Submission ID: S3256D0E6

I would like to make a statement about the impact that this proposed project has already had on our communities and my concerns about what will happen if it is given consent and constructed.
The well-being of our rural South-Norfolk communities is rooted in our strong sense of place and love of this ancient countryside environment. Residents are in nature daily and regard wildlife as a valued part of our shared spaces. Our hundreds of listed buildings root us to our past and create a strong sense of continuity. Many families have been here for multiple generations, tending to, farming, or cherishing this landscape. Many of our residents are elderly, and going out in nature is important to their health, identity and well-being.
The feelings of powerlessness and massive industrial change - fencing, enclosure, exclusion of wildlife - that this project is bringing is already having a serious impact on our communities' well-being. In practical terms it is already causing significant distress, uncertainty and financial problems for families unable to move, to downsize, to release money for retirement, who rely on tourism businesses or businesses supporting farming such as contractors etc. All of our lives and plans, which we thought were secure, have been thrown into complete disarray, with little recognition, consideration, respect or understanding by the applicant.
The applicant's approach to sending LIQs and posting CPO notices (frequently miles from the affected address) has been frightening to local residents and not accompanied by enough information for people to understand what the need for their land is or whether this will be temporary or permanent. There is no support for vulnerable residents on low incomes to seek legal advice. They neither know where to go for advice nor have the disposable income to pay for it up front.
Good renewable energy projects should be collaboratively designed with communities and bring a genuine benefit to them, and to the supporting landscape and ecology. This project has been none of those things. It is being imposed upon us, against our will. Our vulnerable residents have been frightened and contacted multiple times with documents they do not understand and to which they are unable to respond, with no offer of independent support for them.
We do not trust that IGP or Macquarie, as the previous owner of Thames Water, can be trusted as stewards of our landscape, ecology, chalk streams, aquifer, heritage or communities. They have so far not shown us any reason to believe that this project - pursued for 'optionality' and 'attrition' - is for any benefit other than their own and their shareholders' financial profit, or that any need will outweigh the significant harms that this project will cause in this location.

Submission ID: S468AE711

These land parcel objections for sites 3, 6 and 7 were researched and written by BEPS members impacted by the Scheme.
They are part of a group of 11 such land parcel objection documents, covering the entire scheme. The other land parcel objection documents are being submitted by individual Parish Councils.
All of these land parcel objection documents should be read in conjunction with BEPS's Written Representation (already submitted), the LVIA report compiled and submitted by Hempnall Parish Council, and the specialist reports on Barbastelles, Hydrology/Hydrogeology and Cultural Heritage submitted in the BEPS WR appendix.

Submission ID: SE0C00B48

These written representations have been compiled with residents of the village with BEPS-Great Moulton, who are part of BEPS.

Objections submitted in response to East Pye Solar

PINS Reference: EN0110014

Site 1 - Great Moulton:

Assessing the Full Extent of the 1A–1D Development Footprint

Submitted on behalf of BEPS - Great Moulton

[redacted]



Image of Site 1B on the boundary of Great Moulton

DISCLAIMERS

Research Method and Use of AI

This document has been prepared from research undertaken by multiple human researchers using information available at the date of preparation. Sources include East Pye Solar application documents, Planning Inspectorate material, National Grid/NGET information, statutory consultee evidence, relevant government and regulatory material, guidance, best practice and, where relevant, peer-reviewed research.

Given the scale and complexity of the documentary record, BEPS Great Moulton also uses a closed-project bespoke GPT as a research and analytical aid. It assists with organising, cross-referencing and comparing material, identifying links between documents and topics, and supporting analysis of evidence already gathered by the research team.

The GPT is not treated as an independent source of evidence or as a substitute for human judgement. All submissions are reviewed, edited and checked by human members of BEPS Great Moulton. Material sources and significant factual propositions are checked against the underlying documents before reliance is placed upon them, and the authors determine the arguments and conclusions advanced.

This document is therefore a **human-reviewed submission, not an independent expert report**. Responsibility for its contents, accuracy and arguments remains with the authors. AI has been used only as an analytical, cross-referencing and document-management tool within a human-led research and review process.

Where this draft refers to National Grid Electricity Transmission plc (NGET) representations, it relies on the wording quoted in the source document unless the final submission team has separately checked the published Examination Library version.

The Ofgem material is used for a narrow purpose: it supports the proposition that BESS connection deliverability, queue credibility, battery oversupply and network-capacity allocation are live regulatory matters. It is not used to assert that East Pye has lost its connection or that the BESS cannot connect.

It is understood that East Pye Solar has continued to amend, supplement and update material submitted to the Planning Inspectorate during the examination process.

Accordingly, we respectfully ask the Examining Authority to read this submission in the context of the information reasonably available to us at the time it was prepared. Where subsequent Applicant submissions clarify, amend or supersede earlier information, any resulting discrepancy within this document is unintentional and should not be interpreted as an attempt to misrepresent the Applicant's case or evidence.

On behalf of the Village of Great Moulton we have sought throughout to present the Applicant's evidence accurately and fairly, while identifying those matters on which we consider further clarification, evidence or examination is required.

Initial Comments on Submission by the Writers of this Document

Great Moulton residents submit that the East Pye Solar application is unusually difficult for affected residents to understand because the principal effects on Great Moulton are split across multiple application documents, plans, appendices and outline management documents. The issue is not merely volume. It is the absence of one consolidated, parcel-specific explanation of the National Grid Substation, the 400 kV Project Substation, the BESS interface, overhead-line works, pylons, access, drainage, construction compounds, lighting, safety controls and retained infrastructure affecting Site 1.

This submission therefore asks the Examining Authority to test the Scheme as it will be experienced locally: as a concentrated western grid infrastructure hub on and around Site 1 and the BESS, not as a set of isolated technical components.

The Structure of East Pye's documents and lack of clarity, means that we are unable to obtain a full understanding of the design being proposed. From incorrectly labelled images and photographic co-ordinates making it impossible to actually ascertain what and where they have photographed - see document EN01110014, this document actually includes the National Grid Substation although labelled BESS.

The residents' position remains firm: renewable -energy policy does not remove the need to test whether the chosen BESS location is justified and whether its acknowledged impacts are acceptably controlled.

Oxford EN010147 Secretary of State Request

The Secretary of State request for further information in Botley West Solar Farm, EN010147, is not relied upon as a binding precedent. It is relied upon only as a recent comparator showing that, in a large solar NSIP, unresolved issues about alternatives, site selection, grid connection, design evolution, cumulative effects and mitigation can justify further information before determination.

The same type of scrutiny is appropriate here because Land Parcel 1 / Site 1 combines the National Grid Substation, 400 kV Project Substation, overhead -line works, cable routes, pylon works, access requirements, PRoW interactions, Grade 2 BMV land, private-water -supply risk, landscape harm and the functional relationship with the BESS.

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EXECUTIVE SUMMARY

Great Moulton residents object to the concentration of the Scheme's principal western grid infrastructure at and around Land Parcel 1, particularly Sub-Site 1B. The submitted East Pye material confirms that the Scheme includes a new National Grid Substation and a 400 kV Project Substation, Grid Connection Infrastructure, including overhead-line and pylon works, cable routes and BESS infrastructure and associated access, drainage, security and mitigation works. These elements are functionally linked and should be assessed together.

The core objection is not that every topic is wholly unassessed, our objection is, that the acceptability of this locations depends on a transparent, criteria-led and enforceable justification for concentrating long-lived and permanent grid infrastructure close to Great Moulton village, that justification has not yet been provided with sufficient clarity.

The National Grid Substation and Grid Connection Infrastructure are materially different from temporary solar arrays. The East Pye material indicates that solar generation equipment and some project infrastructure would be removed at decommissioning, while the National Grid Substation and Grid Connection Infrastructure would remain in situ.

The planning balance must therefore distinguish temporary generation from retained transmission infrastructure, the effects cannot therefore be treated simply as temporary or reversible.

1. Need, Regional Oversupply and Proportionality

Great Moulton residents do not, in the main, dispute the national policy support for low-carbon generation. However, the issue is whether this particular 500 MW scheme, and especially the Site 1 grid hub and BESS interface, has been justified as necessary, proportionate and least harmful at this location.

The Applicant's own Statement of Need is said to acknowledge that the Site lies at the boundary of the Central England and East Anglia transmission regions and that NESO's Connections Reform process has already prioritised sufficient solar schemes to meet the relevant Clean Power 2030 regional capacity ranges for 2035. If those ranges are already met by prioritised schemes, regional necessity and proportionality cannot simply be assumed from national policy support for solar in principle.

The 2026 connections reform and Ofgem material materially strengthen the need for examination of deliverability and proportionality. Ofgem has stated that the battery queue is far beyond projected system need, with approximately 90 GW either operational or in the reformed queue compared with a projected 29 GW requirement by 2035. Ofgem is consulting on an Oversubscribed Technologies Commitment Fee intended to make the BESS queue more

credible and to ensure scarce grid capacity is held by projects that are serious about progressing.

This does not prove that East Pye cannot connect. It does mean that BESS connection status, connection offer assumptions, network-capacity allocation, likely attrition and the relationship between the solar and BESS components are material matters for the ExA. The Applicant should not be permitted to rely on general national need while avoiding detailed scrutiny of whether this BESS and grid hub are needed and deliverable in this location

Where permanent transmission infrastructure is proposed on high-quality agricultural land in a rural landscape close to Great Moulton, the quality of the site-selection and alternatives case is correspondingly important.

Source: APP/7.11 Statement of Need, including sections 5.3 and 7.2-7.3; APP/7.12 Grid Connection Statement.

2. DCO Certainty, Documentation and Post-Consent Controls

The submitted DCO and the outline plans must provide enough certainty for the ExA to reach a reasoned conclusion on likely significant effects. When critical matters are left to a later detailed ensign, the DCO must secure fixed parameters, approval triggers, standards, monitoring and corrective action, and monitoring obligations where they bear on likely significant effects or site suitability.

The section 51 advice identified the need for precision in document references, document dates, definitions and qualified commitments. This matters, because Site 1 impacts depend on construction access, drainage, firewater containment, noise control, protected species mitigation, utilities protection, PRoW management and decommissioning controls.

Great Moulton residents ask that all commitments bearing on likely significant effectors be converted from board wording such as “where practicable” or “where appropriate”, into binding requirements with approval bodies, objective standards and enforcement routes.

There also appears to be material inconsistency in the description of the BESS location. ES Chapter 4 states that Work No. 2 is the BESS compound “contained within Sub-Site 1B”, while the Non-Technical Summary and other scheme descriptions refer to a separate BESS Site. The Applicant should reconcile those descriptions and confirm that the Environmental Statement assesses the correct worst-case relationship between the BESS, Sub-Site 1B, the National Grid Substation and the Project Substation infrastructure.

Source: PINS section 51 post-acceptance advice, EN0110014-000275; APP/6.1.4 ES Chapter 4, para 4.2.7; APP/6.4 ES Non-Technical Summary.

3. Consultation Adequacy

The consultation concern is practical and substantive. Residents were required to respond to a large technical application whose most important local effects were spread across many documents and changed through design evolution.

Where the grid solution, substation voltage, BESS relationship, pylon works, access requirements or retained infrastructure have materially changed since earlier consultation, the Applicant should provide an auditable before-and-after schedule. That schedule should identify what changed, which receptors were newly or differently affected, what additional assessment was undertaken and why the Applicant says no new significant effects arise.

The ExA should treat consultation adequacy together with the clarity of the environmental information. A community cannot meaningfully engage with a grid hub if it must infer its true scale and operational effects from fragmented plans and outline documents.

The ExA should treat this statutory consultation with caution because consultees were asked to respond to a very large and evolving Scheme, including the BESS, National Grid substation, project substations, cable corridors, 400 kV overhead-line and pylon works, compulsory acquisition powers and a 60-year operational life.

The consultation documents were available electronically without charge and inspection copies were provided at specified locations. However, the section 46/48 consultation material stated that a requested printed copy of the PEIR and PEIR Non-Technical Summary could attract a charge of up to £750.

We do refute that the information was wholly unavailable; its concern is the practical accessibility of a large technical consultation for residents who could not readily use the electronic material, combined with subsequent design evolution and corrections.

Source: APP/5.9 statutory consultation notices/materials; Applicant Adequacy of Consultation material; PINS correspondence and section 51 advice concerning parish-council notification.

4. Land Parcel 1 as the Cumulative Infrastructure Choke-Point

Land Parcel 1 is not simply another solar field . It is the proposed point at which the National Grid Substation, the 400 kV Project Substation, Grid Connection Infrastructure and overhead-line/pylon, cabling, access, drainage, security, construction compounds, PRoW impacts and the BESS interface converge in a confined rural area.

We submit that this convergence produces a local cumulative effect. Residents, walkers, farmers, emergency services and PRoW users will experience the combined infrastructure, not separated topic chapters.

The ExA should therefore require a place-based Great Moulton / Site 1 cumulative assessment.

5. Site Selection - Unlawful or Inadequate Alternatives

Great Moulton's concern is not that the Applicant has produced no alternative material, the issue is whether the selected location has been tested transparently and consistently against environmental land-use, community and safety criteria.

When Norwich Main was discounted, the Applicant pursued a new 400kV connection along the Bramford to Norwich line. We accept that an alternative exercise was undertaken. The evidence does not yet demonstrate that Great Moulton was selected as the least harmful location.

We ask the Examining Authority to look carefully at the chronology, particularly the role of landowner willingness.

APP/7.20 paragraph 6.1.3 states that suitable land "with willing landowners wishing to participate in the Scheme" was identified at the same time as undertaking discussions with NGET about the grid connection.

Paragraph 6.1.7 confirms further that during Stages 2 and 3, land agents identified large landholdings with potentially willing landowners, which were then evaluated and taken forward to EIA Scoping.

This shows that landowner willingness was already influencing the process before the January 2025 EIA Scoping exercise.

APP/7.20 records the original National Grid Substation alternatives at Newton Flotman, Tharston/Tasburgh and Long Stratton — Options 1, 2 and 3 — before Great Moulton was introduced as the additional Option 4.

However, APP/7.20 does not clearly explain for Options 1, 2 and 3:

- whether the relevant landowners were approached
- when they were approached
- whether they were willing to participate
- whether those sites were available on the same voluntary basis as the Great Moulton land.

By January 2025, the EIA Scoping material showed both the southern Great Moulton location and the alternative location within what became Sub-Site 1B. APP/7.20 paragraphs **3.5.20–3.5.22** confirm that the southern location was initially the proposed site, with Site 1B as the alternative.

Paragraph 4.6.1 later confirms that the Applicant had established that landowners for the identified sites were willing to enter into voluntary agreements.

APP/7.20 paragraph **3.6.24** expressly records that alternative land within Siting Zone 2, south of Station Road and west of the railway, **was not selected because a willing landowner was not**

forthcoming. We would submit that this demonstrates landowner willingness was capable of determining whether potentially suitable land remained within the alternatives exercise.

We therefore ask the Examining Authority to require a clear chronology for Options 1, 2, 3, 4A and 4B, identifying:

- the date each option was first considered
- When landowners were first approached
- whether that landowner was willing to participate
- whether land availability was established **before or after** the environmental and technical assessment of that option.

Without that information, it is difficult to establish whether landowner willingness was simply a final deliverability check, or whether it **materially narrowed the alternatives before they could be compared on an equal basis.**

Source: APP/7.20 Site Selection Assessment, including the Norwich Main and Great Moulton option appraisal; Applicant references to the Horlock Rules.

6. Permanent Loss of Grade 2 BMV Agricultural Land

The agricultural-land case should be stated precisely. Site 1 and the National Grid infrastructure affect good quality BMV Grade 2 land, this infrastructure and project substation infrastructure are not comparable to raised solar arrays, because they involved hardstanding, foundations, access, drainage, operational compounds and retained infrastructure.

The Applicant should explain, when the early selection exercise relied on provisional Grade 3 land and later detailed ALC evidence identified Grade 2 land, why did this evidence not trigger reconsideration of the grid hub and BESS location, If it didn't the reason should be stated.

The ExA should require a field-by-field BMV schedule distinguishing temporary, long-term and permanent land take, including Site 1A-1D, the BESS Site, access, cabling, compounds, substations and mitigation land.

Source: APP/6.1.15 ES Chapter 15; APP/6.4 ES Non-Technical Summary; Outline Soil Resource Management Plan / detailed ALC evidence.

7. Groundwater, Private Water Supplies and Pollution Control

The water objection is not that East Pye has ignored water entirely. The remaining concern is the extent to which critical site-specific controls are deferred. The Outline CEMP provides for ground investigation before construction and states that a Foundation Works Risk Assessment will be undertaken post-consent for structures requiring deep foundations and/or piling, such as the Project Substations. A Hydrogeological Risk Assessment may also be required for trenchless crossings that interact with aquifers, watercourses or sensitive ecological receptors. For a permanent high-voltage installation involving transformers, oils, fuels, concrete works, impermeable areas and emergency/firewater considerations,

The ExA should require a single source-pathway-receptor note for Great Moulton / Site 1 and the BESS, covering baseline water-quality testing, private water supply identification, hydrogeological pathways, trenchless works, piling, oil containment, firewater containment, drainage exceedance, monitoring, response triggers and alternative supply arrangements.

Pollution-control measures should be secured through DCO Requirements and certified plans, not left as non-specific post-consent construction management.

Source: APP/6.1.9 ES water-environment assessment and appendices; APP/7.1 Outline CEMP, including ground investigation and Foundation Works Risk Assessment commitments; relevant consultation responses from the Environment Agency.

8. Compulsory Acquisition and Funding Evidence

Compulsory acquisition must be considered with alternatives and necessity. If the site-selection case is not robust, the case for acquiring or interfering with land and rights at Site 1 is correspondingly weakened.

The ExA should require the Applicant to show that each parcel and right within Site 1A-1D, Station Road, Frith Way, Hundred Lane and associated PRoW / utility land is necessary, proportionate and no more extensive than required for the authorised development.

Source: PINS section 51 post-acceptance advice, EN0110014-000275; Applicant Funding Statement and compulsory-acquisition documents.

9. Ecology and Barbastelle Deliverability

The Applicant's bat evidence records that the Order Limits fall within the Core Sustenance Zone of several known Barbastelle maternity colonies in surrounding woodland. The Ground Level Tree Assessment also identifies numerous trees with potential roosting features and states that, if bats are confirmed roosting in a tree that would be affected, an appropriate European Protected Species mitigation licence would be required before those works.

The Applicant seeks to avoid effects through retention of trees and hedgerows, buffers and lighting controls. BEPS's point is therefore one of deliverability: the final design of the 1B grid infrastructure and its associated lighting, access and construction disturbance should demonstrably maintain the ecological connectivity on which the assessment relies. If a licensable effect cannot be avoided, the statutory licensing tests, including the absence of a satisfactory alternative, become relevant.

PINS also noted at acceptance that the HRA material did not include the relevant Natura 2000/citation data sheets and recommended that these be supplied. That is an audit-trail issue that the competent authority should resolve; it is not, by itself, proof that the HRA conclusions are wrong.

If the final design requires a European Protected Species licence, the ExA should examine whether the no-satisfactory-alternative test can realistically be satisfied where the alternatives case for Site 1B remains contested.

Source: APP/6.1.8 ES Ecology and Biodiversity; APP/6.3.8.5 Ground Level Tree Assessment; PINS acceptance checklist / HRA observations.

10. Safety, Access, Rail and Aviation

Site 1 is a safety-critical infrastructure hub. Fire safety, transformer delivery, abnormal loads, emergency access, rail interface, aviation and glint / glare are not secondary construction details. They bear directly on site suitability.

The Applicant should provide one safety and emergency-response schedule for Site 1 and the BESS, including access widths, turning, cordons, smoke plume, water supply for firefighting, contaminated runoff, transformer incidents, battery incidents, road closures, railway interface, aviation safeguarding and emergency-service consultation outcomes.

10.1 Failure to Provide a Site-specific Norfolk Fire and Rescue (NFRS)

The NFRS have expressed their concerns regarding the proposed changes to the siting to the National Grid 400kV substation and the location change of the 132 kV substation upgraded to 400kV. They have particularly raised serious concerns given the close proximity to nearby residents in Great Mouton in the event of any fire or other emergency

The emergency-response assessment should be Site 1-specific and should include the National Grid Substation, 400 kV Project Substation, transformers, switchgear, oil containment, control buildings, cabling, access and firefighting water. It should not be limited to the BESS.

It should record NFRS consultation and secure any required controls.

BEPS-Great Moulton requested the ExA to require a site-specific Norfolk Fire and Rescue Service consultation schedule, showing what NFRS has requested, what the Applicant has accepted, what remains outstanding and how controls will be secured.

Source: APP/7.5 Outline Battery Safety Management Plan and related fire-emissions material; submitted drainage and emergency-management documents.

10.2 Abnormal Loads, Station Road and Rail Interface

Transformer delivery to the National Grid Substation and 400 kV Project Substation requires abnormal-load planning. Station Road, Frith Way, Lodge Road, Hundred Lane and the local railway interface should be assessed together for resilience, traffic management and emergency access.

The ExA should not accept that abnormal loads can be resolved solely through a later Construction Traffic Management Plan unless the critical route assumptions, structures, swept paths, verge protection, road closures and emergency arrangements are already fixed in principle.

Source: APP/6.3.11.1 Transport Assessment, including abnormal-load routing to Sub-Site 1B and the description of B1134 Station Road.

10.3 Aviation and Glint / Glare

Aviation and glint/glare effects are relevant to road safety, residential amenity and local aviation activity. The source material identifies Seething, Long Stratton, Hardwick, Topcroft Farm and Nut Tree Farm airfields, Norfolk Gliding Airfield, and consultation concerns relating to glint and glare, EFATO and thermal updrafts. For Land Parcel 1, these issues must be considered alongside solar panels, new overhead-line works, pylons, substations and associated construction activity.

The ExA should require confirmation that the final western infrastructure is within the aviation and safeguarding assumptions assessed, and that any consultant conditions are secured before operation.

Source: APP/6.1.18 ES Other Environmental Topics; submitted Glint and Glare and aviation / high-level investigative reports, including APP/7.27.

11. Overall Position

It is submitted that Land Parcel 1 / Sub-Site 1B has not been transparently justified as the location for the principal grid hub of the East Pye Solar scheme. Our case is that Land Parcel 1 / Sub-Site 1B remains the critical point at which the Scheme's alternatives, cumulative effects, permanent infrastructure, protected-species, groundwater, agricultural-land, access, safety and compulsory-acquisition issues come together. The Applicant has produced substantial assessment material, but the Examining Authority must be satisfied that the final configuration is justified by a transparent alternatives case and controlled by enforceable requirements that keep it within the assessed environmental envelope.

The cumulative impact of the scheme will crystallise in this area: Noise, lighting, traffic, 24-hour operational presence, security fencing, heavy plant, cable trenching, tower removal and replacement, transformer deliveries, residential amenity impacts, landscape effects and land-acquisition pressures all converge here. Yet the Applicant has not provided a focused cumulative-impact assessment for Great Moulton / Land Parcel 1 reflecting that exceptional concentration of infrastructure.

Nor has the Applicant provided a sufficiently neutral alternatives appraisal. Chapter 5 recognises that reasonable alternatives must be described with the main reasons for the chosen option, taking account of environmental, social and economic effects. However, the choice of

Sub-Site 1B is presented largely as a constrained outcome following the rejection of Norwich Main and a subsequent search along the Bramford–Norwich 400kV line. That does not demonstrate that this location is the least harmful or most appropriate site for a major rural grid hub.

We would further object that the Applicant relies on a flexible and deferred design envelope for critical infrastructure, including the National Grid Substation, Project Substations and Grid Connection Infrastructure. Flexibility may be acceptable for limited detailed design matters, but not where it prevents affected residents from understanding the likely effects of the Scheme's most intensive infrastructure on their homes, village, access, landscape, amenity and safety.

The ExA should require a consolidated Site 1 Grid Hub Statement, a revised alternatives appraisal, a National Grid / NESO / NGET delivery statement, a place-based cumulative effects assessment and a schedule of enforceable DCO controls before placing significant weight on the Applicant conclusions.

Examination Requests

On behalf of Great Moulton, Tivetshall and Wacton, we respectfully request that the Examining Authority require East Pye, and NGET where relevant, to provide a coordinated response to the matters set out below.

These requests are intended to test whether the Scheme is sufficiently defined, assessed and secured for determination. They do not seek to transfer the Applicant's design, assessment or evidential responsibilities to local residents.

- Provide a definitive Site 1 Grid Infrastructure Reconciliation Plan and Schedule covering Sub-Sites 1A–1D, the National Grid Substation, 400 kV Project Substation, Grid Connection Infrastructure, overhead-line and pylon works, underground cables, construction compounds, access routes, drainage, security infrastructure, mitigation land and the interface with the BESS. For each component, identify the relevant Work Number, maximum parameters, land requirement, temporary or permanent status, delivery body, operational responsibility and decommissioning position. [APP/6.1.4; APP/2.3; APP/7.12; APP/7.18]
- Confirm the final or presently assumed grid-connection solution and its deliverability, including the respective responsibilities of East Pye and NGET for design, construction, land, consent, operation and maintenance of the National Grid Substation, overhead-line works and associated Grid Connection Infrastructure. Identify which elements are fixed and which remain subject to NGET detailed design or further agreement, and demonstrate that any remaining flexibility cannot produce materially different environmental effects. [APP/7.12]
- Reconcile the current connection position for the solar and BESS components and explain the consequences for Site 1 if their connection rights, timing or configuration differ. This should include confirmation that the Site 1 land take, substation configuration, cable infrastructure and environmental assessment remain justified under each realistically deliverable connection scenario. [APP/7.11; APP/7.12]
- Provide a dated and auditable National Grid Substation alternatives chronology for Options 1, 2, 3, 4A and 4B, identifying when each option was identified, assessed, refined and discounted or selected; the evidence available at each decision point; and the technical, environmental, access, residential, land-use and planning criteria applied.
- Provide a common side-by-side comparison of Options 1, 2, 3, 4A and 4B, using consistent criteria and identifying the contemporary evidence supporting each assessment. Where different levels of technical investigation were undertaken—for example highway, abnormal-load, landscape, flood-risk, ecology, heritage or PRoW work—the Applicant should explain why the comparison remained robust. [APP/7.20]

- Explain transparently how land availability and landowner willingness influenced site selection. The Applicant should identify when those considerations entered the process, distinguish locations rejected on environmental or technical grounds from locations not progressed because land was unavailable, and demonstrate that reasonable alternatives were not excluded from meaningful comparison solely because voluntary land agreements were not available. [APP/7.20; APP/7.15]
- Provide a Horlock Compliance Schedule for the Site 1B Grid Hub, prepared with NGET input where appropriate, showing how the relevant principles influenced site selection and design, including local amenity, landscape and screening, residential proximity, noise, agricultural land, groundwater, ecology, PRoW, access and the concentration of infrastructure at Site 1B. [APP/7.20; APP/7.14]
- Provide a design-options statement for the National Grid Substation and 400 kV Project Substation, explaining the consideration given to AIS, GIS, hybrid or other compact arrangements and alternative layouts. Where an alternative was studied and rejected, provide the reasons; where it was not studied, explain why it was not considered a reasonable design alternative. Demonstrate that the retained design envelope represents the assessed worst case for footprint, height, visual effects, noise, drainage and land take.
- Identify every environmentally material matter remaining flexible under the Rochdale Envelope and provide a compliance schedule linking each matter to the relevant maximum parameter, ES worst case, certified document, DCO Requirement, approval body and verification mechanism. The Applicant should demonstrate that detailed design cannot exceed the environmental effects assessed. [APP/6.1.4; APP/7.18; APP/7.26]
- Provide a definitive statement on permanence and decommissioning. This should distinguish the infrastructure intended to be removed after the approximately 60-year operational period from the National Grid Substation and Grid Connection Infrastructure intended to remain, identify any secured end date for the retained infrastructure, and show the post-decommissioning Site 1 landscape including retained access, pylons, cables, drainage, fencing and mitigation planting. [APP/6.1.4; APP/7.3]
- Confirm the long-term management and legal control of mitigation associated with retained National Grid infrastructure, including which planting would transfer to NGET, the maintenance obligations applying after East Pye's decommissioning, and the mechanism securing those obligations for as long as the retained infrastructure remains.
- Provide a field- and component-specific Agricultural Land Classification and BMV schedule for Site 1A–1D and associated grid works, distinguishing temporary disturbance, long-term occupation and permanent loss caused by substations,

foundations, piling, access, drainage, construction compounds, pylon works and retained infrastructure. Explain whether the later identification of Grade 2 BMV land caused the earlier site-selection conclusions to be reconsidered and, if not, why not. [APP/6.1.15; APP/6.3.15.1]

- Provide a Site 1 landscape and residential visual reconciliation, assessing the combined National Grid Substation, Project Substation, solar arrays, pylons, fencing, security infrastructure, access and mitigation rather than treating those elements independently. Provide verified plans and representative visualisations from the most affected Great Moulton receptors and PRoW, with coordinates, camera position, lens/focal-length information and measured relationships to the development envelope. [APP/6.1.7; APP/6.3.7.9]
- Demonstrate the cumulative operational noise effects of the complete Site 1/BESS electrical infrastructure cluster, including the National Grid Substation, Project Substation, BESS, transformers, inverters, switchgear and cooling equipment. The assessment should identify the final or maximum plant assumptions, representative quiet night-time conditions, tonal and low-frequency characteristics, mitigation relied upon and the combined noise limit applying to the completed development. [APP/6.1.12; APP/7.2]
- Secure post-installation acoustic verification and corrective mitigation, so that compliance is demonstrated using the equipment actually installed and operated. The control should address tonal, low-frequency or otherwise distinctive noise as well as overall A-weighted sound levels and should prevent later plant replacement from exceeding the assessed envelope.
- Provide a consolidated Site 1 groundwater and Private Water Supply Source–Pathway–Receptor assessment, covering PWS identification, baseline water quality and yield where required, piling and deep foundations, cable trenches and trenchless works, transformer oils, contaminated runoff, drainage, monitoring, trigger levels and alternative-supply arrangements. [APP/6.1.9; APP/6.1.16; APP/7.1]
- Demonstrate before relevant works commence that deferred ground investigation and Foundation Works Risk Assessment requirements refine an environmentally acceptable design rather than determine post-consent whether an acceptable solution is achievable. Identify the limits on piling, foundation design and penetrative works that protect groundwater and PWS receptors. [APP/7.1]
- Provide a coordinated drainage, pollution-prevention and emergency-containment plan for the Site 1 Grid Hub, distinguishing clean surface water from potentially contaminated drainage and addressing transformer-oil containment, extreme rainfall, exceedance routing, containment-system failure and interaction with BESS firewater where relevant.

- Provide a definitive construction, abnormal-load and operational-access schedule for Site 1, reconciling Station Road, Frith Way, Lodge Road, Hundred Lane/RB19, A01/A02 and all other relevant accesses and haul routes. It should identify the purpose of each route, vehicle type, frequency, construction or operational use, temporary or permanent status, necessary highway works, PRoW crossings and emergency-access arrangements. [APP/6.1.11; APP/6.3.11.1; APP/7.6]
- Confirm the purpose and permanence of the Hundred Lane/RB19 crossing and any other retained maintenance access. Where an access is required for infrastructure intended to remain beyond the solar operational period, that potentially indefinite use should be identified and assessed accordingly; where it is not required after decommissioning, the restoration obligation should be secured.
- Provide a Site 1 PRoW reconciliation schedule covering FP13, FP14, RB19/Hundred Lane and all other affected routes, identifying closure periods, crossings, permanent access use, vegetation removal, safety controls, residual visual effects and restoration. The assessment should address the PRoW network as a connected recreational and landscape resource rather than only as individual route segments. [APP/6.3.7.9; APP/7.8]
- Demonstrate that the final Site 1 grid-infrastructure layout remains within the ecological assessment, including hedgerows, trees, ponds, ditches, bat flight lines and dark corridors, breeding birds, great crested newts and other protected species. Identify any licensing dependencies and demonstrate that access, drainage, lighting, fencing and final infrastructure locations do not undermine mitigation or ecological connectivity relied upon in the ES.
- Provide a coordinated operational-lighting and security plan for Site 1, showing permanent, maintenance and emergency lighting; CCTV locations and heights; switching and control arrangements; spill limits; ecological dark corridors; residential receptors and PRoW. Assumptions that lighting will be temporary, exceptional or inward-facing should be secured where relied upon by the environmental assessment.
- Provide an integrated Site 1 emergency-response statement, prepared with NGET and the relevant emergency services where appropriate, covering the National Grid Substation and Project Substation as well as the BESS interface. It should address transformer and electrical incidents, firefighting access, water supply, oil and contaminated-water containment, cordons, road restrictions, emergency access and the responsibilities of each operator.
- Demonstrate that EMF exposure from the final combined infrastructure remains within the assessment and applicable public-exposure standards, showing the relevant overhead lines, underground cables, substations and nearby residential and PRoW

receptors, and identifying any design assumptions or minimum separation distances relied upon.

- Provide a consolidated utilities and service-protection schedule identifying existing electricity, telecommunications, broadband, water, drainage and other infrastructure affected by Site 1 works, together with protection/diversion arrangements, responsible bodies, emergency repair procedures and service-continuity measures.
- Provide a place-based cumulative assessment for Great Moulton and the Site 1/BESS infrastructure cluster, bringing together landscape and visual effects, operational noise, lighting, access and traffic, PRoW, ecology, heritage, water, agricultural land, safety and residential amenity. The assessment should include construction, operation, foreseeable replacement activity, decommissioning and the retained National Grid infrastructure rather than limiting the assessment to individual technical chapters.
- Provide a whole-life infrastructure and replacement schedule identifying reasonably foreseeable replacement of transformers, switchgear, electrical plant, solar equipment and BESS equipment and demonstrating that associated abnormal loads, traffic, lifting operations, noise, temporary compounds and other construction-type effects remain within the assessed and secured envelope.
- Provide a consultation and design-change audit for Site 1, identifying material changes between Scoping, statutory consultation, targeted consultation and the DCO application, including changes to the National Grid Substation, Project Substation, pylon/OHL works, access, cable routes and the relationship with the BESS. For each material change, identify the affected receptors, additional assessment undertaken and consultation carried out.
- Demonstrate the necessity and proportionality of the land and rights sought for Site 1 and the Grid Connection Infrastructure, including land and rights required for permanent National Grid infrastructure, temporary works, access, PRoW, utilities and mitigation. Where the final NGET design remains flexible, explain how the compulsory-acquisition case remains no more extensive than reasonably required.
- Provide a change-control schedule requiring consequential documents to be updated where the Grid Hub design changes. Any material change to the National Grid Substation, Project Substation, BESS relationship, overhead-line/pylon works, cable routes, access, drainage or mitigation should identify whether revisions are required to the Works Plans, Land Plans, draft DCO, Book of Reference, Grid Connection Statement, LVIA/RVAA, noise assessment, drainage/FRA, water assessment, ecology/BNG evidence, heritage assessment, soils assessment, traffic assessment, aviation/glint-and-glare material, LEMP or compulsory-acquisition documentation.

- Finally, provide one consolidated Grid Infrastructure Compliance Schedule identifying each material commitment relied upon to conclude that significant effects are avoided or mitigated, the document in which it appears, whether it is secured by the DCO, the approving authority, the stage at which approval is required, the objective standard to be achieved, monitoring and verification arrangements, and the corrective action required if the commitment is not achieved.

Concluding Request

BEPS-Great Moulton does not ask the Examining Authority or local residents to design the Scheme or to reconstruct the Applicant's case from dispersed documents. The Applicant, with NGET where relevant, should demonstrate through the coordinated information above that the Site 1 Grid Hub and associated Grid Connection Infrastructure are sufficiently defined, justified, assessed and secured within an enforceable environmental envelope.

Where information remains dependent upon later detailed design, East Pye should identify the assessed worst case and the binding DCO control that prevents the eventual design, construction or operation from producing effects greater than those examined. Where the final NGET connection solution could materially alter the land, infrastructure or effects now before the Examination, East Pye should demonstrate that the present consent and land powers remain justified before those powers are granted.

Where East Pye relies upon mitigation, a design assumption, an indicative layout, a future management plan or a later approval process in order to reach a “not significant” or otherwise acceptable conclusion, East Pye should identify precisely where that safeguard is secured, the assessment envelope within which it must remain, who is responsible for approving and implementing it, and how compliance will be demonstrated, monitored and enforced.

The central requirement is that East Pye and NGET should demonstrate the final proposition they seek consent for, show that it remains within the assessed worst case, identify the mechanism by which each material safeguard is secured, and provide an auditable means of verifying compliance.

Chapter 1 Introduction



Solar Sites 1a & 1b. (shaded in red)

Gt. Moulton (North)



1.1 Summary of the Historic Landscape of Great Moulton (Moulton St Michael)

Great Moulton should be understood as a historic rural settlement within an open agricultural plateau, not merely as a set of individual receptors. The lanes, PRoW, field boundaries, scattered farmsteads and views form part of the historic and community setting in which the Scheme would be experienced.

Hundred Lane – an Early Administrative Boundary

Hundred Lane reflects the boundary of Depwade Hundred and marks a long-standing territorial division. Medieval settlements were commonly positioned near such boundaries, and the proximity of Hundred Lane to The Sanctuary supports the identification of this area as the core of Little Moulton.

Narrowgate Way – the Medieval Street Line

Narrowgate Way preserves the original street line of the lost village. In Norfolk, gate derives from Old Norse gata, meaning street. Its narrow, bending alignment is characteristic of a medieval village street leading to a church or central cluster of dwellings. Its position directly adjacent to The Sanctuary confirms its role as the main route to Little Moulton.



Photos of the orchids that are prevalent on Hundred Lane this historic right of way.

Frith Way – the Woodland Edge

Frith Way preserves the line of the medieval woodland boundary. The name derives from Old English frith, meaning woodland or wooded pasture.

Broadgate Lane - The Wider Continuation of the Ridge Route

Broadgate Lane, Narrowgate Way, Frith Way, Hundred Lane, and The Sanctuary together form a well-preserved medieval landscape marking the site of Little Moulton and its vanished church, All Saints. Their historic alignments and enduring tranquillity give the area exceptional archaeological, spiritual, and heritage value, making any development here a serious risk to one of the parish's most significant historic environments.

The Lanes and Road Ways are not incidental features. They are part of the surviving rural route network, and their value lies in alignment, vegetation, quietness, openness, public use and relationship with the wider agricultural landscape. A retained legal PRoW line is not the same as retaining the character and amenity of the route.

Where the Scheme proposes haul-route crossings, permanent maintenance access, vegetation removal, screening belts, fencing, lighting or operational traffic around these routes, the assessment should address the physical, visual, recreational and historic change together.



1.2 Great Moulton: Landscape, Heritage and Community

Great Moulton's rural character is defined by its unaltered medieval field patterns and routeways, sitting within the South Norfolk Claylands, it is one of only three Plateau Farmland areas in the district, giving it a landscape of exceptional distinctiveness and sensitivity. The plateau's flat, elevated form, large arable fields, open horizons and sparse settlement pattern create long views and a strong sense of exposure..

The lost settlement of Little Moulton survives through its landscape form—an exceptionally rare continuity that makes the area sacrosanct in heritage

terms. Visitors and pilgrims value its tranquillity, openness and sense of spiritual calm, consistent with NPPF § 174 (a) and (b) on conserving landscape character and heritage assets.

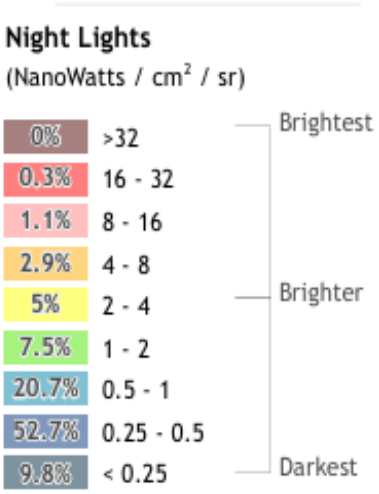


The parish's historic continuity is remarkable. It appears in the Domesday Book (1086) with over 70 households under Count Alan of Brittany. St Michael's Church retains Romanesque masonry from its early construction, and nearby timber-framed houses and moats such as Old Boyland Hall and Wacton Hall reflect the medieval landscape.

Great Moulton residents rely on the surrounding countryside for daily amenity, farming, access, walking, cycling, horse riding, wellbeing and community identity. The significance of harm therefore lies, not only in isolated views, but in the transformation of the village edge and its quiet rural setting.

Dark Skies and Amenity

Great Moulton Falls within England's Light Pollution and Dark Skies Zone B where policies require minimal light spill and protection of nocturnal species.



The proposed scheme's artificial illumination would conflict with these requirements, eroding the dark-sky quality and rural tranquillity that define the parish

The proposal would therefore fail to meet the tests of sustainable development under NPPF 8, § 174 and 185, and should be resisted on grounds of landscape, heritage and amenity impact.

The Site 1 grid hub would introduce an industrial energy character into a landscape currently defined by open farmland, low settlement density, long views, dark skies and a strong sense of rural separation.

This is a material planning consideration even where individual technical chapters predict no significant effect.

Chapter 2 Environmental Impact Assessment Methodology & Scheme Flaws

Introduction

The applicant states the EIA follows the usual sequence of baseline, embedded mitigation, assessment of likely effects, additional mitigation, residual and cumulative effects/in combination effects. It also uses the Rochdale Envelope approach because not all technical details have been determined at application stage. The methodological issue for Site 1A-1D is therefore not the absence of an EIA framework, but the final layouts remain controlled by maximum parameters, minimum offsets and later detailed design, whether the field-level baseline and design assumptions are sufficiently specific and secured for a worst-case conclusion to remain robust after detailed design.

The difficulty for Site 1 is that this broad methodology is only as reliable as the site-specific evidence beneath it. In several places, the ES identifies sensitive features at or close to Site 1, but then relies on generic design principles, future detailed design, outline management plans, or broad judgements of "not significant" without adequately explaining the local harm to Great Moulton residents, PRoW users, landscape character, bats, ponds, ditches and heritage setting is acceptable.

East Pye defines Site 1 comprising of approximately 73.6 ha (181 areas) comprising:

1A – 7.7 ha (19.02) acres – TM 16678 89158
1B – 48.2 ha (119.10 acres) – TM 17091 89199
1C – 13.9 ha (34.35 acres)– TM 16676 88715
1D – 3.8 ha (9.39 acres) – TM 17224 88509. **NSIP Documents**

There is no separate single centred NGR stated for the whole 73.6 ha Site 1 the Applicant provides one for each sub-site.

East Pye's own evidence establishes Site 1 as a large, open agricultural landscape on a flat elevated plateau, with expansive skies and a recognised PRoW network. It acknowledges nearby homes and the village edge of Great Moulton, predominantly Grade 2 agricultural land north of Hundred Lane, and a range of landscape, recreational and environmental constraints. NSIP Documents

East Pye then at the Targeted Consultation Site 1B became the location for the National Grid Substation, 400 kV Project Substation and associated OHL/grid infrastructure, with the Applicant explaining the choice principally through proximity to the 400 kV line, flood-risk and PRoW comparisons with Option 4A, existing vegetation and grid/technical requirements. NSIP Documents

Most significantly, East Pye's own landscape assessment concludes that the construction of Site 1 would cause a Major Adverse Significant effect, describing the development as a substantial change to the site's key landscape characteristics and identifying the scale of the proposed activity as uncharacteristic of its existing agricultural use.

(its difficult to write and research this document without understanding the rationale, behind the choice, to state categorically this will destroy our village but still go ahead)

The EIA should enable the ExA to understand the likely significant effects of the development as a whole. For Great Moulton, that requires integration across scheme description, alternatives, landscape, PRoW, ecology, water, transport, noise, safety, health, agricultural land and cumulative effects.

The principal flaw is fragmentation. Effects are divided across documents, while the village experiences one combined infrastructure hub.

The ExA should require The Applicant to provide a parcel-by-parcel infrastructure schedule for Site 1A-1D, with work number, component, maximum dimensions, footprint, temporary/permanent status, delivery body, decommissioning position and relevant control document and identify every **environmentally material parameter still flexible at site 1 and the exact requirement/commitment that prevents a later layout from creating effects outside the assessed envelope.**

2.1 Missing Private Water Supply Surveys and Consultation

This area falls under the Environmental Agency for Drinking Water Protection (Surface), Many of the the homes within the Great Moulton area rely on private wells and boreholes. Many of these supplies are shallow, not formally mapped, and don’t have much protection. That makes them especially vulnerable to anything that disturbs the ground — trenching, drilling, piling, or the construction of BESS compounds.

Private water supplies should be treated as sensitive receptors requiring positive identification, baseline condition and contingency planning where credible pathways exist. This is particularly important for cabling, piling, drainage, substation hardstanding, transformer oils, BESS firewater and construction compounds.

The ExA should require the Applicant to provide a PWS schedule for receptors within the relevant study area, including whether owners have been consulted, whether baseline quality and yield testing is proposed, and what alternative supply or compensation arrangements would apply if harm occurs.

2.2 Missing Ecological Surveys, Mapping or Consultation

Ecology must be assessed against the final infrastructure envelope, not only against broad solar-parcel assumptions. The final position of lighting, fencing, access roads, haul crossings, vegetation removals, drainage basins and operational areas can materially affect bats, newts, birds, hedgerows and dark corridors.

Where survey data is approaching expiry or does not cover revised areas, the Applicant should confirm how updated survey evidence will be secured before consent or before commencement.

2.3 Telecoms &Emergency Access

Telecommunications and broadband are community-resilience infrastructure in a rural parish. Damage or service loss affects home working, businesses, alarms, medical alerts, education and emergency contact.

The Applicant should provide a consolidated utilities protection plan covering Openreach, Gigaclear, BRN or any community fibre, electricity, water, drains and other affected services, with emergency repair contacts and minimum service-continuity commitments.

2.4 Climate Change

The EIA fails to provide a robust, site-specific assessment of the scheme's resilience to climate change or the potential for the development itself to exacerbate local climate risks. Great Moulton already experiences the effects of more intense rainfall, prolonged dry spells, and higher summer temperatures, and these pressures are projected to increase. A development of this scale must demonstrate how it will perform under future climate conditions, not just current baselines.The EIA also fails to consider whether the introduction of large-scale hard infrastructure could lead to localised overheating, changes in wind patterns, or drought vulnerability affecting adjacent farmland and communities. Great Moulton's agricultural land is already exposed to seasonal water stress, and any reduction in soil moisture or alteration of microclimates could have direct impacts on crop viability, hedgerow health, and the resilience of local wildlife.

The Scheme climate case should cover both greenhouse-gas benefits and adaptation/resilience. The relevant question for Site 1 is whether the grid hub and BESS remain safe and do not worsen local vulnerability under future rainfall, heat, drought and storm conditions.

The ExA should require climate-adjusted drainage modelling for substations, BESS hardstanding, tracks, compounds, cable trenches and panel areas, including exceedance routing and combined firewater / flood scenarios.

2.5 Missing Analysis of Views from Listed Buildings or Impacted Homes

The scale of the proposed changes is substantial, yet the submission significantly downplays the level of disruption and environmental harm that would be brought to the village of Great Moulton. The infrastructure would in some instances be circa. 25m from their garden/land boundaries, with increased pylon and substation heights, 4.5-metre solar panels, security fencing, lighting columns, and surveillance cameras.

This configuration appears to have been developed without meaningful consideration of the local community or the sensitivity of the surrounding landscape. The proximity and sheer massing of this industrial infrastructure would cause severe and long-term disruption to residents' daily lives, eroding residential amenity, tranquillity, and the rural character of the plateau.

The impacts extend beyond people. The plateau supports a range of wildlife that relies on its



Solar Sites 1a & 1b. (shaded in red) **Gt. Moulton** (North)

open, connected habitats. The introduction of tall, dense, and illuminated structures would fragment these habitats, displace species, and fundamentally alter the ecological function of the area.

Taken together, the proposal would transform a rural landscape into an industrialised zone, with consequences that have not been adequately assessed, mitigated, or justified. The community and its environment deserve far more rigorous consideration than this scheme currently provides.

The residential visual issue should be resident-led. A village-edge view toward a 400 kV grid hub, palisade fencing, security equipment, pylon works and substation plant is qualitatively different from a view toward solar panels alone.

The ExA should require verified photomontages or representative visualisations from Oak Lodge, Laburnham Farm, Potters Crescent, the south side of High Green, Frith Way, Hundred Lane and relevant PRoW locations.

2.5.1 Oak Lodge, High Green, Great Moulton



Oak Lodge should be assessed as a sensitive receptor potentially affected by proximity, outlook, construction activity, operational noise, lighting, security fencing and the perceived industrialisation of the village edge. A plan-only separation distance does not capture the actual residential experience.

The Applicant should identify whether this receptor is included in the Residential Visual Amenity Assessment, noise assessment, glint / glare assessment and construction traffic / dust assessment, and if not, explain why it was excluded.

2.5.2 Laburnham Farm House, High Green, Great Moulton

Laburnham Farm House and associated land uses should be considered for visual, noise, amenity, ecological and agricultural effects, including impacts on gardens, outdoor use, apiaries, livestock or rural business activities where relevant.

The Applicant should identify whether this receptor is included in the Residential Visual Amenity Assessment, noise assessment, glint / glare assessment and construction traffic / dust assessment, and if not, explain why it was excluded.







2.5.3 Potters Crescent

Potters Crescent should be assessed not only by distance to the substation footprint but by the combined appearance and activity of the National Grid Substation, 400 kV Project Substation, pylons, access and construction phase.

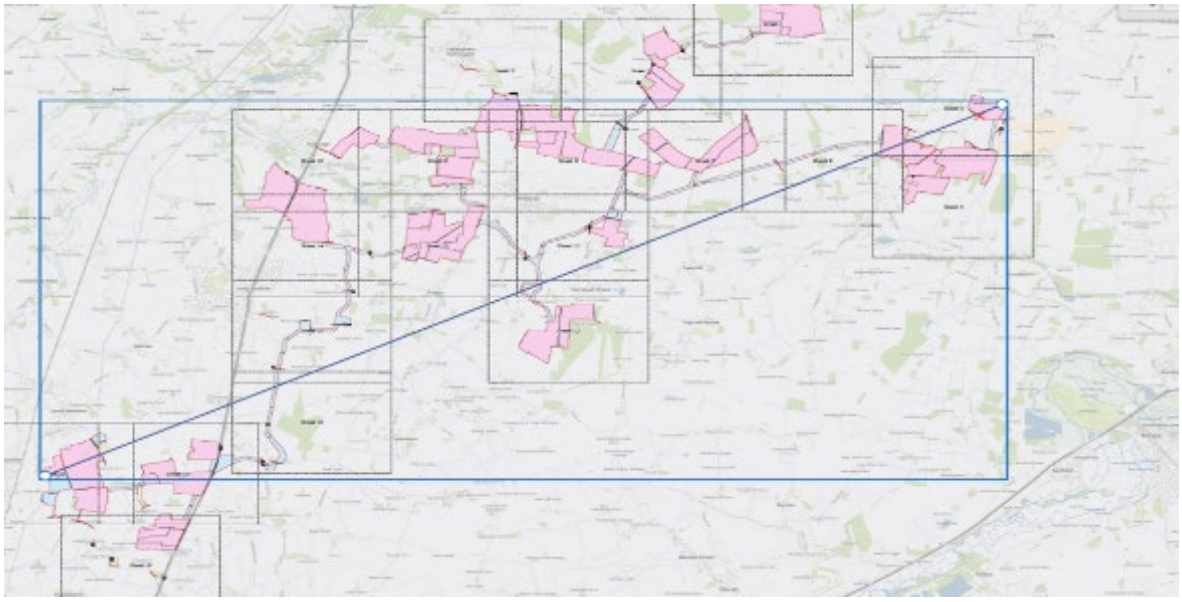








Chapter 3 The Order Limits - Site and Surroundings



3.1 Site Selection, Retention and Reasonable Alternatives

East Pye Solar state in their Site Selection Assessment document APP/7.20 / APP215 sets out a site selection methodology and identifies policy preferences, therefore we do not state that East Pye did not undertake any site selection exercise.

Our issue is narrower, how that strategic methodology was then translated into later inclusion and retention and refinement of Site 1 and sub-sites 1A-1D following the change in the Point of Connection.

APP/7.20 records that The Applicant has not undertaken a detailed assessment of every unconstrained agricultural parcel. Instead, it focused in large part upon large landholdings identified through land agents as having potentially willing landowners and ultimately upon land which landowners were willing to make available.

APP/7.20 also records that the land originally coming forward for solar development comprised eight sites elsewhere and that Sites 1 and 2 were subsequently added after the Point of Connection had been identified on land south of Great Moulton. The Applicant further records that land availability was an important consideration and that some potentially suitable alternative land was not progressed because it had not been made available to the Applicant.

This may be a legitimate factor, for land availability, deliverability and commercial. However, this is not the same as environmental suitability. The examination issue is therefore not whether a site-selection exercise took place, but whether the submitted evidence allows the ExA to understand clearly:

- why each of Sub-Sites 1A, 1B, 1C and 1D was added once the Point of Connection changed;
- what environmental, technical, land-availability and commercial considerations were applied to each parcel;
- why each parcel remained necessary as the design evolved and environmental constraints became better understood; and
- whether reasonable opportunities to avoid or reduce effects through parcel deletion, whole-field removal, further reduction or use of other reasonably available land were considered.

We would submit that this distinction is particularly important because the level of explanation is not the same for all parts of Site 1.

Requested Examination Action

BEPS therefore asks the ExA to consider requiring the Applicant to provide one consolidated and auditable Site 1 selection and design-evolution schedule, drawing together information presently dispersed across APP/7.20, ES Chapter 5, the Design Approach Document and the relevant technical assessments.

The schedule should identify, for each of Sub-Sites 1A, 1B, 1C and 1D:

1. When and why the parcel entered the Scheme, including its relationship to the change in the Point of Connection.
2. The function and development proposed within the parcel, distinguishing solar generation land from National Grid infrastructure, Project Substations, Grid Connection Infrastructure, overhead-line works, cables, access, mitigation or other uses.
3. The environmental, technical, operational, commercial and land-availability criteria applied, together with sufficient explanation to understand how those considerations influenced the decision to select and retain the parcel.
4. The principal constraints subsequently identified through environmental assessment, consultation and design evolution, and the design changes made in response.
5. The reasonable design alternatives considered after those constraints became known, including where relevant further reduction, removal of individual fields or parts of fields, deletion of the parcel, relocation of infrastructure and use of other reasonably available land.
6. For Sub-Site 1B specifically, an integrated explanation of why the selected location remains appropriate when the cumulative presence of the National Grid Substation, Project Substation infrastructure, Grid Connection Infrastructure, overhead-line works,

access requirements and the adjoining BESS is considered together, rather than solely through the earlier comparison between National Grid Substation Options 4A and 4B.

7. A clear distinction between land which was environmentally or technically unsuitable and land which was potentially suitable but was not available to the Applicant.

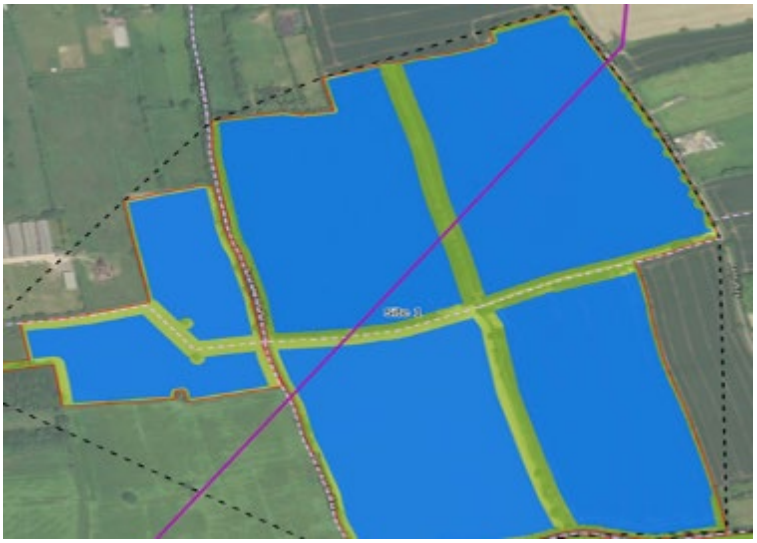
This would not require the Applicant retrospectively to demonstrate that Site 1 was the theoretical “best” or “least harmful” site. Rather, it would allow the ExA to understand the Applicant's actual decision-making process and determine whether the reasonable alternatives that were studied, and the subsequent decisions to retain and refine Sites 1A–1D, have been explained with sufficient environmental and design justification.

Source basis: APP-215 / APP/7.20 Site Selection Assessment, particularly sections addressing the National Grid Substation and Point of Connection alternatives, solar site-search methodology, landowner availability, Potential Development Areas and Alternative Development Zones, and the later addition of Sites 1 and 2; APP-041 / APP/6.1.5 ES Chapter 5 – Reasonable Alternatives and Design Evolution; and APP-212 / APP/7.17 Design Approach Document.

3.2 Site Selection, Location and Context

The Order Limits create a long linear scheme, but the Great Moulton objection concerns the western concentration of infrastructure. Site 1 and the BESS cannot be understood by reading individual parcels in isolation.





Drone shot shows proximity of solar fields & national grid substation to Great Moulton



Sites 1A, 1B

Gt. Moulton - Looking North West

Red = Solar Sites
Yellow = Cable Route Corridors



3.3 National Grid Connection Point

The Grid Connection Statement describes a new National Grid Substation and associated 400 kV connection infrastructure. The source draft records NGET as qualifying the certainty of the final connection solution.

The NetG representation raises the doubt.

We would therefore ask the Planning Inspector to raise any concerns regarding NetG's response.

"Representation by Bryan Cave Leighton Paisner LLP on behalf of National Grid Electricity Transmission Plc Date submitted 10 June 2026

Netgrid state It is important to note in this context that it is NGETs understanding that the new connection agreement will not include the requirement for the Applicant to secure land or consent for the National Grid Substation.

National Grid remains committed to constructive engagement with the promoter as their project develops and the notification of a Gate 2 offer for their solar component of the project demonstrates that engagement will be ongoing to project delivery.

In the Applicant's Grid Connection Statement, it is stated that there are responsibilities for NGET to design and construct the National Grid Substation.

For the avoidance of doubt, should the Applicant receive consent for the National Grid Substation as part of the Order, this does not trigger or constitute any obligation for NGET to accommodate any connection to the national grid at such a substation. The wider regulatory and commercial context needs to be fully considered and worked through before the location of the new substation can be confirmed.

Although the Connection Reform process is still ongoing, all customers with a Gate 2 offers will, in part, influence the final size, design and location of the final point of connection solution. However, until those Gate 2 offers have been finalised, NGET cannot confirm what that solution will be but must always act in accordance with its statutory duties to provide an economic and efficient connection network."

This makes the precise scope, deliverability and responsibility for the grid works a central examination issue.

3.3.1 Connection status and consequences for Site 1B

The NGET material quoted above distinguishes the Gate 2 offer for the solar component from the wider connection solution. BEPS's Consolidated Summary of Written Representations records that the associated BESS remains at Gate 1, with no confirmed indicative connection date. That distinction does not establish that the BESS will not ultimately connect; it does mean that the solar generation and BESS should not be assumed to have identical connection rights, timing or delivery certainty.

This matters because the Application relies on the BESS for storage, flexibility and wider system benefits.

The Examining Authority should require the Applicant to identify separately the current connection status of the solar generation and BESS; the import and export rights presently secured for each; whether the BESS operating case assessed in the Application remains valid if it remains at Gate 1; and what changes if the BESS is delayed, reduced or does not secure the anticipated connection rights.

NGET's position also has a direct consequence for necessity. If the replacement connection agreement is not expected to require East Pye to secure land or consent for the proposed National Grid Substation, DCO consent would not oblige NGET to use that substation, and the final connection solution remains unresolved, **the Examining Authority should establish why permanent authorisation and land powers for this particular Site 1B solution are necessary now.**

The Applicant should therefore demonstrate that the environmental assessment, site-selection case, land take and compulsory acquisition case remain robust if NGET's eventual connection



solution differs materially from that currently shown.

3.4. Targeted Consultation - October 2025

The consultation undertaken for the East Pye Solar Project was not adequate because consultees were repeatedly asked to engage with a scheme that was neither stable nor accurately described. The statutory consultation proceeded on the basis of an incomplete and evolving design, with errors in parish identification, land-interest mapping, and scheme

description that were only corrected after the consultation had closed. The Applicant's subsequent targeted consultations—including Lime Down, Pulham Market, and Framingham Earl—demonstrate that significant areas and receptors were not properly identified at the statutory stage. These post-hoc exercises relied on short brochures and partial updates rather than a revised PEIR, materially limiting consultees' ability to understand the environmental significance of the changes. The consultation record therefore shows that affected communities were not given a fair or informed opportunity to comment on the actual scheme now before the Examining Authority. As a result, the Applicant cannot rely on its consultation history as evidence of compliance with the requirements of Chapter 2 of Part 5, and the adequacy of consultation remains a live and unresolved issue.

3.5 Key objection points arising from the Order Limits material

The Order Limits material supports the characterisation that Site 1 is not merely a solar field, but as a grid infrastructure hub.

Work numbers, land rights, access routes, pylon works and mitigation land should be scheduled together so the ExA can see what is temporary, permanent or retained.

3.6 Nearby Residential Dwellings – Sites 1A to 1D and the BESS

The Site and Surroundings chapter also identifies nearby homes at Great Moulton, individual dwellings close to Sub-Sites 1A and 1B. Nearby dwellings should be listed in one schedule showing distance to panels, substations, BESS, access tracks, cabling, haul routes, compounds, lighting and construction works. The absence of this environmental schedule makes the local effect harder to test.

3.7 Grade 2 BMV Land

The Order Limits record that all of Site 1 north of Hundred Lane is ALC Grade 2, that the National Grid Substation would permanently remove 6.1 ha of Grade 2 land, and that both the Project Substation in Sub-Site 1B and the Project Substation in the BESS Site would also be on Grade 2 land. The BESS itself is also proposed on Grade 2 land, with East Pye expressly acknowledging that the BESS Site is essentially all Grade 2 quality.

We submit that the Applicant should not rely on general renewable-energy needs to avoid a precise assessment of permanent and long-term agricultural land loss.

3.8. Plateau Farmland Sensitivity to Industrialisation



The Great Moulton plateau is sensitive because of openness, long views and low levels of built form, its character depends on uninterrupted skylines and the legibility of historic field patterns.. Once industrial elements are introduced into Plateau Farmland, the sense of openness and rural scale is permanently altered, and the landscape can no longer function as a coherent agricultural plateau.

Future planting may screen elements over time but will also alter the appearance, function, and cultural identity of Great Moulton's rural environment.open character. Screening is mitigation, not avoidance.

Views from local houses where both the 400Kv national grid substation and 400kv project substation are sited.

The final submission should include verified plans showing the relationship between the nearest property boundaries, gardens, PRoW and the National Grid Substation / 400 kV Project Substation envelope.

In the meantime the ExA has requested a plan showing an estimate of the proposed distances to the curtilage of properties whose boundaries are adjacent to the proposed POC Substation.



Chapter 4: The Scheme

4.1 Permanent versus Temporary Effects – Site 1 and the BESS

One of the central concerns is the repeated description of East Pye as a broadly temporary and reversible development, when East Pye's own documents establish an important distinction between the solar/BESS elements and the National Grid infrastructure.

ES Chapter 4 confirms that, following the approximately 60-year operational period, the solar generating infrastructure, BESS and Project Substations are intended to be decommissioned, whereas the National Grid Substation and **Grid Connection Infrastructure are to remain in situ.** Relevant mitigation planting associated with the National Grid infrastructure would also transfer to National Grid for continuing management.

That distinction matters.

An effect which ends because equipment is removed and agricultural land restored is fundamentally different from an effect created by major transmission infrastructure which remains beyond Year 60 with no equivalent decommissioning date identified.

The same issue arises at **Hundred Lane/Great Moulton RB19.** East Pye's PRoW Visual Amenity Assessment identifies a haul-route crossing which is also intended to provide permanent maintenance access. It records vegetation loss at the crossing and assesses effects on users as Major Adverse and Significant during construction and at Year 1, remaining Moderate Adverse and Significant at Year 15. Screening retained infrastructure is not the same as removing it.

BEPS therefore asks:

Can the ExA request the Applicant and NGET to confirm the anticipated operational life of the National Grid Substation and retained Grid Connection Infrastructure, and whether any decommissioning date is secured outside this DCO?

- If there is no secured end date, should the retained National Grid infrastructure and the access needed to serve it be assessed as a **permanent landscape presence**, rather than being presented within the wider narrative of a 60-year temporary Scheme?
- Has a post-Year-60 landscape assessment been provided which clearly shows what would remain once the solar panels, BESS and Project Substations have been removed?
- What landscape mitigation would transfer to NGET, for how long would it be maintained, and what mechanism would ensure that the retained infrastructure remained adequately screened?
- Finally, if the Hundred Lane/RB19 crossing is required only for infrastructure removed at Year 60, will it also be removed and the lane fully restored? If it is required for the retained National Grid infrastructure, its potentially indefinite effect should be clearly identified and assessed as such.

Relevant East Pye documents:

APP/3.1 Draft Development Consent Order; APP/6.1.4 ES Chapter 4 – The Scheme; APP/6.1.7 ES Chapter 7 – Landscape and Visual; APP/6.3.7.9 PRoW Visual Amenity Assessment; APP/6.4 ES Non-Technical Summary; APP/7.3 Outline Decommissioning Environmental Management Plan; APP/7.4 Outline Landscape and Ecology Management Plan; APP/7.8 Outline PRoW and Permissive Paths Management Plan; APP/7.18 Design Principles, Parameters and Commitments; APP/7.26 Commitments Register.

4.1.1 Whole-life replacement activity

The 60-year operational period should not be treated as one construction phase followed only by routine maintenance.

BEPS's consolidated evidence records that the Scheme permits complete panel replacement over a period of up to 24 months, up to five BESS replacement cycles, and major transformer and electrical replacement during the operational life.

For Great Moulton, those foreseeable replacement cycles may bring renewed abnormal loads, HGV movements, lifting operations, temporary compounds, noise, waste removal and construction-type disturbance. **The environmental assessment and DCO controls should therefore show how recurring whole-life replacement activity has been assessed and controlled, rather than treating the principal construction effects as a one-off event.**

4.2 Site 1B - National Grid Substation And 400kv Project Substation

Sub-Site 1B should be recognised as the principal grid hub for the western part of the Scheme. It contains the proposed National Grid Substation and 400 kV Project Substation and is functionally connected to Sites 1A–1D, the BESS, cable routes, pylon works and access infrastructure.

Our concern is that the Applicant has not yet demonstrated that the combined operational effects of this infrastructure will be acceptable for nearby residents, particularly in relation to **noise**.

Great Moulton has a very low rural background sound environment. The Applicant therefore needs to demonstrate clearly the cumulative effect of transformer hum, switchgear, BESS cooling equipment, inverters, fans and other electrical plant, including appropriate corrections for tonal or intermittent characteristics. The concern is not simply individual items of equipment, but their **combined 24-hour operational effect**, particularly at night.

The submitted material does not provide residents with a clear understanding of what this concentration of infrastructure will look and sound like once operational. There is also no single, easily understood plan or schematic showing the complete grid hub and its relationship with nearby homes.

This uncertainty is particularly important because the Scheme relies on a **Rochdale Envelope**. Where the final plant layout, technology, lighting, drainage, access or overhead-line works remain flexible, the worst-case effects must be clearly assessed and secured through the DCO so that the final development cannot create greater impacts than those examined.

We therefore ask the Examining Authority to require the Applicant to demonstrate, in one clear and auditable assessment, the combined operational noise and environmental effects of the National Grid Substation, Project Substation, BESS and associated electrical infrastructure on Great Moulton residents, together with the controls that will ensure those effects cannot increase at detailed design stage.

4.2.1 Rochdale Envelope- scenario testing

The relevant test should not be confined to whether the Applicant's preferred configuration falls within the assessed envelope. The Applicant should demonstrate that every realistically permitted implementation scenario - including solar-only operation, delayed or reduced BESS, altered National Grid connection works, different detailed substation layouts and replacement technologies - remains within the environmental effects actually assessed and secured by the DCO.

Where a permitted scenario could alter land take, access, noise, lighting, drainage, fire safety, landscape effects or compulsory acquisition requirements, the Examining Authority should be shown the assessed maximum case and the specific DCO control that prevents the detailed design from exceeding it.

4.3 Area and location

- Sub-Site 1B forms part of Site 1. Site 1 totals approximately 73.6ha;
- Sub-Site 1B is approximately 48.2ha, centred on NGR TM 17091 89199.

The ExA should require The Applicant to provide a parcel-by-parcel infrastructure schedule for Site 1A-1D and the BESS, with work number, component, maximum dimensions, footprint, temporary/permanent status, delivery body, decommissioning position and relevant control document.

MAIN OPERATIONAL USE

The operational use is not merely electricity generation; it includes transmission-interface infrastructure, monitoring, export, import for BESS charging, switching, maintenance and retained grid works.

New National Grid Substation

The new National Grid Substation is the element that makes Site 1 a long-term grid node

- The new National Grid Substation is located within Sub-Site 1B and would be owned/operated by National Grid.
- It is required at the Point of Connection to connect the 400kV Project Substation to the National Grid.
- It monitors and manages exports of electricity.

The ExA should require clarity on NGET responsibility, final connection solution, scope of works, delivery programme and what happens if the connection solution changes.

NATIONAL GRID SUBSTATION PARAMETERS

Parameters should include footprint, building heights, busbar/gantry heights, fence height, access-track width, lighting, drainage, transformer oil containment, temporary works, construction duration and operational maintenance requirements. Including the following:

- maximum compound area 6ha
- access track up to 8m wide
- relay/control rooms up to 7m x 19m and 4.2m high
- foundations may be raft or piles to 12m with 1m pile cap
- 3m palisade fencing.

400KV PROJECT SUBSTATION IN SUB-SITE 1B

The 400 kV Project Substation should be assessed cumulatively with the National Grid Substation. Residents will not experience the two as separate planning effects.

- 400kV Project Substation is proposed in Sub-Site 1B,
- with electrical infrastructure to allow electricity to be exported to the National Grid Substation
- It may include control/relay rooms
- 33kV switch room
- monitoring/maintenance equipment
- welfare/office facilities

400KV PROJECT SUBSTATION PARAMETERS

- Compound perimeter:
- 3m palisade fencing
- plus 2.5m deer-type wire mesh/wooden post fencing outside;
- access up to 6m wide;
- relay/control room
- 33kV maximum compound area 1.1ha

- maximum height 15m to top of busbars
- foundations up to 1m concrete base or piles up to 12m.

The ExA should require confirmation whether gas-insulated or air-insulated switchgear is proposed or retained as an option, and how the worst case for height, footprint, noise, visual clutter, drainage and operational risk has been assessed.

GRID CONNECTION / OVERHEAD LINE WORKS

Overhead-line works and pylon changes are integral to the grid hub. The Applicant should show all proposed tower works, temporary scaffolding, netting, pull zones, outages, construction compounds, access routes and permanent changes on one plan.

- Grid Connection Infrastructure will connect the National Grid Substation to the existing 400kV Norwich Main - Bramford overhead line.
- Chapter 4 refers to a double turn-in of both circuits into the National Grid Substation within Sub-Site 1B,
- up to four new pylons across the Scheme, up to 61m high.

SECURITY AND CAMERAS

Security infrastructure should be assessed for visual effect, lighting, privacy, ecology and rural character. CCTV locations and heights should be fixed or controlled.

- National Grid Substation
- BESS
- Project Substations
- 3m palisade fencing
- Pole-mounted, internal-facing CCTV will be installed around the perimeter of the Sites; maximum CCTV/pole height is 3m generally, but 4.2m for the National Grid Substation.

LIGHTING

Lighting should be assessed against dark skies, bats, PRoW users, nearby homes, aviation and emergency scenarios. A "temporary maintenance lighting" assumption should be secured and enforceable

- National Grid Substation lighting is to comply with National Grid standards.
- External components are not expected to require dedicated external lighting
- If maintenance lighting is needed, temporary lighting is used.
- Control-room entrance lighting should emit no upward light.
- National Grid Substation access road will not be illuminated.

DRAINAGE / ATTENUATION

Drainage design should identify clean and contaminated water systems, firewater isolation, penstock failure scenarios, testing, tankering, discharge limits and emergency exceedance routing.

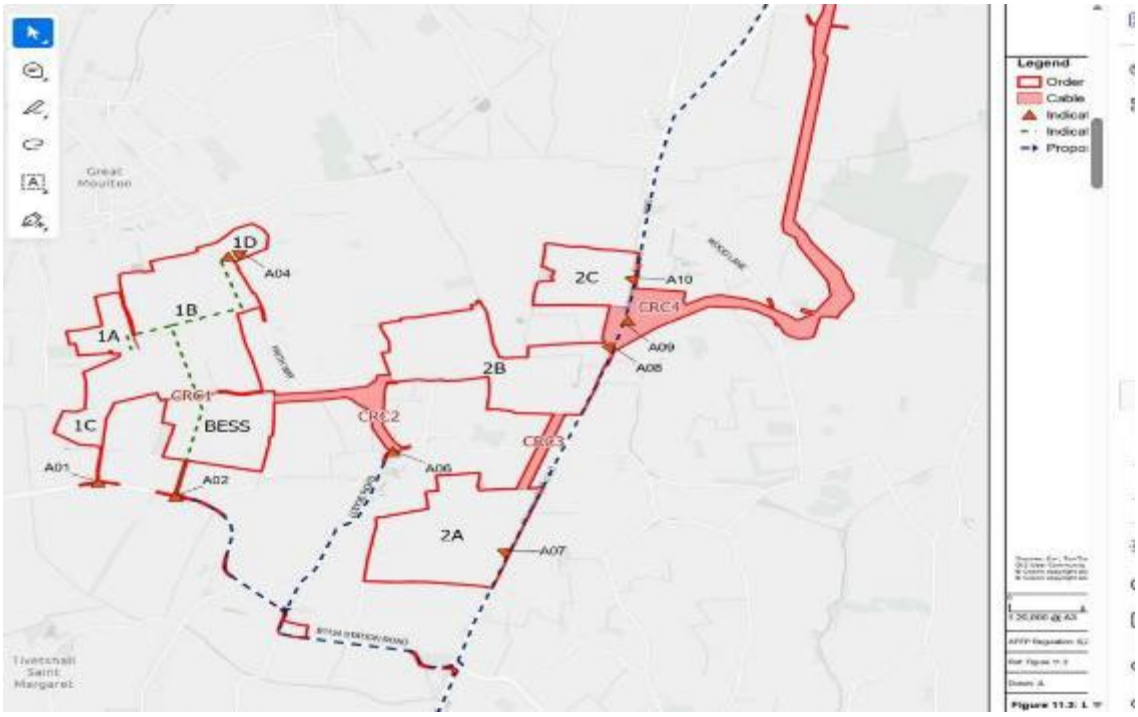
- National Grid Substation drainage is proposed to be lined with an impermeable membrane with controlled discharge.
- Indicative attenuation volume is 7,308-9,246m3, refined to 8,256m3.
- 400kV Project Substation in Sub-Site 1B has revised attenuation of 1,511m3.
- Localised surface-water flood risk around the National Grid Substation and 400kV Project Substation is acknowledged, with a detailed-design solution deferred.

TEMPORARY CONSTRUCTION COMPOUNDS

Construction compounds in Site 1 should be assessed for land take, traffic, noise, dust, lighting, welfare drainage, fuel storage, security and restoration.

- Chapter 15 states two construction compounds are proposed within Site 1B, both on Grade 2 agricultural land. It says almost all of Site 1 is Grade 2 so this is considered unavoidable by the Applicant.
- When the construction work complete, what is the proposed restoration for each of these

ACCESS / HGV ROUTE



HGV and abnormal-load routes should be shown with swept paths, structures, verge protection, traffic management, PRoW controls, railway-level-crossing interaction and emergency access arrangements.

- Sites 1A-D and BESS use accesses A01 and A02 via A140/B1134 roundabout, B1134 westbound, then northbound on A01/A02. B1134
- Station Road is described as the key link for access to the National Grid Substation, Project Substation in the BESS Site and Project Substation in Sub-Site 1B.

The Applicant should clarify why document AP095, page 2 it shows Lodge Road as a 2 way Proposed Vehicle Routeing, The map also shows A02 the access point to the BESS and the Indicative 2-way.Internal Routeing. Indicative site access on the red CRC2. A09, A10, A08, A07 as access from the A140 into 2A, 2B and 2C, Route A01 from Station Road in 1C access to the pylons, A04 crossing over Frith Way. Frith Way has no indicative traffic, but the CRC2 highlights definitive use as access. The documents state the cable routes will be used for traffic movements.

LANDSCAPE / PROW CONTEXT

The PRoW network should be assessed as a connected recreational and heritage network, not only as isolated paths.

4.4 Grid connection / pylon works

Pylon and overhead-line works should be included in all landscape, heritage, aviation, transport, EMF, ecology and construction assessments.

GRID CONNECTION / PYLON WORKS

- Chapter 3 states underground and/or overhead lines including new pylons between the National Grid Substation and Point of Connection will be located within Sub-Sites 1A-D. Appendix 9.1 states OHL works within Sub-Site 1C comprise
- modification and reconfiguration of the existing OHL, including new pylons
- dismantling of existing overhead lines and pylons

PYLONS

The maximum pylon heights and temporary works should be represented visually from Great Moulton homes and PRoW

- Up to four new pylons are assessed across the Scheme,..Three are associated with repositioning existing pylons and up to one is new.
- Pylons may be up to 61m above ground level.

SOILS / LAND ASSUMPTIONS

Unsurveyed or assumed land should be treated conservatively, but the Applicant should not use assumptions to avoid field-specific restoration obligations.

- Chapter 15 records that parts of mitigation/enhancement areas in Sub-Sites 1C and 1D were not surveyed for ALC.
- Works No.5 relates to reconfiguring and installing new overhead lines
- The non-surveyed land is assumed worst-case Grade 2.
- It also says Sub-Sites 1C and 1D are areas within which pylons may be relocated.

SECURITY / LIGHTING

Grid connection work areas should be controlled for temporary lighting, fencing, generator use and overnight security.

- No separate permanent security or lighting regime is described for Sub-Site 1C in the available text, beyond the scheme-wide position
- infrastructure work areas may be fenced during construction
- PV arrays, if present, would use deer fencing/CCTV.
- OHL/pylon works would not normally imply operational lighting.

LANDSCAPE CONTEXT

The landscape context includes the plateau, historic lanes, PRoW, village edge and intervisibility with surrounding settlements.

- Appendix 7.2 states Sub-Site 1C spans two fields
- one directly south of 1A
- one south of Hundred Lane/Great Moulton 19,west of the BESS Site.
- Hundred Lane / Great Moulton 19 crosses its centre, and Tivetshall St Margaret FP1/FP2 run north-south.

4.5 Proposed Solar Panels

The solar panels are part of the cumulative visual, hydrological and access effect even if their direct construction differs from substations.

OPTION A: SINGLE-AXIS TRACKER PANELS

If single-axis tracker panels are retained as an option, the assessment should address maximum height, movement, glint / glare, mechanical noise, maintenance and visual appearance during tilted positions.

- Solar PV array area. Chapter 5 states maximum solar PV arrays were considered at Stage 1, then reduced along the southern boundary to increase the Hundred Lane buffer, respond to PRoW views and provide landscape/ecological mitigation.
- Arrays were also reduced to accommodate hedgerows, trees, field margins and a pond in the northwest corner.
- 4.5m above ground level at greatest inclination
- 2.5m when horizontal
- 0.4m minimum clearance above ground

4.6 Site 1C&1 D

The Applicant's documents appear to identify Sub-Sites 1C and 1D principally in connection with the grid connection, including overhead-line works, potential pylon relocation, underground and/or overhead cabling, construction access and mitigation or enhancement of land. However, the precise purpose and extent of development within each parcel remains unclear.

This is significant because the National Grid Substation and 400kV Project Substation are proposed within Sub-Site 1B, while associated grid-connection works, including cables, overhead lines and potentially new or relocated pylons between the substations and the Point of Connection, may extend across Sub-Sites 1A–1D. **Sub-Sites 1C and 1D must therefore be assessed as integral parts of the same grid-infrastructure package, rather than as minor or residual land.**

The Applicant should clearly identify, for each of Sub-Sites 1C and 1D:

- the exact works proposed and their maximum extent;
- whether pylons, overhead lines, underground cables, access routes or construction compounds would be located within the parcel;
- which works and land-use changes would be temporary and which would remain permanently or be subject to retained rights;
- the construction period, access arrangements and likely disturbance;
- why each parcel is necessary and what reasonable alternatives were considered; and

- the residual and cumulative effects when considered alongside Sub-Site 1B, the National Grid Substation, the 400kV Project Substation, the BESS and associated connection infrastructure.

Without that information, the effects on landscape and visual amenity, residential outlook, PRoW, agricultural land, drainage and private water supplies, ecology, construction traffic, lighting and cumulative infrastructure cannot be properly understood or tested.

Great Moulton residents therefore submit that the present information for Sub-Sites 1C and 1D is insufficiently clear and parcel-specific. If these parcels are required for pylon relocation, overhead-line reconfiguration, cabling, access, construction works, mitigation or retained grid rights, those works and their consequences must be expressly identified, assessed and justified.

Before reliance is placed on the Applicant's conclusions, the Examining Authority should require a clear parcel-by-parcel explanation of **what is proposed in 1C and 1D, why the land is required, how long each use will last, what alternatives were considered, and how the individual and cumulative environmental effects have been assessed and secured.**

4.7 Noise Intrusion into rural Rural Character, Cumulative Effects and Assessment Uncertainty

Great Moulton and Tivetshall residents have employed their own Consultant - his comments are included under each relevant chapter. BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf - Oakridge Environmental Services) - (see full report following & Appended to this document

Great Moulton is a quiet rural environment, not an existing industrial soundscape. The significance of operational noise therefore cannot be judged simply by whether a predicted figure falls below a general numerical limit. The important questions are how noticeable the new sound would be, its character, how long it would occur, and the extent to which it would change the existing rural acoustic environment, particularly during evening, night-time and early-morning periods.

The Applicant has undertaken a substantial baseline survey, these were unattended acknowledges that it was not possible to identify the dominant sound sources throughout the monitoring periods. At the Great Moulton monitoring locations, (these have never been identified), so the road traffic may in fact refer to the B1134, which is not in the vicinity of Great Moulton, the road traffic was identified during attended observations, but the technical review questions whether traffic provides a reliable and continuous masking effect at the nearest homes, particularly during quiet night-time periods. **East Pye also identifies the relevant Great Moulton residential receptors as high-sensitivity receptors.**

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 5 2.1 Baseline Sound Survey The Environmental Statement on noise and vibration prepared by Stantec provides a baseline noise survey taking data from 51 noise monitoring positions that effectively ...(see full report following & Appended to this document

Page 6 The submitted ES Chapter 12 identifies MP41, MP42 and MP43 as the associated measurement positions for residential receptors in and around Great Moulton, including dwellings on Broadgate Lane and Station Road. The ES also identifies these (see full report following & Appended to this document

This is important because the proposed development would introduce a substantial new cluster of electrical infrastructure into that rural setting, including the **BESS, National Grid Substation, Project Substation, transformers, inverters and associated electrical plant**. These are operational effects capable of occurring over the lifetime of the development, including during the quietest periods of the night.

We would ask the ExA to be aware of Great Moulton's concern that the omission by the Applicant not to identify that the POC substation has no decommissioning date, so the proposed temporary changes to the environment are NOT temporary.

The concern is increased because the operational noise assessment is **not based on final plant specifications or a final equipment layout**. East Pye states that detailed plant specifications are not yet available and that potential noise emissions have therefore been assessed using **example equipment data and an example plant layout**. The final number, type, location and operating regime of BESS containers, transformers, inverters and cooling equipment may materially affect both the overall noise level and its acoustic character.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 8 2.2 Noise modelling and calculations 2.2.1 Assessment Assumptions and Limitations The authors have stated that "Detailed plant specifications are not available at this stage and potential noise emissions baked on example equipment data have been assessed using an example plant layout which has been based on an indicative plant layout) (see full report following & Appended to this document

There is also significant reliance on mitigation. The assessment includes a **4-metre-high acoustic barrier around parts of the BESS**, while reduced fan duty is assumed as part of the BESS noise mitigation. The technical review identifies uncertainty over matters including the number of BESS units represented in the model, barrier location and performance, source heights, frequency response, plant layout and the effectiveness of the mitigation over the lifetime of the development.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 9 This introduces a level of uncertainty that is difficult to evaluate. The authors have prudently used a conservative approach assuming the plant operates simultaneously, continuously, and at maximum output. However, there is no indication as to the number of battery storage units (see full report following & Appended to this document

Particular concern arises from **tonal and low-frequency noise**. Electrical infrastructure does not necessarily produce sound that is adequately described by a single broadband A-weighted figure. The review identifies insufficient disclosed frequency data to independently verify the modelling of low-frequency sound from the BESS, inverters and substations, or the effectiveness of barriers at those frequencies. Such components may be more noticeable during quiet night-time conditions.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 9 The sound source data have only been given in broadband A-weighted sound power levels and thus, if the noise model has been calculated in accordance with ISO 9613-2, has used the 500 Hz octave-band frequency to estimate ...

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 10 ... frequency propagation, barrier performance at low frequencies or the potential prominence of transformer hum and cooling plant noise at night. This is particularly relevant as the development includes both BESS infrastructure, ...(see full report following & Appended to this document

East Pye itself recognises that high-voltage transformers can generate a **100 Hz hum**, but concludes that this would be masked by broadband noise from the BESS inverters and containers. The technical review questions whether that assumption has been sufficiently demonstrated. If a BESS cooling plant operates at reduced duty during the night, or plant loading and operating conditions change, the relative prominence of transformer noise may also change. Without the underlying one-third-octave data, the absence of an appropriate BS 4142 acoustic-feature correction cannot presently be independently verified.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 11 2.2.3 BS 4142 Acoustic Feature Rating Corrections The authors have concluded that neither the BESS nor the National Grid Substation produce any tonal sound, despite stating:.... ".(see full report following & Appended to this document)

This is therefore **not an argument that unacceptable noise has already been conclusively demonstrated**. The concern is that the Applicant has not yet provided sufficient certainty to rule it out. The review identifies continuing uncertainty over final plant specification, source spectra,

modelling assumptions, mitigation performance and whether the measured residual sound environment is representative of the most affected homes.

The issue must also be considered **cumulatively**. Residents around Site 1 and the adjoining BESS would not experience the National Grid Substation, Project Substation, BESS, inverters and other electrical plants as separate planning exercises. They would experience the combined acoustic effect of an infrastructure cluster operating within the same rural environment. Any assessment and noise limits must therefore control the **combined operational effect**, rather than allowing individual items of plant to be considered in isolation.

For Site 2 and other solar parcels containing operational electrical equipment, the same principle applies: the assessment must demonstrate that inverter, transformer or other plant noise remains acceptable at the relevant receptors. However, the attached technical review is principally directed to the BESS and National Grid infrastructure around Great Moulton and should not be presented as a parcel-specific assessment of Site 2.

What should be required

Before reliance is placed on the Applicant's conclusion of no significant operational noise effects, East Pye should be required to demonstrate, on a secured worst-case basis:

- the final or maximum plant numbers, specifications, locations and operating conditions;
- cumulative operational noise from the BESS, National Grid Substation, Project Substation, transformers, inverters and associated plant;
- representative night-time background conditions at the most affected homes;
- appropriate assessment of **tonality, low-frequency sound and other distinctive acoustic characteristics**;
- the specification and effectiveness of acoustic barriers, enclosures and other mitigation;
- enforceable cumulative noise limits applying to the completed development; and
- post-installation verification, together with a clear requirement for corrective mitigation if operational noise proves more intrusive than predicted.

The central concern is that a long-term industrial acoustic character should not be introduced into a quiet rural environment on the basis of example equipment, indicative layouts, assumed masking and mitigation that has not yet been finally specified and demonstrated.

The Applicant must therefore establish not merely that predicted broadband noise can meet numerical criteria, but that the **final development, operating cumulatively and during the quietest periods, will avoid significant adverse effects and minimise other adverse effects on residential amenity and quality of life.** The technical review concludes that the present information does not yet provide sufficient certainty to make that judgment.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf Page 14

However, it is not possible to validate this assessment due to the degree of uncertainty in the submitted assessment. This is due to: • The lack of detail in plant selection, both for the BESS and National Grid ...(see full report following & APPENDIX 2)

4.7.1 Noise Impact Assessment Review

Undertaken by Oakridge Environmental Services on behalf of the village of Great Moulton

APPENDIX 2 Based on the Review undertaken by Oakridge Environmental Services

4.7.2 Noise Impact Assessment Review

Article, regarding the issue of Noise associated with large NSIP developments. Daniel Clare is managing director at RSK Acoustics – 2 April 2025

APPENDIX 3

4.8 Information Required from East Pye Regarding Deferred Design, Noise and Access Details

Due to the complexity of the scheme, and the extent to which East Pye relies on maximum design parameters, outline assumptions and later detailed design, with detailed access layouts deferred, concerned residents ask the ExA to ensure that East Pye provide the following information:

1. Provide a full operational noise assessment for Site 1, Site 2B, the BESS, the National Grid Substation and the 400kV Project Substations, based on the final or current assumed equipment layout, equipment specifications, transformer locations, inverter and cooling plant locations, BESS container positions, acoustic enclosures, tonal characteristics, low-frequency noise, night-time operation and cumulative plant noise. This should explain how operational noise would affect an extremely quiet rural soundscape where background sound levels may fall below 25 dB, and should include clear, enforceable limits, post-installation monitoring and corrective-action requirements if noise proves audible, tonal or intrusive at residential receptors, gardens, public rights of way or other quiet rural receptors.
2. Provide a single parcel-by-parcel infrastructure schedule for Sub-Sites 1A, 1B, 1C, 1D and the BESS Site, identifying every permanent and temporary component by Work Number, maximum dimensions, likely location and whether it is temporary or permanent.
3. Confirm whether any solar PV arrays are proposed in Sub-Sites 1C and/or 1D, or whether those parcels are limited to overhead line, pylon, cabling, mitigation, access or ancillary works.

4. Provide the final or current assumed number and location of CCTV cameras for Site 1A–1D, the Project Substations and the National Grid Substation, including pole heights and whether infrared lighting is proposed.
5. Provide a lighting plan showing operational lighting columns, emergency lighting, motion-sensor zones, switching arrangements and bat/ecology buffers for the BESS, National Grid Substation and 400kV Project Substations.
6. Provide a combined plan showing the National Grid Substation, 400kV Project Substations in Sub-Site 1B, pylon works, cable trenches, drainage infrastructure, access roads, palisade fencing and deer fencing.
7. Provide a construction-phase plan for Site 1A–1D showing construction compounds, laydown areas, temporary fencing, haul routes, welfare/office areas, lighting locations, vegetation removals and visibility-splay works.
8. Provide a clear drainage and firewater-containment note explaining how firewater from Site 1A–1D, the BESS, the National Grid Substation and the 400kV Project Substations would be contained, tested and removed, and how failures of penstock, shut-off or containment systems would be prevented.
9. Demonstrate how these infrastructure elements have been assessed together for residential amenity, public rights of way, landscape, dark skies, tranquillity, ecology, traffic, drainage, agricultural land and cumulative effects, rather than considered only as separate topic elements.

Visual Image to try and show proximity of site 1B to Great Moulton, site boundaries of peoples homes (c.25m) & PRoW



Chapter 5: Reasonable Alternatives and Design Evolution

5.1 National Policy on Site Selection and the Point of Connection

The 2025 EN-1, EN-3 and EN-5 policy suite came into force on 6 January 2026. EN-5 recognises the urgent need for electricity network infrastructure, but still requires The Applicant to justify the siting, design and mitigation of associated infrastructure such as substations.

National Policy EN-5 2.2.5-2.2.9 states The identification of a grid connection does not remove the Applicant's responsibility to justify the particular land selected for the associated electricity infrastructure.

The Applicant should transparently compare each reasonable alternative against topography, existing screening, community, environmental constraints, land use, BMV land quality, access, safety and alternatives.

The 400kV transmission network constrained the general area in which East Pye could connect, but it did not dictate that the National Grid Substation had to be located specifically within Sub-Site 1B. East Pye considered more than one possible substation location before selecting Option 4B (subsite 1B).

The selection of Sub-Site 1B was therefore a separate decision which the Applicant must justify on the grounds within the National Policy. The policy question is not merely whether the effects of Site 1B can be mitigated, but whether another site could have avoided or reduced them.

EN-5 recognises that the initiating and terminating points of network infrastructure may be constrained, but paragraphs 2.2.5–2.2.9 also make clear that applicants retain control over routing and site selection within the development zone, are not exempt from balancing site-selection considerations, and should carefully consider the location and design of substations, including local topography and opportunities for screening. The question is therefore not whether a grid connection constrained the broad search area, but how the Applicant selected the particular land within that area."

In ExQ1 Q1.3.1 the ExA asks why the Scheme remains a reasonably practicable and robust solution following the transition to the Great Moulton point of connection and what evidence shows that a fresh site-selection exercise centred on Great Moulton would not have produced a materially different scheme. Q1.3.2 separately asks the Applicant to explain the relative influence of environmental assessment, engineering requirements, grid connection considerations, landowner willingness and land availability. Chapter 5 addresses those two questions."

The Applicant should therefore show how the topographical and screening of Options 1, 2, 3, 4A & 4B were compared before selecting Option 4B (subsite 1B) was selected.

East Pye EIA scoping describes Site 1 topography as predominantly level,

We would submit this is not an accurate description as described by Broadland District Council, South Norfolk - South Norfolk landscape character assessments describes it as follows:

E2: GREAT MOULTON PLATEAU FARMLAND DESCRIPTION 17.1. Location and Boundaries:

The Great Moulton Plateau Farmland character area comprises an area of elevated plateau above the 50m contour in the southern part of South Norfolk District. To the north, south and west lower lying Tributary Farmland slopes away from the plateau towards the rivers of the Tas and Waveney. Its western edge is formed by the boundary of South Norfolk District, although the plateau character extends into Breckland District.

E2: GREAT MOULTON PLATEAU FARMLAND DESCRIPTION 17.1. Location and Boundaries: The Great Moulton Plateau Farmland character area comprises an area of elevated plateau above the 50m contour in the southern part of South Norfolk District. To the north, south and west lower lying Tributary Farmland slopes away from the plateau towards the rivers of the Tas and Waveney. Its western edge is formed by the boundary of South Norfolk District, although the plateau character extends into Breckland District.

The simplicity of the Plateau Farmland landform is a reflection of the uniformity of the underlying geology comprising a thick layer of chalky glacial till (Lowestoft Till). Landform, Topography. The flatness of the plateau landform and lack of enclosure affords a strong sense of openness with expansive skies and distant views, both internally within the plateau and across the adjacent landscapes from the plateau edge. Land Cover and Biodiversity This is a simple and uniform landscape, dominated by arable farmland with largescale, regular, geometric fields. There has

been wide-scale removal of boundary vegetation to accommodate modern farm machinery and the scarcity of hedgerows accentuates the scale and openness of the plateau. Where hedgerows do occur as field boundaries they tend to be fragmented https://www.southnorfolkandbroadland.gov.uk/planning/future-development/supplementary-planning-documents/south-norfolk-landscape-character-assessments

Did East Pye demonstrate why Site 1B was the appropriate location for the grid infrastructure after environmental, community, agricultural, access and technical considerations were compared with reasonable alternatives?

5.2 National Grid Substation Alternatives - Options 1,2,3,4A &4B

The chronology matters because the Scheme was not selected in its present form at one point in time. The Applicant's Site Selection Assessment records that the earlier solar-site search was undertaken while Norwich Main was being considered and that Sites 1 and 2 were subsequently added after the Point of Connection was identified south of Great Moulton. The National Grid Substation search also evolved: the initial alternatives were followed by a Great Moulton option south of the village and a further alternative within Sub-Site 1B. By EIA Scoping both Great Moulton locations were still under consideration.

The Examination therefore needs to be able to follow not only the final reasons given for Site 1B, but the evidence available when each successive decision was made.

APP/7.20 states that Options 4A and 4B were subjected to the **"same RAG rating"** using the identified site-selection criteria. However, BEPS has been unable to identify sufficient evidence to establish whether the later options were subjected, at the relevant decision-making stage, to the **same depth of option-specific scrutiny and supporting technical investigation** as Options 1–3.

For example, APP/7.20 expressly refers to swept-path analysis in the consideration of Options 1 and 3 and provides detailed reasoning concerning highway constraints. The assessment of Option 4 and subsequently Options 4A/4B is described principally as a desk-based review. It is therefore unclear whether equivalent highway, abnormal-load, landscape, heritage, flood-risk, ecology, PRoW and other technical work had been undertaken for 4A/4B at the point at which those options were compared and the preferred location selected.

BEPS therefore respectfully requests that the Applicant be asked to provide the **contemporaneous audit trail** for the National Grid Substation site-selection exercise, including:

- The date on which each of Options 1, 2, 3, 4A and 4B was first identified, assessed, refined and rejected or selected; the option-appraisal matrices, RAG worksheets and decision records which existed at those respective dates; the technical studies and

specialist advice relied upon for each option; clarification of whether the assessment now presented in Tables 3.1 and 3.2 of APP/7.20 was prepared contemporaneously with the decisions or subsequently consolidated for the DCO application; and an explanation of how comparability between the earlier and later options was maintained where the evidence available at the respective assessment stages differed.

- BEPS also asks the Applicant to identify any option-specific swept-path or abnormal-indivisible-load assessment undertaken for Options 4A and 4B, or, if none was undertaken before the preferred location was selected, to explain why that level of highway assessment was considered necessary for some of the earlier options but not for the later alternatives.
- It would additionally assist if the Applicant provided a **single side-by-side comparison of Options 1, 2, 3, 4A and 4B against a common set of criteria**, identifying the evidence available at the date each decision was made rather than relying solely upon the later summary contained in APP/7.20.
- Finally, BEPS asks for confirmation of the relationship between Options 4A/4B in APP/7.20 and the locations subsequently described during consultation as the National Grid Substation "Option 1" and "Option 2", so that the complete site-selection chronology can be followed without ambiguity.

BEPS is not asserting that the later options were necessarily inadequately assessed. The concern is that the submitted evidence does not presently allow Interested Parties, or potentially the Examining Authority, to verify whether the alternatives considered at different stages were subjected to a **consistent and reasonably comparable level of scrutiny before the preferred Great Moulton location was selected**.

The submitted material shows a process driven heavily by grid availability, proximity to the Bramford to Norwich 400kV overhead line, access, landowner willingness, commercial deliverability and the need to accommodate a very large 500MW export/import scheme. This may explain why East Pye prefers the chosen land. East Pye have not proven that the Great Moulton and Tivetshall locations are environmentally, socially or agriculturally acceptable, or that less harmful alternatives were properly examined.

APP/7.20 and APP/6.3.2.1 establish the change from the earlier Norwich Main strategy to Great Moulton, the addition of Sites 1 and 2, and the existence of alternative National Grid Substation locations at scoping.

Reconstructed comparison: Compiled by BEPS - Great Moulton Options 1–3 against Site 4A or 4B??

We would submit that Option 4A or (B), would have varying results based on which site was evaluated

	Applicants Recorded Position			**Applicants Recorded Position**	**Applicants Recorded Position**	**Outstanding BEPS Question/Source**
Issue	**Option 1 – Newton Flotman**	**Option 2 – Tharston/Tasburgh**	**Option 3 – Long Stratton**	**Option 4A (formerly option 4)**	**Option 4B**	
Date First Evidenced/Assessment Stage	Oct/Nov 2024	Oct/Nov 2024	Oct/Nov 2024	Late 2024/ before 15 Jan 2025	?	Date for Option 4B
Proximity to 400kV line	Suitable; identified because near Bramford–Norwich line	Suitable; near line	Suitable; near line	Where is evidence demonstrating the same appraisal methodology? Very favourable : beneath/adjacent to Bramford–Norwich line	Where is evidence demonstrating the same appraisal methodology? Very favourable : beneath/adjacent to Bramford–Norwich line	Willing Land Owner identified

	Applicants Recorded Position			Applicants Recorded Position	Applicants Recorded Position	Outstanding BEPS Question/Source
Road access	A140/Flordon Road; narrow through Newton Flotman, parking, overhead wires, HGV pinch points	A140/Bungay Road/Long Lane; narrow country lanes; difficult for articulated HGVs	A140/Swan Lane; feasible but speed bumps, tight bends and settlement route	Where is evidence demonstrating the same appraisal methodology?		No Road Access Evaluations for 4A or 4B
Residential receptors	Homes along Flordon Road; new dwellings ~400m north	Closest dwelling ~150m east; others ~325m north	Hunts Mead immediately west; route through Long Stratton	Where is evidence demonstrating the same appraisal methodology?	Where is evidence demonstrating the same appraisal methodology? Great Moulton ~120m East;	
Heritage	Strong constraint: Rainthorpe Hall Grade II RPG, Grade I Rainthorpe Hall, Grade II Hall Farmhouse	Listed buildings around The Street	Beresford Grade II ~100m west; Forncett Conservation Area ~980m	Where is evidence demonstrating the same appraisal methodology? Where is evidence demonstrating the same appraisal methodology?		Moulton Farmhouse Grade II ~85m south of Sub-Site 1B, Wacton Hall Grade II* ~980m NE
Ecology / designated sites	No statutory ecology in site; nearest SSSI/SAC ~1.3km	No statutory ecology in site; nearest ~1.4km	No statutory ecology in site; nearest SSSI ~875m	Where is evidence demonstrating the same appraisal methodology? No statutory ecology in site; nearest SSSI ~2.4km	Where is evidence demonstrating the same appraisal methodology?	

	Applicants Recorded Position			Applicants Recorded Position	Applicants Recorded Position	Outstanding BEPS Question/Source
Landscape screening	Sparse hedges/trees; some woodland	Hedgerows/tree screening including Long Lane	Strong hedgerow on western boundary, woodland strip south	Where is evidence demonstrating the same appraisal methodology?		BEPS-Great Moulton - disputes this assertion.
Flood risk	Outside FZ2/3	Outside FZ2/3	Outside FZ2/3	Where is evidence demonstrating the same appraisal methodology? Flood Zone 1 -	Where is evidence demonstrating the same appraisal methodology?	?
PRoW	Not a major stated reason for dismissal	Not principal reason	Not principal reason	Where is evidence demonstrating the same appraisal methodology? PRoW crosses, but East Pye says it avoids the substation footprint	Where is evidence demonstrating the same appraisal methodology?	2 PRoW - running along two boundaries of proposed site
Agricultural land	Provisional Grade 3	Provisional Grade 3	Provisional Grade 3	Where is evidence demonstrating the same appraisal methodology? Provisional Grade 3 at selection stage;	Where is evidence demonstrating the same appraisal methodology?	identified Grade 2 BMV

	Applicants Recorded Position			Applicants Recorded Position	Applicants Recorded Position	Outstanding BEPS Question/Source
Main reason dismissed	Access + residential routing + heritage	Highway constraints + third-party land	Residential/sensitive receptors + route through settlement	Where is evidence demonstrating the same appraisal methodology? **SELECTED** **APP/7.20 §6.1.3 says: "The Applicant identified suitable land, with willing landowners + discussions with NGET**	Where is evidence demonstrating the same appraisal methodology?	

Conclusion

BEPS does not suggest that no assessment was undertaken. Our concern is that **East Pye has not provided a clear and transparent like-for-like comparison of National Grid Substation Options 1, 2, 3, 4A and 4B from which the Examination can readily understand why Site 1B ultimately emerged as the preferred location.**

The wider alternatives assessment itself indicates that Site 1B was not the only technically feasible location. For example, the Applicant records that parts of Siting Zone 3 **"could represent a feasible area to construct a National Grid Substation"**, but that those areas were not progressed because a location closer to the solar sites was preferred. Likewise, factors such as shortening connections or diversions may reduce construction impacts and capital costs. These are legitimate considerations, but they are not the same as demonstrating that Site 1B was environmentally preferable when all effects are considered together.

The evidence therefore suggests that the selection of Site 1B reflected a combination of considerations, including **proximity to the existing 400kV line, access, proximity to the Applicant's solar sites, engineering and connection efficiency, competing development constraints and land availability**. The issue for BEPS is whether those considerations were applied consistently across all of the Land Parcels

5.3 Design Evolution - Site 1 B

Norwich Main chronology, NGET capacity advice, the requirement for a new substation, the Bramford to Norwich 400kV overhead line and the 500MW export/import connection offer.

Norwich Main was discounted on NGET capacity advice and East Pye was advised to look for a new site on the Bramford/Norwich Line. Three options were originally reviewed during October/November 2024 , Option 1 – Newton Flotman, Option 2 – Tharston/Tasburgh, Option 3 – Long Stratton. In Late 2024 but prior to 15 January 2025 Option 4A (formerly option 4) - Great Moulton was included. In January 2025 a further option was added, namely Option 4B - Great Moulton APP/7.20 paragraphs 3.2.3-3.2.9:

The January 2025 Scoping material treats Site 1 as one of the locations for solar PV arrays, separately identifying the BESS and National Grid Substation. Current ES/LVIA material records solar arrays, National Grid Substation, 400kV Project Substation and grid connection works within/around Site 1

APP/7.20 records Sites 1 and 2 being added under the **Applicant's assessment of suitable solar development sites**. The Applicants documents show an evolution from Site 1 being introduced as solar-generating land to Site 1B subsequently becoming the principal location of a substantial electrical infrastructure

East Pye's documentation shows the commercial and technical pathway by which it arrived at the present scheme.

The ExA must establish whether land availability narrowed the pool before environmental comparisons were sufficiently complete

Source note: APP/7.20 sections 4.6 and 4.7, and the solar site assessment material, show that land availability and willingness to participate were material to the filtering of potential development areas and alternative development zones.

5.4 Parcel-specific justification for Sub-Sites 1A–1D

The Applicant's documents clearly identify Site 1 as comprising four separate sub-sites, 1A, 1B, 1C and 1D [APP/6.1.3; APP/6.3.7.2]. They are therefore not unexplained parcels of land, and each has an identified function within the Scheme.

Sub-Site 1A accommodates solar PV arrays and associated infrastructure. Sub-Site 1B accommodates solar PV arrays together with the principal grid infrastructure, including the National Grid Substation and 400kV Project Substation. Sub-Sites 1C and 1D have a particular role in accommodating the Grid Connection Infrastructure and Overhead Line Works associated with connecting the Scheme to the existing 400kV network. APP/6.3.7.4 expressly explains that 1C and 1D are included to represent the Overhead Line Works, while APP/6.3.7.7 identifies Grid

Connection Infrastructure within Sub-Site 1C and assesses views in which the BESS, Site 1B and National Grid Substation would be experienced together.

There is also evidence of design evolution and mitigation within Site 1. For example, the Applicant identifies changes affecting Sub-Site 1A arising from access, PRoW, landscape and planting considerations, and the visual assessment records solar arrays within 1A and 1B together with associated mitigation. The National Grid Substation within 1B was also reorientated and its relationship with the Project Substation changed during design development.

The issue for BEPS is therefore not whether Sites 1A–1D have a stated purpose, but whether the Applicant has provided a sufficiently clear parcel-specific justification for why each was originally selected and subsequently retained. Design evolution demonstrates how impacts have been mitigated after the land entered the Scheme, but it does not necessarily explain why that particular parcel was preferable to reasonable alternatives.

For each of Sites 1A–1D, the Examination should therefore be able to identify clearly: its purpose within the Scheme, the reasonable alternatives considered, the reasons for its selection and retention, the design changes subsequently made, and the residual environmental and community effects. This would enable the ExA to have confidence that the overall selection and continued use of Site 1 has been robustly justified.

Source note: The reviewed APP/6.1.5 / APP/7.20 material provides more detail for 1B and some design-evolution material for 1A, but much less parcel-specific explanation for 1C and no clear equivalent design-evolution entry for 1D in the material reviewed.

5.5 The BESS- Site Selection &Risk Specific Alternatives

APP/7.20 states that the BESS Site was selected principally because of its proximity to the Point of Connection and access from Station Road, with landscape, visual, heritage and noise effects also considered. It also identifies operational advantages from locating the BESS close to the National Grid Substation. Those are relevant considerations.

East Pye also identifies distances to residential property, a listed building and PRoW, a site may be convenient for electrical efficiency and still be inappropriate when judged against residential proximity, fire safety, rural road capacity, private water supplies, emergency response and cumulative infrastructure impacts.

The alternatives question is nevertheless wider. A BESS brings a different risk and operational profile from solar arrays. A site may be convenient for electrical efficiency and still be inappropriate the site-selection record should therefore show how residential separation, emergency access, fire and thermal-event response, firefighting and contaminated runoff, groundwater and private water supplies, noise, lighting, landscape, ecology and cumulative interaction with the substations were considered when the BESS location was selected and

retained. The remaining question is whether the BESS's distinct safety, drainage, emergency-access, noise, lighting and residential considerations were given sufficient weight when the location was selected and retained, rather than being addressed principally through later mitigation

BEPS is not suggesting that the BESS must be remote from the Point of Connection. The request is for a transparent record showing how network efficiency was balanced against the site-specific environmental and safety consequences of concentrating the BESS next to the principal grid hub.

5.6 Design Evolution – Mitigation After Selection versus Avoidance Through Selection

The Applicant's site-selection material refers to willing landowners, voluntary agreements and the availability of land as relevant considerations. BEPS does not object in principle to those factors forming part of a site-selection exercise. The question is whether they were balanced alongside a sufficiently broad and comparative consideration of the environmental, planning and technical effects of the reasonable alternatives.

This distinction is important when considering subsequent design evolution. Mitigation can reduce an effect after a location has been selected, but successful mitigation does not, by itself, demonstrate why that location was preferable to another reasonable location where the effect might have been avoided or reduced at the outset.

Site 1 and Sub-Site 1B contain a substantial concentration of infrastructure and are subject to a number of identified constraints, including landscape and visual effects, nearby residential receptors, public rights of way, rural highway access, ecological and heritage considerations, Grade 2 Best and Most Versatile agricultural land, water-environment considerations and interaction with the BESS and associated grid infrastructure. The Applicant's documents show that the design has evolved in response to constraints, including changes to infrastructure locations, setbacks, access arrangements and environmental mitigation. Those changes are relevant and should be recognised. However, they also raise a separate site-selection question: **were the constraints that required those changes sufficiently considered when the reasonable alternatives were compared and when the Site 1/Site 1B configuration was subsequently retained?**

The relevant distinction is therefore between **mitigating effects within the selected site** and **avoiding or reducing effects through the choice of site itself**. The Applicant should demonstrate not merely that individual effects can be mitigated, but that the environmental

consequences identified through design evolution were taken into account when deciding whether the selected location remained justified when compared with reasonable alternatives.

Detailed consideration of the individual effects is addressed in the relevant BEPS topic chapters. The Chapter 5 issue is whether those identified constraints and effects are fed back into the alternatives and site-selection process.

"Mitigation can reduce an effect after a location has been selected, but successful mitigation does not, by itself, demonstrate why that location was preferable to another reasonable location where the effect might have been avoided or reduced at the outset." Do these changes demonstrate successful design evolution, or do they also show that significant constraints existed in the selected land which should have been considered when alternatives were compared?

5.7 Later BMV Evidence and Reconsideration of Site Selection

The discovery of higher-quality land than assumed at early stages should trigger a clear explanation of whether and how the alternatives appraisal was revisited. If not revisited, the Applicant should justify that position.

The Applicants documents show that early provisional ALC mapping suggested mostly undifferentiated Grade 3 land, but the later detailed ALC survey found the land quality was generally higher than expected, including substantial Grade 2 and Grade 3a Best and Most Versatile land. A subsequent detailed ALC survey confirmed much of the land was BMV.

This is especially important for Site 1. East Pye states that all of Site 1 north of Hundred Lane is Grade 2 land. It also accepts that the National Grid Substation would be located on Grade 2 land, that project substation infrastructure would be on Grade 2 land, and that the BESS would also be located on Grade 2 land. The National Grid Substation would cause permanent loss of Grade 2 land, and East Pye accepts that if deep piling is required for the BESS, restoration to comparable ALC grade is unlikely to be achievable.

That is not a minor issue. BMV Grade 2 land forms part of the nationally important Best and Most Versatile resource. The later ALC evidence raises a clear question as to weather and how the earlier selection was reconsidered. The current case appears to be that Grade 2 land cannot be avoided because of the chosen grid connection location. That is circular reasoning. East Pye relies on the chosen location to justify the harm, rather than proving that the chosen location remains justified despite the harm.

5.8 Private Water Supplies

East Pye has undertaken assessment of private water supplies and existing lawful water users in the Ground Conditions Assessment and Water Resources Assessment. The Chapter 5 issue is therefore not the absence of any PWS assessment. It is whether the receptor-specific information obtained through those later assessments was capable of affecting the selection or retention of Site 1/BESS and, if so, whether that feedback into the alternatives/design-evolution process is documented. The detailed source–pathway–receptor and mitigation issues are addressed in the Water Environment and Human Health chapters."

The Examining Authority should require East Pye to identify precisely what is proposed, how it interacts with private water supplies, and why this land is necessary. Without that information, the assessment remains incomplete.

Source note: APP/7.20 Site Selection Assessment; APP/7.5 Outline Battery Safety Management Plan; APP/6.1.18 Other Environmental Topics; relevant water, noise and transport assessments

5.9 Cumulative Site 1/BESS Infrastructure Cluster

When choosing between reasonable locations, the Applicant should consider the consequences of concentrating the principal infrastructure elements within the same Site 1/BESS cluster.

East Pye has undertaken topic-specific and cumulative assessments which identify a range of effects arising from the BESS, National Grid Substation, Project Substations, overhead-line works, cabling, access, lighting and associated infrastructure. The relevant question for site selection is whether the significance of those combined effects was taken into account when the Site 1/BESS location was selected and subsequently retained.

The issue is therefore not simply whether the effects of each individual component can be mitigated. It is whether, having regard to the combined environmental and community effects identified through the Applicant's own assessments, the continued concentration of this infrastructure in this location was reconsidered and remains justified.

These effects are considered in more detail in the relevant BEPS topic chapters, including landscape and visual effects, noise, water environment, transport and access, human health and residential amenity.

5.10 National Grid Infrastructure and Delivery Uncertainty

The relationship between the promoted National Grid Substation and NGET's final connection solution is now expressly before the Examination. ExQ1 Q1.2.15 asks NGET to clarify why its relevant representation states that the new connection agreement will not require the Applicant to secure land or consent for the National Grid Substation, whether significant additional NGET

infrastructure may be required, whether the substation might need to be located differently, and the expected delivery timescale. APP/7.11 also records different Connections Reform positions for the two components of the Scheme: the solar component has Gate 2 Phase 2 prioritisation, while the BESS has Gate 1 prioritisation and no confirmed indicative connection date. These matters do not of themselves determine the acceptability of Site 1B, but they are relevant to whether the land, infrastructure envelope and environmental assessment now promoted remain appropriately justified."

Source note: NGET Relevant Representation/grid-connection material; Planning Act 2008, s.122.

5.11 Conclusion

BEPS does not contend that East Pye failed to undertake a site-selection exercise. The Applicant has provided the Site Selection Assessment [APP/7.20], the Environmental Statement chapter addressing reasonable alternatives and design evolution [APP/6.1.5], the Design Approach Document [APP/7.17] and associated environmental assessments and plans.

The issue is whether that evidence provides a clear and auditable explanation of why the Site 1/BESS configuration now before the Examination remains justified as a whole.

APP/7.20 records that the original solar land was identified while a connection at Norwich Main was being considered and that Sites 1 and 2 were subsequently added after the Point of Connection moved south of Great Moulton. It also records that the solar-site search focused upon larger landholdings identified through land agents and landowners willing to make land available.

The Applicant subsequently compared Options 4A and 4B for the National Grid Substation and selected Option 4B within Sub-Site 1B, The BESS was also located principally by reference to proximity to the Point of Connection and access from Station Road, alongside environmental considerations.

Those explanations are relevant, but the Examination should be able to understand how the individual decisions came together to produce the wider Site 1/BESS infrastructure cluster and whether later environmental, technical and grid information caused the Applicant to reconsider its earlier conclusions.

In particular, the outstanding matters can be grouped as follows:

- Site-selection chronology and comparison: how the move from Norwich Main to Great Moulton altered the site-selection exercise; what changed between Scoping, PEIR, targeted consultation and the DCO application; and whether reasonable alternatives were reconsidered as the Scheme evolved.

- Site 1 and the Sub-Sites: why Sites 1A–1D remain required in their present form and how changes to the National Grid Substation, Project Substations, cabling, overhead-line works, access and associated infrastructure affected that justification.
- BESS and the combined infrastructure cluster: why the BESS remains appropriately located alongside the substations and other grid infrastructure, and whether the significance of the identified BESS-specific and combined effects informed the selection and subsequent retention of that location.
- Later evidence and design evolution: whether later information, including the detailed identification of substantial Grade 2 and Grade 3a BMV agricultural land and other environmental constraints, caused the earlier site-selection conclusions to be revisited. Mitigation introduced after selection may reduce an effect, but does not by itself explain why the selected location remained preferable to another reasonable location.
- Grid connection and delivery: whether the National Grid Substation and connection solution are sufficiently defined for the Examination to understand the infrastructure actually required within Site 1B, and whether any material change in the connection arrangements could affect the layout, land take or environmental assessment.
- Land, rights and retained infrastructure: which land and rights are required for the Scheme now proposed, which infrastructure is temporary or permanent, and whether those requirements remain consistent with the final configuration and connection solution.

These matters closely reflect the issues already raised by the ExA in ExQ1 Q1.3.1 and Q1.3.2: whether the Scheme remains robust following the change to a Great Moulton-centred solution, and the relative influence of environmental assessment, engineering considerations, grid connection, landowner willingness and land availability upon the Scheme that ultimately emerged.

“BEPS therefore asks that the Examination obtain the evidence identified above before reaching conclusions on whether the Site 1/BESS configuration, the associated grid infrastructure and the related land and rights sought are adequately justified in the form proposed.”

Note: “The Botley West EN010147 Secretary of State request is useful because it demonstrates the importance of a clear audit trail where a solar NSIP has changed or evolved around grid-connection options. It is not relied upon as binding precedent, but it is a persuasive comparator. In Botley West, the Secretary of State requested additional information on alternatives and site selection, including grid-connection options,

search radius, environmental/social/economic considerations, technical and financial feasibility, BMV land, flood zones and grid infrastructure timing.”

Chapter 6 Site Selection Compliance/Audit Trail, Horlock Compliance and Grid Hub Design

BEPS does not suggest that East Pye failed to undertake a site-selection exercise. The Applicant has provided a Site Selection Assessment [APP/7.20], an Environmental Statement chapter dealing with alternatives and design evolution [APP/6.1.5], the Design Approach Document [APP/7.17] and a substantial range of environmental assessments.

Our concern is more specific.

The Examination needs to be able to follow a clear audit trail showing **how the National Grid Substation location developed, why Site 1B was ultimately selected, when land availability and landowner willingness entered that process, how environmental constraints were applied between competing locations, and whether the final grid-hub design reflects the Horlock Rules.**

This is particularly important because Site 1B is no longer simply part of a solar site. It has become the main grid-infrastructure hub for the western part of the Scheme, containing or directly associated with the National Grid Substation, the 400kV Project Substation, overhead-line and pylon works, cable connections, access infrastructure and the adjoining BESS and 4.5m high tracking solar panels.

The site-selection evidence should therefore be capable of explaining the choice of this location **as a combined infrastructure cluster**, rather than only explaining the location of individual components.

6.1 Audit Trail – Options 1 to 4A and 4B

The Applicant's documents show that the National Grid Substation site-selection process developed over time. The original options did not include the final Site 1B location in the form now proposed. A further Great Moulton option was subsequently identified and the process developed into Options 4A and 4B.

APP/7.20 records that due to another solar planning and the loss of site 4A, Option 4B within Sub-Site 1B was ultimately targeted. We submit that the site was simply the easiest choice, undertaken by a desktop analysis, We would suggest no site visits were made, BEPS-Great Moulton have requested a site visit but these were refused.

The Applicant then confirmed through the targeted consultation between 22 October and 26 November 2025 that Option 4B would be taken forward. There is nothing inherently wrong with a site-selection process evolving. Major projects frequently develop as technical information, land arrangements and environmental information become available.

The difficulty for residents and, we suggest, for the Examination is that the assessments of the different options were undertaken at different stages and are spread across several documents.

BEPS therefore considers that a clearer audit trail is required showing:

- when each National Grid Substation option was first identified;
- what environmental and technical information was available when each option was considered;
- what criteria were applied to Options 1, 2 and 3;
- whether the same criteria and level of scrutiny were subsequently applied to Options 4A and 4B;
- when Option 4A was introduced and when Option 4B was first identified;
- when NGET became involved in assessing the Great Moulton alternatives;
- when the decision was made to prefer Option 4B and relevant site visits undertaken;
- what role land availability and landowner willingness played at each stage; and
- whether any environmental assessment undertaken before the final Site 1B configuration remained appropriate after the design changed.

The purpose of this request is not to reopen the entire site-selection exercise. It is to allow the Examination to understand and test the reasoning that led to the particular grid-hub configuration now before it.

6.2 Land Availability and Willing Landowners

Land availability is plainly a relevant consideration for a project of this scale.

APP/7.20 expressly records that the Applicant identified suitable land with landowners willing to participate in the Scheme while discussions concerning the grid connection were taking place. It also explains that land agents were used to identify larger landholdings with potentially willing landowners. [APP/7.20, including paragraph 6.1.3 onwards]

BEPS does not object to that approach simply because willing landowners were involved. A scheme cannot realistically be developed without considering whether land can be secured.

The important question is how much influence land availability had on the alternatives that were actually examined.

There is a difference between:

- first identifying technically and environmentally reasonable alternatives and then considering their deliverability,
  and
- allowing the availability of particular land to determine the alternatives that receive detailed environmental consideration.

The Applicant's Policy Compliance Document itself recognises landowner willingness and commercial and technical feasibility as part of its approach to alternatives. [APP/7.15]

BEPS therefore asks for clarification rather than making an assumption about the process.

- The Applicant should explain whether potentially suitable locations were excluded because land was not voluntarily available and, if so, at what stage. Where this occurred, it should distinguish clearly between an option being rejected because it was environmentally or technically unsuitable and an option not being pursued because of land ownership or commercial deliverability.

That distinction matters because Site 1B itself contains significant constraints which have subsequently required assessment and mitigation:

- These include landscape and visual effects, nearby residential receptors, public rights of way, agricultural land, water and drainage issues, ecology, heritage, rural access and the cumulative effects of concentrating the National Grid Substation, Project Substation, BESS, cables, overhead-line works and associated development in this part of the Scheme.

The Examination should therefore be able to see that comparable constraints were considered consistently when the competing locations were assessed.

6.3 Horlock Rules and Site 1B

The Horlock Rules are particularly important to the National Grid Substation.

The current NPS EN-5 states that environmental considerations should be addressed from the earliest stage of substation development and that technical and capital-cost requirements should be balanced against environmental effects so as to keep adverse effects to a reasonably practicable minimum.

The principles include protecting local amenity, important habitats and landscape features, historic hedgerows and surface and groundwater sources; taking advantage of existing landform and screening; minimising visual, noise and other environmental effects; considering land-use effects; and considering the form of equipment, buildings and ancillary development appropriate to the individual location.

National Grid similarly describes its substation siting process as considering matters including proximity to transmission infrastructure, access, topography, distance from residential areas and environmental, cultural and visual constraints.

Those principles are directly relevant to Site 1B.

The location is within a rural landscape and the final proposal represents a substantial concentration of electrical infrastructure. Although planting, hedgerow reinforcement and other mitigation are proposed, the Horlock approach places considerable importance on the initial choice and design of the site itself, including use of landform, existing screening, layout and levels.

The issue is therefore not simply whether Option 4B performed better than Option 4A in relation to flood risk or the public right of way.

The wider question is:

Has the Applicant demonstrated that the siting and design of the complete Site 1B grid hub keeps the resulting environmental effects to a reasonably practicable minimum?

BEPS considers that this would be much easier for the Examination to determine if the Applicant and NGET provided a simple Horlock Compliance Schedule for Site 1B.

That schedule should identify each relevant Horlock principle and explain:

- how it influenced site selection;
- what alternatives were considered;
- what environmental constraints were identified;
- what design response followed;
- where effects could not be avoided;
- what mitigation is relied upon; and
- why the final location and design were considered preferable.

Particular attention should be given to the open rural setting, proximity to homes, landscape and visual effects, noise, public rights of way, agricultural land, groundwater/private water supplies, access requirements and the cumulative presence of the associated BESS and Project Substation.

This would provide a much clearer basis for assessing Horlock compliance than requiring the Examination to reconstruct the reasoning from numerous separate documents.

6.4 AIS, GIS and Lower-Impact Substation Design

BEPS also considers that the Applicant should explain the technology and design alternatives considered for the 400kV infrastructure.

The present proposal appears to be based upon air-insulated switchgear (AIS). National Grid describes AIS as its standard arrangement for new substations, while GIS can be used in particular circumstances and has the advantage of being more compact, although generally more expensive.B

BEPS does not suggest that GIS must automatically be used at Site 1B, or that GIS would necessarily have lower environmental effects in every respect.

The question is whether a more compact arrangement could materially reduce some of the particular effects experienced at this location.

The Infrastructure Planning (Environmental Impact Assessment) Regulations require the Environmental Statement to describe reasonable alternatives studied by the developer, which can include alternatives relating to design, technology, location, size and scale, together with the main reasons for choosing the preferred option.

EN-1 similarly requires information about reasonable alternatives actually studied by the Applicant, while recognising technical and commercial feasibility.

BEPS therefore asks the Applicant and NGET to explain:

- whether GIS was considered for any part of the National Grid or Project Substation infrastructure;
- whether hybrid AIS/GIS arrangements or other compact layouts were considered;
- whether those alternatives could reduce the overall footprint, height or spread of equipment, agricultural land take or visual exposure;
- what technical disadvantages or operational constraints would arise;
- the comparative implications for construction, maintenance, cost and future expansion; and
- why the configuration within the current Rochdale Envelope represents the appropriate design for this particular rural location.

If GIS or another compact design was considered and rejected, an explanation would resolve the issue..

If it was not considered, BEPS asks the Applicant to explain why it was not regarded as a reasonable design alternative for Site 1B.

6.5 Consistency in the Treatment of Constraints

A recurring concern throughout the site-selection evidence is whether constraints were applied consistently. APP/7.20 records reasons for discounting various locations including flood risk, access, public rights of way, environmental constraints, land availability and interaction with other development.

Many of those same types of constraint are also present to some degree around Site 1B.

That does not mean that Site 1B should necessarily have been rejected. It does mean that the Examination should be able to understand why a constraint regarded as important at one location was considered capable of mitigation at another.

BEPS therefore asks for a short comparative schedule showing the principal criteria applied to Options 1, 2, 3, 4A and 4B and the Applicant's assessment against each criterion.

This need not become another lengthy environmental report. A transparent table would be sufficient, provided that it identifies the supporting document and assessment date.

6.6 Information Requested from the Applicant and NGET

BEPS considers that much of the uncertainty could be resolved through one consolidated response rather than further information being scattered across separate submissions.

We ask the Examining Authority to consider requesting a Site 1B Grid Hub Site-Selection and Design Audit Statement, prepared by the Applicant with input from NGET where appropriate.

It should contain:

1. A dated chronology of Options 1, 2, 3, 4A and 4B, including when each was identified, assessed and discounted or selected.
2. A common comparison table showing the environmental, technical, access, land, residential and planning criteria applied to each option.
3. A land-availability statement explaining when willing-landowner considerations entered the process and whether any otherwise reasonable alternatives were excluded because land was unavailable.
4. A record of NGET involvement, explaining what assessment NGET undertook or reviewed in relation to the Great Moulton options and when.
5. A Horlock Compliance Schedule for the final Site 1B location and design.
6. An AIS/GIS and design-options statement explaining whether more compact technology or layouts were considered and why the proposed arrangement was selected.

7. Confirmation of the current grid-hub configuration, including the National Grid Substation, Project Substation, BESS relationship, overhead-line/pylon works, cable connections, access and any infrastructure intended to remain permanently.
8. Confirmation that the environmental baseline remains applicable to the final configuration. If material elements of the layout, access arrangements, cable routes, substation design or associated works change, the Applicant should identify which environmental assessments and plans require updating.

The purpose would not be to create another large body of evidence. It would provide a single document through which the Examination, Interested Parties and local residents can follow the development of the Site 1B decision from the early alternatives through to the final proposal.

6.7 Conclusion

BEPS's concern is therefore not that East Pye undertook no site-selection work.

The concern is that the route from the earlier alternatives to the present Site 1B grid hub is difficult to follow because the process evolved over time, the evidence is spread between different documents, land availability formed part of the selection process, and the scale and role of Site 1B itself developed substantially.

The National Grid Substation is permanent infrastructure and Site 1B now forms the centre of a much wider cluster involving the Project Substation, BESS, overhead-line works, cables, access and associated development.

For a decision of that importance, the Examination should be able to follow a clear evidence trail showing:

- why this location was selected;
- what alternatives were genuinely considered;
- how landowner willingness affected that process;
- whether the same constraints were applied consistently;
- how the Horlock Rules influenced the decision; and
- whether a less extensive or less intrusive substation design was reasonably available.

BEPS therefore asks the Examining Authority to require the Applicant, with NGET where appropriate, to provide the consolidated audit information identified above before the close of Examination.

That would allow the final Site 1B grid-hub proposal to be considered on the basis of a clear and transparent site-selection and design record, rather than requiring the reasoning to be reconstructed from a number of separate documents.

Chapter 7 Climate Change

Residents object to the adequacy of East Pye's climate-change assessment for Great Moulton, Site 1A–1D and the BESS / grid-hub area.

East Pye should demonstrate climate resilience of the Site 1 grid hub and BESS under future rainfall, heat, drought and storm conditions. The assessment should include climate-adjusted runoff modelling, soil compaction and infiltration, drainage exceedance, firewater containment, emergency access during extreme weather and local microclimate effects on hedgerows, fields and receptors.

Our objection to an Environmental Impact Assessment that relies on the climate benefits of solar generation while failing to demonstrate that this particular development, in this particular rural location, is resilient to the climate pressures now expected over its operational lifetime.

Chapter 8 Landscape and Visual

Great Moulton and the surrounding Plateau Farmland are defined by open agricultural views, historic field patterns, quiet lanes, public rights of way and rural tranquillity. The proposed National Grid substation, project substation, BESS-linked infrastructure, fencing, lighting, access tracks and associated works would introduce a permanent industrial character into a landscape whose value lies in openness, continuity and low levels of built form.

The harm is not limited to individual viewpoints. Residents, walkers, cyclists, horse riders and neighbouring parishes would experience the combined effect of panels, substations, pylons, lighting, security infrastructure and construction access as a single infrastructure cluster. Screening would not remove that harm; it would itself alter the open rural character of the landscape.

The LVIA should be receptor-led for Great Moulton and should assess the combined appearance of solar arrays, National Grid Substation, 400 kV Project Substation, BESS, pylons, fencing, lighting, access and mitigation planting. Screening cannot be treated as a complete answer because it can itself alter openness and the historic plateau character.

8.1 Applicant's own LVIA findings

The existence of substantial landscape harm is not simply BEPS's interpretation. BEPS's consolidated review of the Applicant's LVIA records Major Significant effects at Site 1 during construction, at Year 1 and continuing at Year 15, together with a description of a "total change" to key landscape characteristics. The BESS also remains Moderate Significant at Year 15.

Those findings are directly relevant to alternatives and site selection. Where the Applicant's own assessment identifies enduring significant effects from the selected Site 1 grid hub.

The ExA should address not only how the infrastructure will be screened, but why this location was selected and retained in preference to reasonable less harmful alternatives.

8.2 Misrepresentation of images

We ask the ExA to request the Applicant to provide coordinates, camera height, lens information and the receptor represented for any disputed image.

8.2.1 Clarification of where this image was taken?

We submit this photographic image **is not** part of Great Moulton Landscape

View Location Reference: Site 1/National Grid Sub Station - VL2 (b)



Site Context Photograph (2 of 2)

This panorama is not to scale. For contextual information only



8.2.2 Site 1B - Distortion of site looking towards Village Boundary

The panoramic photo creates a huge distortion of the actual distance between the properties and field boundaries of Oak Farm and Laburnham Farm and even Potters Crescent

Where wide-angle images are used, we request verified visualisations or equivalent images at standard focal lengths and from agreed receptor locations.

EAST PYE WIDE ANGLE LENS



Photographic Image taken from same location using normal lens

The Boundary to beginning of Village Boundary



8.2.3 Site 1B - Distortion of site looking towards Broadgate Lane from Frith Way

This Image shows the National Grid positioning, (the image appears to have been taken with a wide angle lens, distorting the depth of the landscape. The image is taken from Frith Way looking towards Broadgate Lane. This image does not reflect that its boundary is close to other residential boundaries or Narrow Gate Lane PRoW

We submit that the Applicant should supply close-up images - giving the proposed perspective of the POC Substation at all four views within sub-site 1B, using a normal lens. Giving clear measurements at each boundary.


Extent of Maximum
Development Parameter

Chapter 9 Ecology and Biodiversity

The ecological concerns around Great Moulton are not marginal. Site 1 and the surrounding landscape sit within a sensitive network of hedgerows, ditches, ponds, ancient woodland edges, dark corridors and field margins used by Barbastelle bats, other bat species, birds, great crested newts, mammals and notable verge flora.

The proposed infrastructure would fragment this network through fencing, lighting, trenching, access works, noise, construction disturbance and long-term land-use change. The particular concern is the combined effect of the National Grid substation, project substation, BESS-related infrastructure, solar arrays, cable routes and maintenance activity on functional ecological connectivity.

The ecological case should address the final grid-hub layout, including bat corridors, dark corridors, hedgerows, ponds, ditches, great crested newts, birds, botanical interest and BNG baseline.

The ExA should require updated survey validity and licensing deliverability evidence before relying on deferred mitigation.

Chapter 10 Water Environment

Great Moulton has a sensitive rural water environment and the water assessment should be consolidated into a Site 1 / BESS source-pathway-receptor model, with private water supplies, groundwater, ditches, drainage, transformer oils, BESS firewater, sediment control, baseline monitoring and alternative supply commitments secured in enforceable requirements.East Pye has identified and assessed private water supplies and other lawful water users, including through APP/6.3.16.1 and APP/6.3.9.3. The remaining issue is whether the assessment and proposed controls provide sufficient protection for individual receptors potentially affected by the Site 1/BESS development.

The assessment should therefore be considered on a receptor-specific source–pathway–receptor basis, having regard to the local geology and groundwater environment, construction activities, foundations and piling where applicable, drainage arrangements and the potential movement of contaminants.

Particular consideration should also be given to the management of contaminated runoff and firewater associated with the BESS, including how such water would be contained and prevented from reaching groundwater, surface-water features or private abstractions.

BEPS considers that the Examination should establish whether appropriate baseline information, receptor-specific monitoring and clearly secured mitigation are in place before

relevant construction activities commence, together with an appropriate response procedure should water quality or supply be affected.

10.1 Independent hydrogeological review

The water objection is further reinforced by the independent H Fraser Consulting review summarised in BEPS's consolidated evidence. HFCL identifies 15 technical deficiencies concerning the conceptual hydrogeological model, WFD assessment, water resources, private supplies, groundwater-dependent terrestrial ecosystems, firewater, foundations and other pathways, and concludes that there is a "significant lack of confidence" that impacts on the water environment are properly understood or capable of mitigation.

This is particularly relevant at Site 1, where substations, BESS infrastructure, hardstanding, transformers, foundations, drainage and firewater controls are concentrated. It strengthens the case that later Foundation Works Risk Assessments, drainage details and construction method statements should refine an already demonstrated acceptable solution, rather than determine after consent whether an acceptable solution exists.

Chapter 11 Cultural Heritage

Heritage should be assessed as a landscape-wide setting issue, including historic lanes, field patterns, archaeological sensitivity, listed buildings, Wacton and Tivetshall context, dark skies and tranquillity, not as isolated asset impacts. The effect of a permanent grid node on historic landscape legibility should be specifically addressed.

The DCO should not proceed without a full cumulative heritage-setting assessment, receptor-specific dark-sky and lighting evidence, archaeological safeguards and a clear explanation of why less harmful locations have not been selected.

Chapter 12 Transport and Access , Public Rights of Way and Glint/Glare

Great Moulton, Tivetshall and surrounding villages rely on narrow rural lanes with soft verges, deep ditches, limited passing places and little or no pedestrian infrastructure. The Transport and PRoW assessment should cover rural-lane suitability, abnormal loads, HGVs, worker traffic, verge/ditch damage, Station Road, Frith Way, Lodge Road, Hundred Lane, Narrowgate Way, emergency access, cyclists, equestrians and walkers. Glint / glare should be receptor-specific for homes, PRoW, roads, rail and aviation.

The ExA should require a definitive Frith Way and Station Road access-management schedule, including phasing, closures, PRoW, emergency access and simultaneous restriction controls and proposed Haul Routes

Chapter 13 Noise and Vibration

Great Moulton is a quiet rural parish with very low background sound levels, particularly at night. In that context, construction noise, HGV movements, reversing alarms, piling, generators, transformers, inverters, cooling fans and BESS equipment would be highly noticeable and intrusive. The concern is both temporary and permanent..

East Pye has not demonstrated that the evidence it has presented on the anticipated noise and vibration studies are accurate and well defined.The purpose of requesting a private study is to bring to the attention of the Planning Inspectorate this fact. See Appendix 2.

Noise should be assessed for construction, decommissioning and operation against a very quiet rural baseline, The Applicant should demonstrate how LOAEL and SOAEL thresholds have been applied to this rural baseline, how low-frequency and tonal noise have been assessed, how night-time impacts will be controlled, and how cumulative noise from Site 1, Site 2B, BESS and National Grid infrastructure will be prevented from causing unacceptable harm.

The unaddressed issue of the permanence of the National Grid POC and the proposed haul Road across The Bess Site and Site 1 needs to be resolved.

13.1.1 Great Moulton - Private Consultants - Noise Analysis

The Oakridge review will be retained as Appendix 2 and used to identify the technical questions for East Pye: source sound levels, locations, tonal corrections, low-frequency assessment, night-time levels, cumulative plant and post-installation monitoring.

The evidence presently before the Examination does not justify the siting of permanent, large-scale transmission infrastructure on Grade 2 agricultural land within an exposed rural landscape close to homes, public rights of way, ecological receptors, heritage assets, and private water supplies. Nor has East Pye demonstrated that the Great Moulton location represents the least-harm or most appropriate option when compared with reasonable alternatives.

Chapter 14 Air Quality

Great Moulton currently benefits from clean rural air and has no comparable industrial emission source.

Air-quality controls should include dust, diesel emissions, construction traffic, soil disturbance and BESS / transformer incident emissions.

The BESS also raises a distinct air-quality and safety concern because thermal events can release toxic gases, combustion products, particulates and contaminated residues. In a rural location surrounded by arable fields, hedgerows and dry vegetation, the risk of secondary fire spread and emergency access constraints must be assessed as part of the environmental case.

The definition of “maintain” in the DCO must be tightly constrained so future replacement or refurbishment works do not create new environmental effects without proper assessment. and controlled for dust, emissions, construction traffic, operational maintenance, fire response, contaminated runoff, monitoring and decommissioning.

Chapter 15 Socio-Economics

The socio-economic harm is wider than direct construction employment or landowner benefit. Great Moulton’s local economy is tied to productive agriculture, rural contractors, tourism, quiet lanes, heritage visits, pilgrimage routes, equestrian use, country pursuits, local accommodation and the broader appeal of an unspoilt rural landscape.

The proposed infrastructure would reduce the attractiveness and usability of the area by replacing tranquillity, open views and historic rural character with substations, BESS compounds, fencing, lighting, traffic and operational noise. It would also remove productive farmland and reduce demand for agricultural contracting, machinery, seasonal labour and related rural services.

East Pye should be required to assess these local economic losses, including impacts on rural businesses, tourism, equestrian activity, agricultural contractors, property amenity and long-term confidence in the area. The benefits of the scheme should not be overstated unless they are compared transparently with these local and cumulative harms.

Chapter 16 Soils and Agriculture

The land around Great Moulton contains high-quality agricultural soils, including Grade 2 Best and Most Versatile land. The Applicants s own material identifies Grade 2 land within Site 1, the National Grid substation area, the project substations, the BESS site and assumed areas of Site 2B. This is not marginal land; it is productive agricultural land with long-established soil structure and historic agricultural continuity.

APP/6.3.15.1 – ES Volume 3, Appendix 15.1: Agricultural Land Classification Report. This contains the detailed survey undertaken by Amet Property Ltd and the maps showing the distribution of the agricultural land grades, including Grade 2, Grade 3a and Grade 3b land.

The proposal would cause temporary, long-term and permanent harm through compaction, trenching, foundations, access tracks, hardstanding, substations, BESS infrastructure, altered drainage, contamination risk and potential panel degradation. The National Grid substation and other fixed infrastructure cannot be treated as reversible solar occupation because they permanently remove or alter agricultural land.

The Applicant should provide a field-by-field ALC/BMV schedule distinguishing temporary, long-term and permanent land take, compaction, trenching, foundations, hardstanding, drainage change, restoration

Chapter 17 Ground Conditions

Great Moulton's ground conditions reflect centuries of agricultural use with limited deep disturbance.

The risks include compaction, altered drainage, localised flooding, subsurface barriers, ground instability, contamination from oils or fire residues, and long-term degradation from infrastructure remaining in place for decades. These risks are particularly important where homes, lanes, ditches, water supplies, archaeological remains and productive fields sit close to the proposed works.

The Applicant Ground condition assessments should cover geotechnical stability, piling, trenching, compaction, contamination pathways, UXO where relevant, drainage stability, archaeological sensitivity and remediation. Baseline and monitoring commitments should be secured before intrusive works.

Without these, the Examining Authority cannot be confident that ground integrity and agricultural viability will be protected.

Chapter 18 Electromagnetic Fields

The proposal would introduce new EMF sources into a rural parish with no comparable baseline, including the National Grid substation, project substations, high-voltage cabling, inverters, transformers and BESS infrastructure. The relative increase in exposure is therefore material for nearby homes, gardens, PRoW and sensitive receptors.

Children, residents, wildlife and aviation receptors require particular consideration. The concern is not simply whether generic public exposure limits are met.

The EMF assessment should map receptors, cable routes, overhead lines, substations, PRoW and homes. The issue is not only generic compliance with public exposure limits but the

cumulative infrastructure layout and the adequacy of separation and shielding. Until this evidence is provided, the EMF assessment should be treated as incomplete.

Chapter 19 Other Environmental Matters

The utilities assessment does not yet demonstrate that the scheme can be delivered without unacceptable risk to existing services and community resilience, this is particularly important in a rural parish where residents may rely on private wells, shallow utility routes, broadband connections, emergency medical alarms and constrained local access. Loss of connectivity, water supply, access or service reliability would have serious consequences for daily life and public safety.

Utilities, broadband, telecoms, glint/glare, waste, materials and human health should be assessed in a way that reflects rural community resilience. The Applicant should provide utility surveys, diversion/protection plans and service-continuity commitments.

These matters should not be left to unresolved post-consent detail.

Chapter 20 National Grid Infrastructure Cluster

The National Grid substation, project substations, BESS-related infrastructure, transformers, inverters, cabling corridors, access roads, fencing, lighting and associated works form a permanent industrial cluster. This cluster would remain as a long-term grid node even if solar elements were later removed, and it should be assessed as a single operational and cumulative development with a clear permanent legacy.

The combined impacts include operational noise, low-frequency hum, lighting, visual intrusion, fire and major accident risk, emergency access requirements, firewater containment, contamination pathways, glint and glare, rail and aviation safety concerns, and long-term landscape industrialisation. These impacts fall on a rural parish with private water supplies, narrow lanes, sensitive ecology and valued PRoW.

Chapter 21 Cumulative and In-Combination Effects

The central planning issue is cumulative harm. Cumulative effects should include overlapping construction, operation, maintenance/replacement, decommissioning, future grid-node effects and other energy proposals. The assessment should address the lived experience for Great Moulton, Tivetshall and Wacton.

Cumulative effects include loss of rural quiet and dark skies, visual industrialisation, ecological fragmentation, heritage harm, repeated construction traffic, ongoing maintenance and

replacement traffic, noise, air quality impacts, loss of BMV land, pressure on utilities and private water supplies, glint/glare effects, and mental health impacts from long-term uncertainty and loss of place.

Chapter 22 Human Health and Wellbeing

The Human Health assessment should consider the consequences for residents and other users who rely upon private water supplies if construction or operation of the Scheme were to affect water quality, quantity or reliability.

East Pye has undertaken assessment of private water supplies and lawful water users. The relevant human-health question is therefore whether the proposed prevention, monitoring and response measures provide adequate protection for households dependent upon those supplies.

This includes consideration of potential contamination arising from construction activities and, in relation to the BESS, the consequences of an abnormal incident involving contaminated runoff or firewater. The detailed hydrogeological pathways and mitigation are addressed in the Water Environment chapter; the Human Health chapter should address the resulting exposure and welfare implications for affected receptors and the measures available to maintain a safe and reliable alternative supply if required.

Human health and wellbeing are material considerations under EN-1 and EN-5. Great Moulton's health and wellbeing baseline is defined by rural quiet, clean air, dark skies, safe walking routes, access to countryside, social cohesion and the daily use of lanes and PRoW as the parish's functional green space. Human health and wellbeing should assess sensory and community effects: noise, lighting, traffic, loss of safe recreation, glint/glare, EMF concern, uncertainty, rural isolation, access disruption and vulnerable residents.

The Applicant must now scope back in the "Human Health and Wellbeing" as specified by the ExA at the ISH on September 17

Chapter 23 Great Moulton Specific Issues

Great Moulton should be treated as a place-based receptor. The central issue is whether the village edge can absorb a permanent and high-voltage grid hub without unacceptable harm to amenity, safety, landscape, water, ecology, PRoW, agriculture and heritage.

The Applicant's own site-selection narrative shows that the project became driven by the need to find a new 400 kV connection location after Norwich Main was unavailable. That history makes it essential to test whether the chosen Great Moulton/Tivetshall location is genuinely least harmful or merely grid-convenient.

The proposal raises unresolved concerns on site selection, reasonable alternatives, Horlock Rules compliance, Grade 2 BMV land, GIS alternatives, fire safety, private water supplies,

drainage, long-term landscape change, lighting, bat activity, great crested newts, access routes, Frith Way, Lodge Road, Hundred Lane, PRoW, FP13, residential amenity, glint and glare, and the proportionality of imposing permanent infrastructure on a small rural community.

East Pye should be required to provide updated and integrated documents where layout, access, grid works, tower works, substation design, BESS relationship or mitigation has changed. This should include updated works plans, land plans, draft DCO, Book of Reference, grid connection statement, LVIA, RVAA, drainage and flood-risk material, ecology and BNG evidence, heritage and settings assessment, soils evidence, LEMP, decommissioning plan, traffic/access assessment, glint/glare/aviation assessment and any compulsory-acquisition or protective-provisions material affected by the change.

The Planning Inspectorate should not allow these matters to be deferred or treated as minor. The residents of Great Moulton, Tivetshall and Wacton require a clear, evidence-based explanation of why this location has been selected, why less harmful alternatives have been rejected, and how the full cumulative effects of the National Grid substation and associated infrastructure.

Chapter 24 Core position.

BEPS and residents do not dispute the national need for renewable electricity generation or the important contribution that solar generation can make.

Our objection is more specific. **East Pye must demonstrate that the particular land, infrastructure and configuration now proposed across Great Moulton, Tivetshall and Wacton are appropriately justified, having regard to the reasonable alternatives considered, and that their environmental and community effects have been adequately assessed and secured.**

This is particularly important for **Sites 1A–1D, Site 2B and the BESS/Site 1 grid-infrastructure cluster**, where solar generation is combined with, or affected by, major electrical infrastructure, access, cabling, substations, overhead-line works, drainage, mitigation and associated development.

East Pye states in its Site Selection Assessment that previously developed land, brownfield land, industrial land and commercial rooftops were considered, but that no suitable land of sufficient scale was identified for the proposed 500 MW utility-scale solar development. [APP/7.20, paras 4.4.9–4.4.14; APP/7.14]

The Examination issue is therefore not whether those alternatives were mentioned, but whether the Applicant has demonstrated that the exercise was sufficiently robust and remains applicable to the Scheme now proposed.

East Pye should therefore explain:

- the geographical extent and date of the brownfield and previously developed land search;
- the basis for excluding sites below the thresholds used in APP/7.20;
- whether combinations of smaller sites and commercial or other suitable roofspace were meaningfully considered;
- why the assumptions concerning the scale and distribution of land required were reasonable;
- whether that assessment was revisited after the Point of Connection moved to Great Moulton and Sites 1 and 2 were subsequently added;
- how the preference in EN-3 for suitable previously developed, brownfield, contaminated and industrial land was applied;
- how the later identification of substantial Grade 2 and Grade 3a Best and Most Versatile agricultural land affected the continued selection and retention of the agricultural land now proposed; and
- whether reasonable opportunities to reduce the overall agricultural-land requirement, remove individual fields or relocate particular infrastructure were reconsidered as the Scheme evolved.

BEPS does **not** suggest that East Pye is required to pursue every conceivable alternative method of producing renewable electricity, nor that rooftop solar elsewhere is automatically a substitute for this 500 MW NSIP. The relevant question is whether the **reasonable location, scale, layout and design alternatives capable of meeting the objectives of the proposed development** have been transparently identified and adequately considered.

The burden remains upon East Pye to explain why the particular Scheme now before the Examination remains justified in light of the environmental information subsequently obtained, the evolution of the grid connection, the concentration of infrastructure around Site 1 and the BESS, the use of BMV agricultural land and the significant effects identified in its own assessments.

Concluding Request

Great Moulton, Tivetshall and Wacton residents respectfully ask the Examining Authority to require East Pye, and NGET where relevant, to provide the outstanding evidence, reconciliations and secured controls identified in this representation before conclusions are reached on the acceptability of the Scheme.

The residents do not seek to undertake the Applicant's design exercise, identify alternative sites on its behalf or reconstruct its environmental case from dispersed application documents. **It is**

for East Pye to demonstrate that the particular siting, land take, infrastructure and design for which consent and associated powers are sought are adequately justified, sufficiently assessed, deliverable and subject to effective and enforceable mitigation.

Where the Applicant relies upon later detailed design, East Pye should demonstrate the assessed worst case and identify the binding control which prevents the eventual development from exceeding that environmental envelope. Where the final NGET connection solution, BESS connection arrangements or other material infrastructure remain uncertain, East Pye should demonstrate that the land, powers and environmental conclusions now sought remain justified under the realistically foreseeable outcomes.

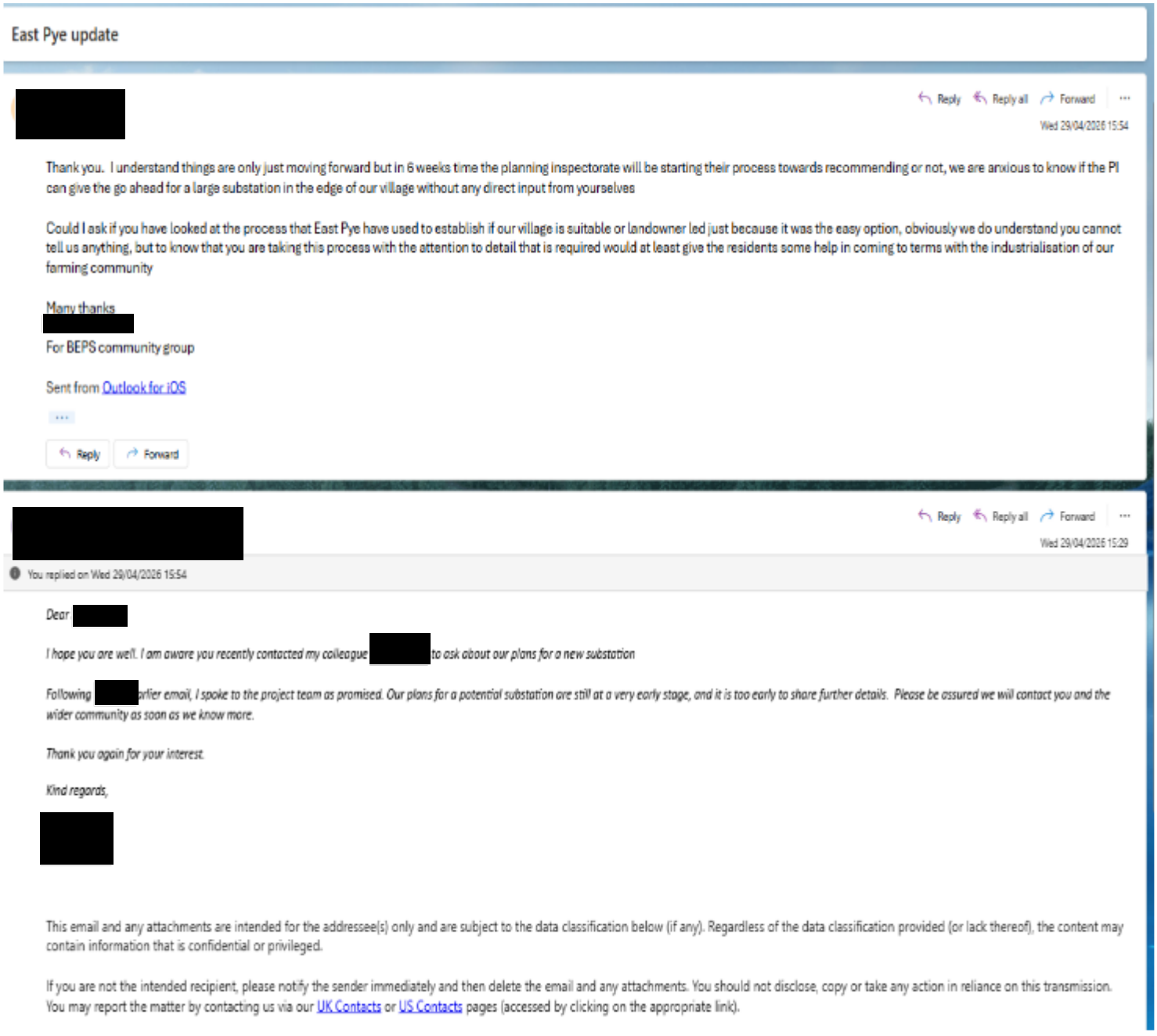
Until those matters are satisfactorily resolved, BEPS submits that the Examining Authority should not assume that the particular Site 1/Site 2B/BESS configuration, associated permanent grid infrastructure and related land requirements have been adequately justified merely from the established national need for renewable energy.

I think this is **stronger for Examination purposes** than the original. It avoids three arguments East Pye could otherwise make immediately: that national need is already established by the NPS, that brownfield/rooftops were in fact considered, and that the policy test does not require East Pye to prove its site is literally the “least harmful” possible location.

The useful challenge is instead: **show us how robust your brownfield/rooftop exercise actually was; show us why its assumptions remained valid after the Point of Connection and Scheme changed; and show us why later Grade 2/BMV and other environmental evidence did not alter the land-selection conclusions.** That keeps the evidential burden where you want it—on East Pye.

Appendix 1

Correspondence between the Village and National Grid Regarding the POC.



East Pye update

[redacted]

Reply Reply all Forward ···

Wed 29/04/2026 15:54

Thank you. I understand things are only just moving forward but in 6 weeks time the planning inspectorate will be starting their process towards recommending or not, we are anxious to know if the PI can give the go ahead for a large substation in the edge of our village without any direct input from yourselves

Could I ask if you have looked at the process that East Pye have used to establish if our village is suitable or landowner led just because it was the easy option, obviously we do understand you cannot tell us anything, but to know that you are taking this process with the attention to detail that is required would at least give the residents some help in coming to terms with the industrialisation of our farming community

Many thanks

[redacted]

For BEPS community group

Sent from Outlook for iOS

···

Reply Forward

[redacted]

Reply Reply all Forward ···

Wed 29/04/2026 15:29

You replied on Wed 29/04/2026 15:54

Dear [redacted]

I hope you are well. I am aware you recently contacted my colleague [redacted] *to ask about our plans for a new substation*

Following [redacted] *earlier email, I spoke to the project team as promised. Our plans for a potential substation are still at a very early stage, and it is too early to share further details. Please be assured we will contact you and the wider community as soon as we know more.*

Thank you again for your interest.

Kind regards,

[redacted]

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Good morning [redacted]

Thank you for this info and the promise of an update if things change.

I have taken the liberty of sending a copy to the contact at Great Moulton Parish Council, [redacted], so she has a direct link to you for the future.
Many thanks,
[redacted]

> On 16 Oct 2025, at 20:43, [redacted]@nationalgrid.com> wrote:
>
> Dear [redacted]
>
> Further to my email below I have spoken to our development team regarding a potential connection for East Pye.
>
> To confirm, we are yet to develop plans for a new substation connection in the area and do not have a preferred location. Please be assured we will look to inform you and the local community once we have something to share.
>
> Best wishes
>
> [redacted]
>
> Head of External Affairs
>
> Electricity Transmission
>
> National**grid**

From: [redacted]**nationalgrid.com>**
Sent: Wednesday, January 21, 2026 3:20:42 PM
To: [redacted]
Cc: [redacted]**nationalgrid.com>;** [redacted]
[redacted]**@nationalgrid.com>**
Subject: RE: [EXTERNAL] Urgent Concerns and Clarification Required: Proposed National Grid Substation at East Pye Solar Park

H[redacted]
Thank you for your message.
I am just checking your questions with our project team and will be in touch with a response.
Best wishes
[redacted]
Head of External Affairs
Electricity Transmission
National**grid**

[redacted]
[redacted]@nationalgrid.com
National Grid House (Floor 5), 1-3 The Strand, London, WC2N 5EH
nationalgrid.com | Twitter | LinkedIn
Please consider the environment before printing this email.
[redacted]
Advance notice of holiday:

From: [redacted]
Sent: 20 January 2026 12:55
To: [redacted]**@nationalgrid.com>**
Cc: [redacted]**nationalgrid.com>;** [redacted]
[redacted]**@nationalgrid.com>**
Subject: Re: [EXTERNAL] Urgent Concerns and Clarification Required: Proposed National Grid Substation at East Pye Solar Park

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[redacted]
Thank you for you response
We were aware that East Pye Solar is preparing a Development Consent Order which they propose to submit in February and as part of this is the proposal for a parcel of land as a potential site for the possible National Grid Substation, what we as a village are concerned about is the proximity of this to the village, some 25 metres from property boundaries and public bye-ways and given the fact that Norfolk Fire Service have reported that the proposed location is unsafe due to its proximity to homes and it would cause an existential threat to Tibenham Airfield, given the gravity of this situation and this decision on siting for local residents and businesses transparency about how the decisions are made we feel is extremely important and although this scheme has not reached planning it has unexpectedly been given a Gate2 connection (we assume as it has Secured Land Rights), but:

You state that 'The scheme's grid connection agreement requires East Pye Solar to source suitable land for the substation connection and to consent it on our behalf.' Therefore, could you clarify whether National Grid has any say in whether this is a suitable location and if this location is found to be unsuitable due to the various issues highlighted previously at what stage will the National Grid require a new location to be found?
East Pye state they have a Gate 2 connection but I am confused as having read the Queue Management Milestone M1 – Planning Submission - What M1 now requires (updated under CMP434):

If validation has not yet occurred at the time of Gate 2 application, the submitted application itself may be provided temporarily —but the planning reference number must be provided before the Gate 2 Offer is issued."
Therefore as East Pye have not achieved the Gate2 criteria why are the National Grid considering this application?
I look forward to your thoughts
Kind regards
[redacted]
We would - Steering Group

From: [redacted] nationalgrid.com>
Sent: Thursday, January 08, 2026 09:08
To: [redacted]
Cc: [redacted] nationalgrid.com>; [redacted] @nationalgrid.com>
Subject: RE: [EXTERNAL] Urgent Concerns and Clarification Required: Proposed National Grid Substation at East Pye Solar Park

Dear [redacted]
Happy New Year and apologies for the delayed response. Below is an update which I hope answers your questions.
As you are aware, East Pye Solar Limited (a subsidiary of Island Green Power) is preparing a Development Consent Order application. The scheme includes proposals for a parcel of land which has been identified as a site for a possible National Grid substation which will connect the solar farm to the high voltage network.
The scheme's grid connection agreement requires East Pye Solar to source suitable land for the substation connection and to consent it on our behalf. We have reviewed the proposals and will continue to work with East Pye Solar, and provide feedback, during their examination process this year.
At National Grid we continually review site selection for potential connections to ensure network needs are met and to support our customers. I am not sure if you are familiar with Connections Reform but for awareness, it is an overhaul of the grid connection process which prioritises projects that are ready and needed to help maintain a reliable network. As part of this, the process will determine if the proposed substation site for East Pye Solar is the most suitable solution when considering other projects progressing through Connections Reform.
Once all these factors have been considered, and the associated work is complete, we will be able to share more information with you and the local community about our plans.
Best wishes
[redacted]
Head of External Affairs
Electricity Transmission
National**grid**

[redacted]
[redacted]@nationalgrid.com
National Grid House (Floor 5), 1-3 The Strand, London, WC2N 5EH
nationalgrid.com | Twitter | LinkedIn
Please consider the environment before printing this email.
[redacted]
Advance notice of holiday:

From: [redacted]
Sent: 17 December 2025 17:16
To: [redacted]**nationalgrid.com>**
Subject: Re: [EXTERNAL] Urgent Concerns and Clarification Required: Proposed National Grid Substation at East Pye Solar Park

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Hello [redacted]
Further to my email of the 6 November, I was wondering if you have been able to ascertain anything relating to this new substation that East Pye Solar are proposing?
We as a village are very anxious about the proximity of this to our village and also as East Pye have managed to obtain a Gate 2 connection with NESO, even though they are not meeting the criteria that NESO have set, we are more concerned about this substation, the build timelines and any consultations that may or not be required before this sub-station is built. Our local councils, both South Norfolk and Norfolk CC, have both expressed their concern about the access routes to build this structure and how they would be able to manage to contain any incidents that may occur.
Also we would like to raise the following points to raise the seriousness of this proposed development.
'The proposed new East Pye Solar National Grid substation is located within a groundwater Source Protection Zone in the catchment of a sensitive river, in a landscape containing multiple private drinking water supplies, immediately adjacent to the London–Norwich main railway line and within the safeguarding influence of Tibenham airfield. The local road network is incapable of accommodating the required abnormal indivisible loads, such that access would depend on constructing new haul routes across clay fields, with significant geotechnical intervention, drainage disruption and increased pollution risk to the underlying aquifer and water environment. The site is also located approximately 100 metres from existing homes in and around the village of Great Moulton, and the fire and rescue service has advised that this separation distance is dangerously small for a substation of this scale and type, creating an unacceptable level of residual risk to nearby residents in the event of fire, explosion or major incident. Taken together,

these constraints indicate that the selected site is inherently unsuitable for a substation of this nature, and that the promoter has not demonstrated a realistic, environmentally acceptable or safe means of construction and operation when reasonable alternative locations are clearly available.'

Thank you [redacted] and I look forward to hearing from you shortly.

Kind regards

[redacted]

We would Steering Group

Great Moulton

From: [redacted]@nationalgrid.com>

Sent: 06 November 2025 09:13

To: [redacted]

Subject: RE: [EXTERNAL] Urgent Concerns and Clarification Required: Proposed National Grid Substation at East Pye Solar Park

Hi S[redacted]

I hope you are well and thank you for your latest email.

Let me pick this up with our project team to understand more.

I will be in touch next week.

Best wishes

[redacted]

[redacted]

Head of External Affairs

Electricity Transmission

National**grid**

[redacted]

National Grid House (Floor 5), 1-3 The Strand, London, WC2N 5EH

nationalgrid.com | Twitter | LinkedIn

Please consider the environment before printing this email.

[redacted]

Advance notice of holiday:

From: [redacted]

Sent: 02 November 2025 19:24

To: [redacted]@nationalgrid.com>

Subject: [EXTERNAL] Urgent Concerns and Clarification Required: Proposed National Grid Substation at East Pye Solar Park

CAUTION: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe. If you suspect this email is malicious, please use the 'Report Phish' button.

Dear [redacted]

I didn't think I would have to bother you so soon, but we have just received a Targeted Consultation document from East Pye Solar Park. East Pye Solar - Targeted Consultation Document. This highlights significant changes regarding the siting of a substantial National Grid Substation, new pylons up to 61 metres, and a 400kV substation up to 13 metres which have caused significant distress among residents. I am sure you are aware it is imperative that electricity network developments avoid unacceptable impacts on residential amenity, noise and lighting.

The proposed Sub-Site 1B and the additional site 1D allocated for the National Grid 400 kV substation would place major industrial infrastructure just 300 metres from homes and less than 900 metres from the heart of Great Moulton village. This site is entirely situated within an Environment Agency Drinking Water Safeguard Zone and Source Protection Zone 2, encompassing numerous private wells. This raises serious risks to residential amenity, groundwater quality, and public health, especially given the presence of oil-filled transformers and the risk of fire-water run-off posing contamination threats that contravene the Water Resources Act 1991 s.93.

The proposed substation site is directly north of the main London–Norwich railway line, where electromagnetic interference, subsidence from cable trenching, and restricted emergency access present operational and safety concerns for Network Rail.

The site is also located approximately 4 km from Tibenham Airfield, an active glider base, and thus falls inside the CAA CAP 168 ten-kilometre safeguarding consultation zone. The planned 20–25-metre-high gantries and lightning masts would disrupt glider flight paths and necessitate aviation-lighting mitigation.

Also, it may be of interest to you that the developer of Tasway Energy Park has publicly stated an intention to connect to the National Grid at or near Great Moulton. However, the East Pye Solar Targeted Consultation materials do not address this possibility.

Key Concerns:

1. Transparency and Due Process:

- Why is East Pye proposing a substation of this scale without clear backing or detailed input from the National Grid?
- You previously clarified that there has been no formal communication or agreement between National Grid and East Pye regarding this location. Is this still the case? The lack of detail regarding the National Grid is leaving the community deeply unsettled and we are concerned that East Pye's documents allude to an agreement between them and yourselves.

2. Suitability of Location:

- Would National Grid contemplate placing a substation of this scale in a rural area where the road infrastructure is insufficient?
- Is it acceptable for such infrastructure to be sited so close to homes in a historic farming community, referenced in the Domesday Book?

3. Environmental and Strategic Considerations:

- We understand National Grid takes a holistic view of environmental impacts when planning new substations. Can you confirm this remains the case, and how such considerations would be applied here?

4. Alignment with Local Policy:

- The South Norfolk plan explicitly states that the Great Moulton Plateau should not be industrialised due to its heritage and landscape value. We believe these proposals constitute industrialisation and urge National Grid to respect local policy and community sentiment.

Our Requests:

- Please clarify National Grid's current position regarding the East Pye proposal.
- If National Grid has not endorsed this location, when and how will East Pye be informed, and if appropriate, what steps will be taken to ensure a more suitable site is identified?
- Could we ask that National Grid engage directly with our community to address our concerns and ensure full transparency throughout this process.

We hope National Grid will act with sensitivity and uphold its commitment to environmental stewardship and community engagement.

We look forward to your response and to working together to protect the heritage and wellbeing of our village.

Thank you.

Yours sincerely,
[redacted]

We would Steering Group

Attached is a copy of the consultation document East Pye Solar - Targeted Consultation Document, a copy of the map, relevant photographs of the site and roads adjacent to site and drone footage of site 1B

From: [redacted]**@nationalgrid.com>**
Sent: Friday, February 20, 2026 8:30:51 AM
To: [redacted]
Cc: [redacted]**@nationalgrid.com>;** [redacted]
[redacted]**@nationalgrid.com>**
Subject: RE: [EXTERNAL] Urgent Concerns and Clarification Required: Proposed National Grid Substation at East Pye Solar Park

Dear [redacted]

Thank you for your recent email and patience. I have been liaising with the wider project team before coming back to you with the latest information.

Island Green's gated position is being determined by the independent National Energy Systems Operator and will be communicated to us in due course along with the customer. Once we know more, we will be in touch to explain next steps. I hope you can appreciate we are unable to share any further insight until this process is concluded and cannot comment on individual customer outcomes.

I appreciate you are also seeking some generic substation images. Substation designs are unique to their location and the volume of customers we are connecting so I don't feel this will help in terms of showing what a potential connection could look like. But please be assured we will keep the local community informed regarding any potential plans.

Best wishes

[redacted]

Appendix 2

Noise Impact Assessment Review - by Oakridge Environmental Services

Great Moulton Residents Group – Review of Noise Impact Assessment East Pye Solar – Planning Inspectorate Reference: EN0110014	OES26- N-GMRG-001/V2

OAKRIDGE
ENVIRONMENTAL SERVICES

Noise Impact Assessment Review

East Pye Solar

Solar PV station, erection of a battery energy storage facility (BESS), National Grid substation

and associated infrastructure

On behalf of

Block East Pye Solar and Great Moulton Parish Council

Great Moulton

Norfolk

Planning Inspectorate Reference: EN0110014

Document Control			
File Name	OES26- N-GMRG-001		
Version No.	V1	Date	27.7.26
	V2	Date	07.8.26
Prepared By	[redacted]		
Checked By			

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1. Introduction

1.1 Introduction

This report is prepared on behalf of Great Moulton Parish Council in support of refusal of the planning application EN0110014 for the erection of a battery energy storage facility (BESS) and a National Grid substation within the parish of Great Moulton, Norfolk. The BESS and National Grid substation will serve a proposed solar farm which is also part of the application. However, it is the BESS and substation that have the potential to cause significant adverse effects to the residents of Great Moulton. The grounds for refusal include consideration of potential noise impacts stated as follows:

This report is a technical review of the applicant's submitted Noise Impact Assessment and supporting information. It does not purport to provide a complete new operational noise assessment of the scheme.

Rather, it considers whether the submitted information is sufficiently detailed, transparent and robust to allow the decision-maker to conclude that unacceptable adverse noise effects would be avoided. Where the applicant's information is incomplete, uncertain or not capable of independent verification, this report identifies those limitations and the implications for decision-making.

1.2 Summary

The case is not that the BESS and National Grid substation development is inherently unacceptable in noise terms. Rather, the concern is that the submitted information does not provide sufficient information and therefore introduces a high level of uncertainty as to whether adverse noise effects would be avoided or capable of being mitigated effectively once the site becomes operational, particularly having regard to:

- BS 4142 assessment methodology, context and uncertainty;
- The very quiet rural night-time acoustic environment;
- Potential low-frequency and lack of information on tonal characteristics;
- Uncertainty over the final plant specification; and
- Limited information on modelling inputs and scale of uncertainty of the noise propagation model for a large collection of noise sources with a low frequency character

acoustic character, mitigation assumptions and receptor background conditions remain uncertain, the decision-maker cannot be confident that the proposed development would be acceptable in noise terms.

While it is acknowledged that grid-scale battery energy storage systems (BESS), substations and associated electrical infrastructure can often be made acceptable in noise terms, it is respectfully submitted that the current submission does not provide sufficient certainty to conclude that this particular development would not give rise to

adverse or significant adverse effects on residential amenity, particularly during the night-time period and in relation to low-frequency and/or tonal noise.

The BESS is considered in some detail because it appears to be one of the potentially dominant operational noise sources, but the same issues of specification uncertainty, source data, acoustic character, mitigation assumptions and receptor context are also relevant to the National Grid substation and other noisy operational elements of the scheme.

1.3 Documents examined

Report	Prepared by	Date
Environmental Statement Vol. 1: Chap.12 – Noise and Vibration	Stantec	March 2026
Environmental Statement Vol. 2: Figure 12.1 Sound and Meteorological Survey Location	Stantec	February 2026
Environmental Statement Vol. 2: Figure 12.2 Noise and Vibration Sensitive Receptors	Stantec	February 2026
Environmental Statement Vol. 3 Appendix 12.1 Baseline Sound Survey Report	Stantec	March 2026
Environmental Statement Vol. 3: Appendix 12.2 – Noise Modelling and Calculations	Stantec	March 2026
Statutory Nuisance Statement Revision 1	Stantec	March 2026

Table 1 - Reports examined

2. Stantec Environmental Statement – Noise and Vibration

2.1 Baseline Sound Survey

The Environmental Statement on noise and vibration prepared by Stantec provides a baseline noise survey taking data from 51 noise monitoring positions that effectively covers the number of noise-sensitive receptors across this vast site. The survey durations were 6 to 8 days at each location and provide a good representative snapshot of the ambient and background sound levels in terms of broadband A-weighted $L_{eq,T}$, $L_{90,T}$ and $L_{F\,Max,T}$.

However, the report states that as this was an unattended survey, it is not possible to accurately comment on the dominant noise sources or specific noise events during the entire survey period. Comments were given on the on-site environmental sound climate at the time of set-up and collection and these included "on-site sound levels dominated by vehicular movements on the surrounding road network" for the majority of the survey positions and in all 4 of the survey positions reported for Parcel Group 1 which covers Great Moulton.

These are MP41 to MP44. Since no octave or third-octave band data have been published, it is not possible to determine whether road traffic noise is the dominant source of noise in this isolated rural area. The presence of road traffic noise can be indicated by comparing the spectral content of the measured levels with the typical road traffic spectrum set out in BS EN 1793-3 and referenced in BS 8233:2014. This is a concern, as the subsequent noise model and specific sound level assessments rely somewhat on the masking effect of road traffic sound. The DEFRA-funded strategic noise maps produced by Extrium (http://www.extrium.co.uk/noiseviewer.html) shows that the A140 to the east of Great Moulton does not appear to have a significant noise impact on the area. (See ***Figure 1*** to ***Figure 3***).

These strategic road traffic noise maps are not a substitute for receptor-specific background sound measurements, but they provide useful context when considering whether road traffic is likely to provide a consistent masking influence at Great Moulton, particularly during the night-time period.

The submitted ES Chapter 12 identifies MP41, MP42 and MP43 as the associated measurement positions for residential receptors in and around Great Moulton, including dwellings on Broadgate Lane and Station Road. The ES also identifies these receptors as high sensitivity receptors.

This reinforces the need for particular caution when applying generic assumptions about the residual acoustic environment at Great Moulton, because the acceptability of the operational assessment depends on whether the measured baseline is genuinely representative of the receptor locations and whether the assumed masking environment is present during the most noise-sensitive periods.

The principal concern at this time is not whether the background sound levels reported by the applicant are numerically correct at the monitoring locations. Rather, it is whether those measurements and the acoustic conclusions drawn from them are representative of the nearest and most affected residential receptors.

The submitted assessment relies upon assumptions regarding the residual acoustic environment, including the degree to which existing background sounds like road traffic, would mask operational noise from the BESS, National Grid substation and associated infrastructure. If those assumptions are not representative of the receptor locations, the conclusions of the BS 4142 assessment may be materially affected. This uncertainty could then be further exacerbated by tonal and character assumptions informing the selected Noise Rating level on which judgement is made as to whether or not there are significant impacts.



Figure 1- Lden Road traffic noise levels from Extrium

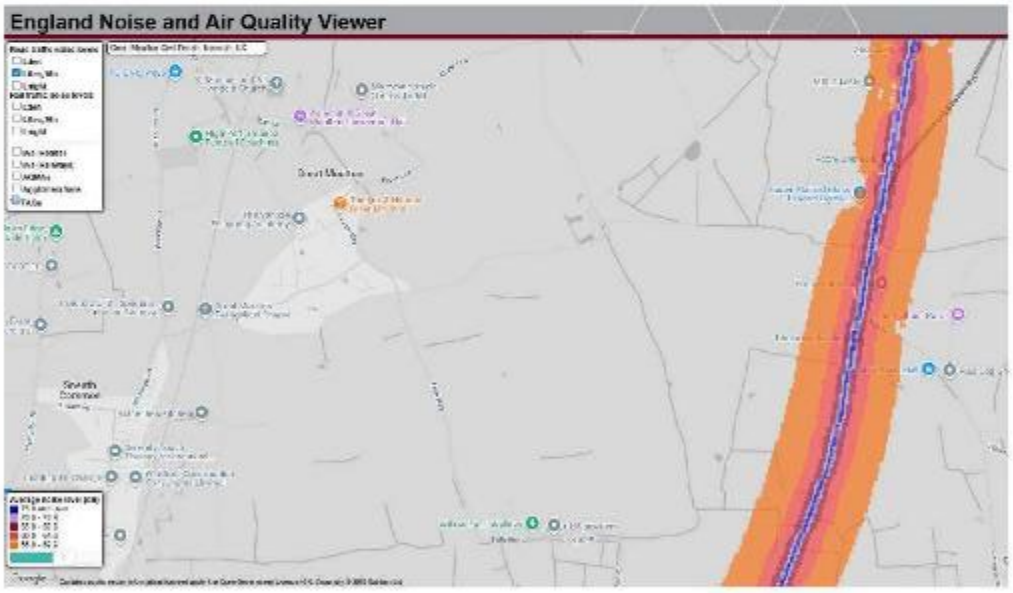


Figure 2 LAeq,16hrs road traffic noise levels (daytime) from Extrium

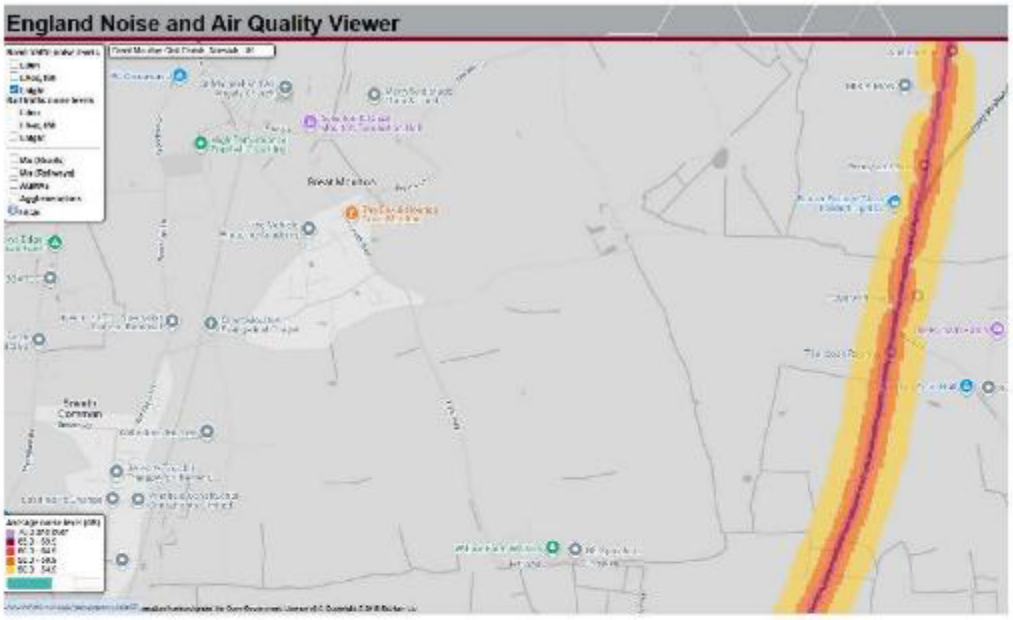


Figure 3 Lnight road traffic noise levels from Extrium

2.2 Noise modelling and calculations

2.2.1 Assessment Assumptions and Limitations

The authors have stated that:

> *"Detailed plant specifications are not available at this stage, and potential noise emissions based on example equipment data have been assessed using an example plant layout which has been based on achieving the Outline Operational Environmental Management Plan….. noise requirements "*

The ES Chapter 12 states that the operational assessment has been informed by scheme information but also identifies assessment assumptions and limitations. The submitted information therefore appears to rely on an indicative plant layout and example plant data at this stage.

This is important because the final number, type, layout and operating regime of BESS containers, inverters, transformers and associated cooling plant may materially affect both the overall rating level and the acoustic character of the installation. In a BS 4142 assessment, such uncertainty is not simply a matter of calculation refinement; it affects the confidence that can be placed on the predicted outcome and on the conclusion that no significant effect is anticipated.

This introduces a level of uncertainty that is difficult to evaluate. The authors have prudently used a conservative approach assuming plant operates simultaneously, continuously, and at maximum output. However, there is no indication as to the number of battery storage units to be installed and the authors have made an exception with the BESS by assuming reduced sound levels associated with lower fan duty as a method of mitigation. It is not clear from the report how many units have been used in the calculation of noise from the BESS.

The calculation includes the provision of a 4m high acoustic barrier in areas around the BESS with a surface density of 15kg/m2 and an absorptive side facing the battery storage containers.

The inclusion of a 4 m high acoustic barrier as part of the modelled mitigation indicates that operational noise requires material mitigation in order to achieve the assessment conclusions. The effectiveness of that mitigation is therefore central to the reliability of the assessment and should be supported by clear assumptions regarding barrier location, height, surface density, absorption, source heights, frequency performance and long-term deliverability.

Consideration could be given to an earth bund around the BESS and substation site that provides sound and visual screening.

The need for a 4 m high acoustic barrier as embedded or additional mitigation is itself a material indicator that operational plant noise is capable of being significant if not carefully controlled.

The ES Chapter 12 includes operational plant noise assessment tables and residual operational assessment tables, but the robustness of those conclusions depends on the performance assumptions for the barrier, the assumed source heights, source directivity, plant layout and the frequency content of the source data. If any of these assumptions change at detailed design stage, the modelled screening performance and receptor levels may also change.

The sound source data have only been given in broadband A-weighted sound power levels and thus, if the noise model has been calculated in accordance with ISO 9613-2, has used the 500 Hz octave-band frequency to estimate sound attenuation. However, there are concerns regarding low-frequency sound from the BESS, inverters and substations, which will not be addressed by A-weighted broadband levels, and attenuation over distance in the lower frequencies such as 50 Hz and 100 Hz is less than that in the mid to high frequencies.

The ES Chapter 12 reports operational sound power data in tabulated form and concludes that residual effects would not be significant. However, without the supporting octave-band or one-third-octave source data, it is not possible to independently test whether the model has appropriately accounted for low-

frequency propagation, barrier performance at low frequencies or the potential prominence of transformer hum and cooling plant noise at night. This is particularly relevant as the development includes both BESS infrastructure, inverters and a National Grid substation, as these source types can include tonal, low-frequency or otherwise distinctive acoustic components.

The practical implication for nearby residents is that the likely audibility, character and intrusiveness of operational noise cannot be confidently determined from the information currently provided.

This is particularly important at night, when residual sound levels in rural areas may be low and when tonal or low-frequency components may be more noticeable than would be suggested by broadband A-weighted levels alone.

The absence of transparent source spectra and detailed modelling inputs therefore prevents a robust assessment of whether operational noise would be inconspicuous, clearly audible, adverse, or potentially significant at the most affected dwellings.

When considering background noise levels and statements in the applicants noise reports suggesting reliance on traffic noise to provide masking of operational sound, the accuracy and consideration of spectral make-up of the ambient noise is a key consideration to ensure any consideration of impact is as accurate as possible.

2.2.2 Operational Assessment of Low Frequency Noise

The authors of the noise model have provided a calculated 1/3 octave band façade incident external sound level from estimated noise from both the National Grid Substation and the BESS site.

However, it is not clear how the one-third-octave-band sound power levels from the plant have been determined. For example, manufacturer's data or measurements taken from existing sites. Although the authors state that they have used manufacturers' sound power levels of similar plant, this is not documented and only the A-weighted sound power levels are reported.

Without this information it is not possible to check the validity of the estimated sound levels.

The ES Chapter 12 includes operational plant assessment outputs for high sensitivity residential receptors and identifies residual operational effects as not significant. However, the ability to reach that conclusion is dependent on the accuracy of the assumed source spectra and propagation model. If the underlying frequency data are not provided, the assessment cannot be independently checked against the low-frequency criteria or the tonal audibility method in BS 4142. This is a material limitation because a broadband A-weighted level can mask the presence of a pronounced low-frequency component which may be more noticeable inside dwellings, particularly during the night-time period.

This issue is particularly relevant to electrical infrastructure such as transformers and substations, where tonal or low-frequency components may form an important part of the perceived acoustic character. The assessment should therefore demonstrate not only compliance with broadband noise limits, but also that the frequency content and acoustic character of the predicted sound would not give rise to adverse perceptibility or disturbance at nearby dwellings.

It is also not clear how much absorption from the proposed noise barriers located around the BESS has been estimated in the model, but the effective absorption at low frequencies will be affected by the depth of the absorptive layer. This is due to the length of the soundwave, which is equal to the speed of sound in air (m/s) divided by the frequency of the sound (Hz). This can range from 13.7 m at 25 Hz to 2.1 m at 160 Hz. (See ***Table 2***.) The use of earth bunds, which have a wider footprint as mitigation, would address some of these concerns.

Frequency (Hz)	25	31.5	40	50	63	80	100	125	160
Wavelength (m)	13.7	10.9	8.6	6.9	5.4	4.3	3.4	2.7	2.1

Table 2 – Typical wavelength values (m) for low frequency 1/3 octave bands (Hz).

2.2.3 BS 4142 Acoustic Feature Rating Corrections

The authors have concluded that neither the BESS nor the National Grid Substation produce any tonal sound, despite stating:

> *"High voltage transformers can generate a 100Hz hum due to vibration of the transformer coil. The acoustic modelling exercise indicates that the specific sound level from the high voltage transformers, including the 100Hz tone, is unlikely to be distinguishable at the receptor as it will be masked by other broadband sound relating to the BESS inverters and BESS Containers."*

Annexe C of BS 4142:2014+A1:2019 provides a 1/3 octave band method for assessing the audibility of tones. If the 1/3 octave band data used in the noise model were provided, this would prove/disprove the likelihood of tones and the value to be added to the Rating Level.

In the absence of disclosed one-third-octave data, it is not possible to confirm whether the transformer 100 Hz component would be sufficiently masked at the receptor, or whether it would remain perceptible during periods of low residual sound.

This is important because the assessment appears to rely on the assumption that broadband BESS-related sound will mask any transformer tone. That assumption may not be robust where the BESS cooling plant is operating at reduced night-time duty, or where weather, plant loading or operating mode changes the relative contribution of the transformer and cooling plant sources.

The authors also state:

> *"BESS are designed without any noticeable acoustic features due to the broadband nature of the sound. Noise from the proposed development is not likely to be readily distinctive against the residual sound environment. Therefore, no rating penalty has been applied for 'Other Sound Characteristics'."*

Section 11 of BS 4142:2014+A1:2019 states:

> *"The character and level of the residual sound compared to the character and level of the specific sound. Consider whether it would be beneficial to compare the frequency spectrum and temporal variation of the specific sound with that of the ambient or residual sound to assess the degree to which the specific sound source is likely to be distinguishable and will represent an incongruous sound by comparison to the acoustic environment that would occur in the absence of the specific sound. Any sound parameters, sampling periods and averaging time periods used to undertake character comparisons should reflect the way in which sound of an industrial and/or commercial nature is likely to be perceived and how people react to it."*

If one-third-octave-band or at least one-octave-band data were available from the baseline sound survey, this could be used to show whether the specific sound level is in fact indistinguishable against the residual background. The authors may be relying on the presence of road traffic noise, particularly in the 80 Hz to 160 Hz one-third-octave bands. However, it has not been demonstrated that road traffic is the dominant noise source in all areas, particularly in Great Moulton where the BESS and National Grid substation are proposed. Road traffic in this rural area is sporadic and there are long periods, particularly at night, when there is very little traffic.

The same concern applies to any reliance on road traffic or general residual sound to mask tonal or low-frequency components from the proposed plant. Masking cannot be assumed from short attended observations or from broadband A-weighted sound levels alone. It should be demonstrated using representative night-time frequency data for the residual sound environment and the predicted plant noise. Without that comparison, there remains uncertainty as to whether tonal components, particularly around 100 Hz, would be perceptible at residential receptors during quiet night-time periods.

In the absence of this information, it is not possible to determine whether the operational sound would be appropriately characterised as acoustically neutral, or whether rating penalties for tonality, intermittency, distinctiveness or other acoustic features may be required. T

his is a material issue because even relatively small changes to the rating level may alter the BS 4142 outcome, particularly where representative night-time background sound levels are low.

2.3 Implications for residential receptors

The implications for residents are not that unacceptable noise effects have been conclusively demonstrated at this stage. Rather, the submitted information does not allow those effects to be confidently ruled out. This distinction is important.

Where a proposed development includes substantial operational electrical infrastructure in a quiet rural environment, the assessment should provide sufficient information to demonstrate that noise from the BESS, National Grid substation, transformers, inverters, cooling plant and associated infrastructure would not result in unacceptable effects at the nearest and most affected dwellings.

The current assessment does not provide sufficient transparency regarding final plant specification, source spectra, modelling assumptions, mitigation performance or the representativeness of receptor background sound levels.

As a result, it is not possible to determine with confidence whether operational noise would be insignificant, acceptable subject to mitigation, or potentially adverse at individual residential receptors. This uncertainty is itself material to the planning decision, because the decision-maker must be satisfied that significant adverse effects on health and quality of life would be avoided before consent is granted.

3. Conclusion

Paragraph 4.43 of the Statutory Nuisance Statement states:

> *"A noise assessment has been undertaken and is reported in ES Volume 1, Chapter 12 - Noise and Vibration [EN0110014/APP/6.1.12]. This chapter focuses on an assessment of the likely significant effects on noise and vibration as a result of the Scheme. The noise and vibration assessment concludes that no significant noise or vibration effects are anticipated."*

However, it is not possible to validate this assessment due to the degree of uncertainty in the submitted assessment. This is due to:

- The lack of detail in plant selection, both for the BESS and National Grid substation;
- Operational assumptions such as reduced fan duty at night and the suggestion of acoustic enclosures without details/specifications;
- Lack of spectral data for both the assumed plant noise and the residual/background sound survey;
- Lack of detail regarding the acoustic barrier performance and the propagation of low frequency noise (<160Hz) over distance;
- Insufficient evidence supporting the decision not to add a feature correction to the specific sound level.

Taken together, the available information does not demonstrate that the development would avoid adverse or significant adverse noise impacts with sufficient certainty. The conclusions of the submitted assessment are therefore not robust, as they are dependent on assumptions which have not been substantiated by project-specific data. Accordingly, the Council's position remains that insufficient information has been provided to demonstrate that acceptable noise levels can be achieved and maintained. The absence of confirmed plant specification, lack of frequency-based source and survey data and limited transparency of the modelling approach collectively introduce a substantial level of uncertainty into the assessment. This is not a minor or isolated uncertainty, but one which has the potential to materially alter the outcome of the BS 4142 assessment.

Relatively small changes in the underlying assumptions — including acoustic character corrections and spectral content — may reasonably result in rating levels within a range indicative of adverse or significant adverse impact. In the context of an exceptionally quiet rural environment, such outcomes may be particularly difficult to mitigate effectively through design or operational controls once the site is constructed.

The ES Chapter 12 records that operational plant noise has been assessed against defined LOAEL and SOAEL thresholds and concludes that residual operational effects would not be significant. However, those conclusions are only as reliable as the assumptions on which they are based. The present review identifies several areas where the submitted information does not allow independent verification of the assessment outcome, including the absence of confirmed plant specification, incomplete disclosure of source spectral data, uncertainty over acoustic feature corrections, limited transparency over barrier performance, and uncertainty regarding the representativeness of the residual acoustic environment at Great Moulton.

If the applicant subsequently provides confirmed plant specifications, source sound power spectra, detailed modelling assumptions, mitigation specifications and representative receptor-based background data, it may then be possible to undertake a more definitive assessment of likely operational impacts. Until that information is available, any attempt to quantify the precise degree of impact at individual dwellings would be subject to significant uncertainty.

This raises fundamental concerns regarding reliance on pre-commencement or pre-operational planning conditions to resolve these issues at a later stage. Paragraph 198 of the National Planning Policy Framework requires planning decisions to ensure that development avoids significant adverse impacts on health and quality of life arising from noise.

Where the submitted information does not allow the decision-maker to confidently conclude that unacceptable noise impacts would be avoided, the appropriate conclusion is not that the matter can simply be deferred, but that the assessment is presently insufficient. The associated Planning Practice Guidance sets out the concept of the Significant Observed Adverse Effect Level (SOAEL), above which adverse effects should be avoided. The potential for adverse or significant adverse noise effects cannot be ruled out with the degree of confidence required.

On the information currently submitted, the proposed development has not demonstrated compliance with Policy ENV2 or national planning policy in relation to noise.

On the information currently submitted, the applicant has not demonstrated with sufficient confidence that adverse or significant adverse noise effects would be avoided, particularly at night and in relation to low-frequency and/or tonal operational plant noise.

Noise is a material consideration in the national Planning Framework. Refusal of the application is therefore justified unless and until the applicant provides sufficient project-specific evidence to demonstrate that the BESS, National Grid substation, Inverters and associated noisy infrastructure can operate without causing unacceptable noise impacts at affected residential receptors.

Appendix 3

Article, regarding the issue of Noise associated with large NSIP developments. [redacted] is managing director at RSK Acoustics – 2 April 2025 -

The sound of solar: Noise in a sustainable world | New Civil Engineer

The noise associated with solar farms, particularly large developments, can be significant and compounded by their rural locations. In these settings, any additional noise can be noticeable and can have an impact on people using and living in the area, as well as local wildlife.

It is often assumed that solar farms don't make any noise, that they are silent generators of clean energy. While the panels themselves make no noise, the infrastructure surrounding solar farms that enables energy to reach our homes does create residual noise. It is important to design for this noise at the start of the process to avoid surprise mitigation further down the project's development that could increase costs and delay planning approvals.

When considered at the scale of solar farm installations that we see in the UK, the electrical infrastructure that enables these large-scale connections to the grid can have an impact on existing noise environments if noise is ignored. Typically developed in rural locations where there is sufficient land to house solar photovoltaic (PV) panels, these naturally quieter environments can often mean that low-level noise emissions that would often go unnoticed in an urban environment have the potential to be disruptive. Managing this is regulated closely by planning policies to ensure any noise brought by the infrastructure is not harmful to wildlife or residents.

National policies such as the National Planning Policy Framework (NPPF) and the Noise Policy Statement for England (NPSE) both provide specific overarching requirements to protect residents and communities from noise associated with developments and promote its effective management for good health and quality of life. At a local level, individual councils and authorities will have their own policies, resulting in some national variation and making it crucial to understand what applies to a specific site. An understanding of acoustics is vital to delivering new projects in line with these regulations and for positive community outcomes. Dispelling myths around sound and solar means appropriately anticipating the impact of an installation and designing mitigation early on.

On a solar farm, it is the supporting infrastructure, such as battery storage, transformers and substations, that produces noise. The significance of that audible noise is relative to the existing environment and the plant chosen. Identifying the right products for the development and working closely with the manufacturers allow for greater control over potential noise. Engaging with the manufacturers at this stage also enables collaborative work on designing the plant for greater noise control and quieter operation when installed

Ambient sound levels typically fluctuate through the course of the day – it is usually quieter overnight than during the day – and vary by location. The bustle of a city will create much more noise than rural countryside. This means that a low-level sound generated by a battery energy storage system or transformer may not be noticeable during the day in the middle of a city, but in the countryside it would be. It is also important to bear in mind the cumulative effect of multiple plants and machines running together; it is unlikely that a solar farm will have a single source of noise.

When there is an understanding of these specific environmental factors, and their relationship with the infrastructure to be installed, it becomes possible to manage noise. To most effectively mitigate potential significant noise, incorporating actions into the design is vital. It means not only cost savings against implementing measures later on but also issues can be removed in their entirety.

Layout is particularly important on large sites where significant infrastructure is needed. It is possible to design in a way that is sympathetic to acoustics, moving sources away from receptors such as residents or wildlife or creating noise barriers with needed site structures. These intelligent designs make use of the natural noise-managing properties of terrain, structures and buildings. If this is considered at the design stage, buildings such as offices and substations that are an integral part of the site can be positioned in a way that they serve as these needed noise barriers.

Making these design elements as effective as possible comes down to accurate early estimations of source noise levels. Preparing models that simulate the acoustics of the site means that mitigation can be designed from the beginning. Like in many construction and engineering disciplines, it's always the case that action to eliminate will be taken before action to insulate. The accuracy of models and plans makes this possible. Engaging acoustic specialists early on enables mitigation to be optimised. Working on the early planning and design stages of the project also means that it is possible for cross-discipline collaboration, opening opportunities for solutions to be found together.

Ultimately, by incorporating acoustic considerations from the outset and integrating noise reduction strategies into the design, we not only align with regulations but also foster harmonious relationships with local communities and protect wildlife. Effective noise management is not an afterthought but a crucial element of sustainable solar farm development that ensures long-term success and minimal environmental impact.

[redacted] is managing director of RSK Acoustics, a specialist provider of acoustics consultancy services throughout the world. He has more than 20 years' experience delivering

acoustics solutions to the energy generation and transmission sector around the globe and is a Chartered Environmentalist and Member of the Institute of Acoustics.

APPENDIX 4 : East Pye Solar Application Documents Referenced

East Pye Solar – Planning Inspectorate Reference EN0110014

Scope and method. This appendix identifies East Pye Solar application documents that are expressly cited, named or clearly relied upon as source material in the objection. References have been normalised to the Applicant's official EN0110014/APP numbering. The "How referenced / relied upon" column preserves the shorthand or alias used in the objection where relevant. Official titles and numbering have been checked against East Pye Solar, Guide to the Application, APP/1.3 (Revision 1, March 2026).

A. Source Based Used

Issue	Source / factual anchor	Technical submission point
East Pye ES Chapter 4 and Grid Connection Statement	Scheme description, grid connection, National Grid Substation, Project Substations and retained infrastructure.	Used to define Site 1 as a grid infrastructure hub.
East Pye ES Chapter 5 and APP/7.20 Site Selection Assessment	Reasonable alternatives, design evolution, Option 4A/4B and siting zones.	Used to frame alternatives and Horlock critique.
East Pye ES Chapters 7-18 and appendices	Landscape, ecology, water, transport, noise, soils, ground conditions, EMF and other environmental matters.	Used to identify topic-specific control gaps.
NGET Relevant Representation and National Grid correspondence	Connection deliverability and National Grid role as recorded in the source draft.	Used to request a formal grid delivery statement.
Ofgem, 17 September 2026 press release and DESNZ/Ofgem April 2026 letter	BESS queue oversupply, Gate 2 context, proposed OTCF and battery surplus risks.	Used to strengthen proportionality and deliverability scrutiny.

Botley West EN010147 Secretary of State request	Recent comparator for further information on solar NSIP alternatives, grid, design and cumulative effects.	Used as persuasive context, not precedent.

Written Representations submitted in response to East Pye Solar
PINS Reference: EN0110014

Volume 1: Chapters 1 –7

Submitted by BEPS (Block East Pye Solar [redacted])

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Objection

East Pye Solar is the wrong project, at the wrong scale, in the wrong place

BEPS objects to East Pye Solar in its entirety. The objection is not to solar generation or to the transition to a low-carbon electricity system. It is to the proposition that this particular 500MW-scale, transmission-connected development, dispersed across approximately 1,200 hectares of solar fields and 54 square miles of South Norfolk, is necessary or proportionate when weighed against the exceptional and largely irreversible harm it would impose on the place in which it is proposed.

The starting point must be need. The Applicant presents East Pye as part of the national imperative for additional solar generation. That proposition is materially more complicated than the application suggests.

NESO's original December 2024 Clean Power 2030 Action Plan envisaged that 90% of solar capacity would be provided through smaller projects connected to the **distribution network,** [1] with only 10% connected at transmission level.

For the T7 East Anglia transmission region, the original solar allocation was only **900MW** for the relevant 2031–35 period. East Pye Solar and Island Green Power's other Norfolk NSIP, The Droves, would together exceed that amount without even taking into consideration the multiple other solar NSIPS proposed across East Anglia.

In April 2025, the separate transmission and distribution allocations were replaced with combined Tx+Dx regional capacity limits. The effect was to remove the previous constraint on the proportion of solar capacity that could be delivered through very large transmission projects.

That was not simply an abstract technical adjustment. The documentary material before BEPS records that Island Green Power was among a group of solar developers that wrote to the Secretary of State on 3 December 2024 seeking changes to the regional connection methodology, including removal of the distinction between transmission and distribution projects. Extensive lobbying by Macquarie and private meetings with DESNZ followed, including the detailed discussion of East Pye Solar as one of the projects that would not be required under NESO's existing methodology. Macquarie also proposed combining Dx+Tx capacity limits to enable their pipeline of projects to receive grid connections. DESNZ subsequently wrote to NESO on 7 April 2025, saying that it had decided to combine Tx+Dx regional capacity limits for 2031-5 due to the increased transmission-connected solar pipeline not being reflected adequately in NESO's earlier assumptions.

BEPS does not ask the Examining Authority to infer impropriety merely from the existence of industry engagement. But where the promoter of this DCO was among those seeking a policy change that subsequently improved the position of large transmission-connected projects, and the Secretary of State who heads the Department responsible for that intervention will ultimately determine this application, the sequence gives rise to a serious **appearance-of-bias**

[1] 'The distribution network will play an important role in the deployment of renewable generation, with 29% of onshore wind and 90% of solar capacities connected to the distribution network in our pathways.' (NESO, Clean Power 2030, p. 27.)

and procedural fairness issue which warrants transparent examination. More fundamentally, it undermines any attempt to treat the revised Gate 2 allocation as independent proof that East Pye itself is regionally necessary.

The DESNZ policy change appears to have accommodated the existing transmission solar pipeline rather than demonstrated that the original system assessment had underestimated consumer need. A large queue of transmission projects is evidence of developer interest; it is not, by itself, evidence that all of that capacity is needed, that it is needed in East Anglia, or that transmission-scale solar represents the most efficient or least harmful means of meeting national solar objectives.

There is also a wider public-interest question. The benefits of a transmission-connected NSIP should not be expressed as though its electricity will preferentially 'power local homes'. Electricity exported at transmission level enters the wider electricity market. Statements that a project could power the 'equivalent' of a particular number of homes describe generation volume at maximum generating capacity; they do not identify the ultimate purchaser of that electricity or establish a direct benefit to the communities hosting the infrastructure. The commercial reality may include substantial corporate offtake. Cleve Hill Solar Park provides a clear example: Tesco has contracted for **65% of its generation** under a 15-year corporate power purchase agreement. Many of these vast NSIP solar plants will go on to power data centres – which will bring further development pressure and environmental degradation.

BEPS therefore submits that the Examination must distinguish between a general national need for renewable electricity (predominantly on the distribution network) and the alleged specific need for **East Pye Solar at this scale, in this transmission region and in this location**. The former does not automatically establish the latter.

This distinction matters because the environmental price of East Pye is extraordinary.

This is not development on a degraded industrial site. It is proposed across an ancient, settled and intensely interconnected South Norfolk landscape: productive arable farmland; medieval churches and historic timber-framed farmsteads; ancient hedges, woodland and veteran trees; nationally important bat habitat; chalk-stream catchments; historic sunken lanes lined with vanishingly rare assemblages of botany, historic commons and greens; conservation area rural settlements; fragile private water supplies; cherished public rights of way; and landscapes whose cultural and ecological structures have developed together over thousands of years.

The Applicant's own evidence confirms much of that sensitivity. Its bat surveys identify a nationally important assemblage. Its archaeological work reveals extensive evidence of prolonged human occupation. Independent heritage assessment identifies less-than-substantial harm from the principal built development to 36 designated heritage assets and adverse effects upon 41 designated heritage assets overall, compared with the substantially narrower harm identified by the Applicant (two). Statutory consultees have raised unresolved concerns about ecology, water, archaeology, transport, landscape and infrastructure. The Scheme requires extensive road intervention, cable corridors, substations, BESS infrastructure, fencing, access tracks, security measures and planting designed not to preserve or enhance the existing landscape but to conceal the industrial infrastructure inserted into it – some on a permanent basis.

Our central objection is that East Pye does not seek to fit respectfully within this landscape. It requires the landscape to be **re-engineered around the project**. Open fields become power-

generation compounds. Historic views are screened rather than preserved. Hedgerows become infrastructure boundaries and crossing points. Rural lanes become construction routes. Productive soils become the platform for a 60-year industrial use. Quiet approaches to churches and villages become settings for tracker arrays, substations and associated infrastructure. Ecological connectivity is expected to adapt around fencing, cabling, roads and repeated construction disturbance. New planting is then presented as enhancement even where its function is to screen development that should not have been placed within that historic open setting in the first place.

BEPS strongly rejects that approach to environmental planning. This approach sits uneasily with the NSIP good-design principles in EN-1, which require infrastructure to be designed as an integral part of the landscape and place within which it sits, with adverse environmental effects avoided or reduced through good design rather than merely concealed after the event. Good design is not achieved by first imposing the maximum engineering footprint and then using buffers, screening belts and later mitigation to make the consequences less visible. BEPS submits that East Pye represents mitigation-led concealment of harm, not the genuinely integrated, place-responsive and environmentally sensitive design expected of an NSIP.

This landscape is not empty space awaiting a nationally significant use. It is already **nature-dense, history-dense and community-dense**. Its value lies precisely in the accumulated relationships between farmland, water, wildlife, historic settlement, buildings, lanes, woods and the people who live within it. Those relationships cannot be recreated by biodiversity units, landscape screening, later management plans or the promise that the Scheme may ultimately be removed after sixty years. Some infrastructure will remain in perpetuity, as will the new screening planting which will permanently alter the wide-open spaces and views across our landscape on which our specific current ecology depends. The issue for the Examination is whether the harm presented by this project, on this scale, in this location is outweighed by need.

The original NESO framework did not envisage this concentration of transmission-scale solar in East Anglia. The subsequent expansion of the available transmission envelope followed direct industry pressure – including from Macquarie specifically about East Pye Solar – and accommodated a pipeline that already exceeded the earlier transmission assumptions. That substantially weakens the proposition that this particular Scheme represents an unavoidable national necessity.

Against that weakened needs case stand extensive and interacting harms to landscape, ecology, cultural heritage, agriculture, water, tranquillity, transport and community life.

BEPS submits that those harms are not incidental costs of an otherwise appropriate project. They are evidence that the Scheme is fundamentally misplaced. The planning system should require renewable infrastructure to respect and work with the places in which it is located. East Pye instead asks South Norfolk to be reshaped to accommodate it. The result would be the progressive industrialisation of a cherished and still remarkably intact area of already ‘nature dense’ ancient countryside for a ‘temporary’ project whose specific regional necessity has not been demonstrated independently of a connections framework altered to accommodate the transmission pipeline.

BEPS therefore asks the Examining Authority to reject the proposition that national support for solar generation is sufficient to justify East Pye. It is not. The proper question is whether the benefits properly attributable to this Scheme justify its particular environmental effects and

whether its scale, location and configuration are acceptable under the applicable policy framework. On the evidence before the Examination, BEPS submits that the answer is no.

Preliminary Chapter – CPO and DCO

Part I – Purpose and legal framework

P.1 The purpose of this Preliminary Chapter

This Preliminary Chapter addresses the legal consequences of the objections developed in Chapters 1–20. It does not repeat the detailed evidence concerning need, alternatives, scheme definition, ecology, water, transport, heritage, soils, ground conditions, noise, EMF, major accidents, cumulative effects or decommissioning. Those matters are addressed in the substantive chapters of this Written Representation.

Its purpose is narrower and more fundamental. The Applicant seeks two exceptional statutory outcomes. First, it asks the Secretary of State to make a Development Consent Order authorising the Scheme and conferring extensive statutory powers for its construction, operation, maintenance, replacement and decommissioning. Secondly, it seeks compulsory powers over land and third-party interests, including permanent acquisition, acquisition of rights and restrictions, temporary possession and interference with existing rights.

Those powers cannot properly be considered in isolation from the evidential deficiencies identified elsewhere in this Written Representation. The question in this Preliminary Chapter is therefore not whether individual environmental effects are unacceptable; those matters are addressed in the substantive chapters. The question is whether, in light of the uncertainties and defects identified there, the Applicant has demonstrated a sufficiently defined, deliverable and legally controlled Scheme to justify the powers contained in the draft DCO and the compulsory acquisition of private interests.

That distinction is important. Chapters 1 and 5 address the claimed need for East Pye and the alternatives available. Chapter 4 demonstrates extensive uncertainty concerning the physical identity, severability, grid connection, BESS, National Grid infrastructure, cable network, construction arrangements, replacement and decommissioning of the Scheme. Chapters 8–18 identify important environmental controls that remain dependent upon later surveys, detailed design, management plans, licences, permits and approvals. The present chapter asks what follows from those findings when the Applicant seeks statutory authority to implement the Scheme and coercive powers over third-party property.

The central proposition is simple. Statutory powers should follow a demonstrated and sufficiently defined need for those powers. They should not be granted at maximum breadth first, leaving the Applicant to determine later which development will actually proceed, which land will actually be required, which environmental controls will ultimately apply and which powers will in practice be exercised.

P.2 The distinction between development consent, DCO powers and compulsory acquisition

Three separate questions arise and they should not be collapsed into a single planning balance.The first is whether East Pye Solar is acceptable in principle under the relevant statutory and policy framework. That question engages the claimed need for renewable generation, alternatives, environmental effects, good design and the overall planning balance. It is addressed principally in Chapter 1 and the substantive environmental chapters.

The second is whether the draft DCO is an adequate legal instrument for the development that has actually been assessed. A decision that a solar project is acceptable in principle does not itself establish that every power contained in the draft Order is properly drawn. The DCO must define what is authorised, identify the geographical and physical limits of those powers and secure the controls upon which environmental acceptability depends.

Current Government guidance on DCO content emphasises that the draft Order is the legal instrument through which the authorised development and the powers required to implement it are established. It is not merely a description of the Applicant's present intentions. The Planning Inspectorate's drafting advice similarly requires the DCO itself to be prepared and submitted as part of the application; the Examination is therefore concerned with the legal powers actually sought, not only with the design the Applicant currently says it expects to construct.

This distinction is particularly important at East Pye. Chapter 4 identifies uncertainty concerning the relationship between solar and BESS, the severability of principal Works, the final National Grid connection solution, the number and configuration of major substations, cable-route flexibility, replacement and repowering, and what infrastructure would remain after decommissioning. The draft DCO must therefore be tested against the full range of development it legally permits, not merely against the Applicant's preferred present configuration.

The third question is different again: whether the Applicant has justified each compulsory power and each property interest sought. A conclusion that East Pye is desirable in planning terms would not automatically establish that permanent acquisition of a particular freehold is necessary. Nor would it establish that acquisition of a permanent right is justified where temporary possession would suffice, or that land should remain subject to compulsory powers where the Work requiring it may never be constructed.

That distinction is inherent in the Planning Act 2008. Section 122 does not provide that compulsory acquisition follows automatically from development consent. It imposes an additional statutory condition: there must be a compelling case in the public interest for the land to be acquired compulsorily.

Accordingly, even if the Examining Authority were ultimately to reject some of BEPS's substantive objections to the Scheme, two independent questions would remain.

First, does the Order precisely and effectively control the development which may lawfully be implemented?

Secondly, has the Applicant demonstrated that the particular compulsory acquisition powers sought are necessary and proportionate to that development?

BEPS submits that neither question can be answered simply by pointing to the national need for renewable energy.

P.3 The statutory threshold for compulsory acquisition

Section 122 of the Planning Act 2008 permits compulsory acquisition to be authorised only where the statutory purpose condition is satisfied and where there is 'a compelling case in the public interest for the land to be acquired compulsorily'. The latter is a substantive statutory condition, not a procedural formality. The Applicant must therefore do more than establish that East Pye would use land. It must justify the compulsory taking of the particular land or interest concerned.

The Government's Planning Act compulsory-acquisition guidance is directed specifically to DCO applications involving compulsory acquisition of land or rights over land. Its underlying approach is consistent with the general compulsory-purchase principle that compulsory powers require a compelling public-interest justification and should be pursued alongside reasonable attempts to secure land by agreement. For East Pye, the correct enquiry has several distinct elements.

First, there must be a sufficiently clear purpose for which the relevant land or right is required. It is difficult to demonstrate necessity where the corresponding Work remains optional, severable, capable of substantial relocation or dependent upon an unresolved connection solution.

Secondly, the interest sought must be no more extensive than the Scheme reasonably requires. The relevant question is not only whether a parcel is needed, but what interest in it is needed. Permanent freehold acquisition represents a materially greater interference with property rights than a lease, permanent right, restrictive covenant or temporary possession. The existence of statutory power to acquire the greater interest does not establish that the greater interest is necessary.

Thirdly, reasonable alternatives to compulsory acquisition must be properly considered. Those alternatives include not only different geographical parcels but, where relevant, less intrusive forms of land control.

Fourthly, the interference must be proportionate to the public purpose relied upon. That requires the strength and certainty of the public benefit to be weighed against the nature and extent of the private interference. The distinction matters particularly where a project is presented as temporary but the property interest sought is permanent.

Fifthly, the Applicant should be able to demonstrate that there is a reasonable prospect of the Scheme for which the land is sought actually proceeding. Compulsory powers should not be granted merely to preserve commercial optionality over land which may prove unnecessary if a BESS, substation, cable route, access arrangement or grid solution does not proceed.

These considerations are especially important here because Chapter 4 identifies extensive uncertainty over which parts of the authorised development are essential and which may be omitted, delayed or delivered differently. Chapter 11 identifies unresolved access and construction-deliverability matters; Chapter 8 identifies unresolved ecological and protected-species issues; Chapters 9 and 16 identify unresolved water, groundwater and ground-condition controls; and Chapter 15 identifies potentially long-lasting consequences for agricultural land and restoration.

The compulsory-acquisition case cannot be insulated from those uncertainties. If an essential Work is not presently demonstrated to be deliverable, the case for permanently taking the land required solely for that Work is correspondingly weakened. If the final configuration is not settled, the Applicant must demonstrate why the entire area and the full interest sought are nevertheless necessary.

The statutory sequence is therefore important: the Applicant must identify the development that is capable of proceeding; identify the land genuinely required for it; identify the minimum interest necessary to secure that land; and only then demonstrate why compulsory acquisition of that interest is justified by a compelling case in the public interest.

It would reverse section 122 to grant the widest powers now and allow necessity to be determined later through detailed design, commercial negotiation or implementation choices.

P.4 The DCO must authorise the Scheme assessed and secure the mitigation relied upon

The same discipline applies to the draft DCO itself. A DCO is not merely permission for the general concept of a solar farm. It defines the development which may legally be carried out and the powers by which that development may be implemented. The Order must therefore correspond with the Scheme assessed in the Environmental Statement and must secure those design limits and mitigation measures necessary to support the Applicant's conclusions.

Government guidance treats DCO control documents as instruments intended to provide specific and detailed practical controls over the proposed development. The 2024 pre-application guidance expressly describes control documents named within DCO Requirements as documents providing such controls and expects mature outline control documents to accompany the application. That approach is inconsistent with using outline documents merely as placeholders for environmental solutions yet to be worked out after consent.

Five principles follow.

First, the authorised development must be defined with sufficient certainty.

Chapter 4 demonstrates why this is a material issue at East Pye. The Scheme retains substantial flexibility concerning the solar/BESS relationship, BESS connection status, principal substations, the National Grid connection solution, cable routing, associated development, construction arrangements, replacement and decommissioning. The DCO must establish the boundaries of that flexibility. It cannot leave open such a broad range of implementation outcomes that it becomes uncertain which development has actually been assessed.

Secondly, the authorised development must remain within the environmental envelope assessed.

The Rochdale Envelope permits legitimate design flexibility where the parameters and reasonable worst case are properly defined. It does not permit the identity or essential environmental consequences of the project to be settled later. Chapter 2 identifies methodological concerns about whether a coherent whole-project worst case has been assessed; Chapter 4 develops that objection in relation to the actual design envelope.

The Order should therefore contain effective limits ensuring that subsequent detailed design cannot produce a materially different environmental outcome from that examined.

Thirdly, mitigation relied upon in the Environmental Statement must be legally secured.

This is particularly important because the substantive chapters repeatedly identify conclusions of limited or non-significant effect which depend upon measures not yet finally designed. Chapter 8 identifies extensive reliance on the Outline LEMP, later protected-species measures, future lighting design, CEMPs and later licensing. Chapter 11 identifies dependence on later construction traffic arrangements and highway controls. Chapter 15 identifies future soil-management and restoration controls. Chapter 16 identifies deferred intrusive investigations, Foundation Works Risk Assessments and HDD hydrogeological assessment.

Where the Applicant's significance conclusion assumes that a measure will occur, that measure cannot remain merely aspirational. A mitigation measure that may subsequently be omitted because it is considered impracticable, modified through a loosely worded final plan or displaced through later detailed design is not equivalent to secured mitigation.

Fourthly, later maintenance, replacement and repowering must remain within the assessed envelope.

This is especially important because Chapter 4 records that the Scheme contemplates complete replacement of the solar panels and repeated replacement of the BESS during the operational period. Those are foreseeable construction-like events involving new equipment, traffic, waste, ecological disturbance, noise and potentially different technology.

A broadly drafted power to "maintain" must not become a mechanism through which a materially different generating or storage project can be installed without further environmental assessment. The Order must distinguish ordinary maintenance from major replacement and from repowering, and it must prevent later technology or capacity changes from producing materially new or different effects.

Fifthly, material post-consent decisions must be subject to enforceable controls.

The application relies extensively upon later detailed design and discharge of Requirements. Some post-consent refinement is inevitable and legitimate. But there is a fundamental distinction between deciding how an already acceptable mitigation measure will be implemented and deciding after consent whether an environmentally acceptable solution exists at all.

That distinction is particularly important at East Pye because the substantive chapters identify unresolved matters concerning access, drainage, protected species, groundwater, foundations, archaeology, operational noise, BESS safety, soil restoration and other matters that go directly to environmental acceptability.

The DCO must therefore ensure that later approvals cannot be used to relax the environmental case examined, transfer harm from one receptor to another or substitute materially different mitigation without appropriate scrutiny.

These principles are not an attempt by BEPS to eliminate legitimate detailed-design flexibility. They are the minimum controls necessary if development consent is to operate on the basis of the Environmental Statement before the Examination.

The Applicant must ultimately be able to demonstrate a clear chain:

assessed effect → relied-upon mitigation → binding DCO mechanism → approval and consultation procedure → monitoring → remedial action → enforcement.

Where that chain is absent, the Environmental Statement's conclusion and the legal control of the authorised development become disconnected. That concern is not theoretical at East Pye. The Planning Inspectorate's own post-acceptance advice has already raised questions concerning the scope of preliminary works, the definitions governing commencement and maintenance, the precision of design parameters and the use of vague qualifiers in documents intended to control the development. The detailed DCO hearing issues identified by BEPS reflect precisely the same problem.

The proper starting position for the remainder of this Preliminary Chapter is therefore that the DCO must authorise no more than the development actually assessed, while securing every measure necessary to keep the development within that assessed case. Where the Applicant cannot demonstrate that correspondence, greater drafting flexibility is not the answer. The power must be narrowed, the control strengthened or, where the uncertainty concerns the acceptability of the development itself, the matter must be resolved before consent is granted.

Part II – Is there a sufficiently defined and deliverable Scheme to which the powers can attach?

P.5 The DCO powers attach to a Scheme whose final form remains materially uncertain

The draft DCO does not attach to a single, fully settled implementation case. Chapter 4 identifies material uncertainty over the relationship between the solar and BESS elements, whether principal Works are mandatory or severable, the final National Grid connection solution, the extent of cable-routing flexibility, the possibility of partial build-out and the sequencing of construction.

That uncertainty is not confined to secondary detail. Norfolk County Council’s LLFA has already identified that supporting infrastructure such as trenching, swales, drainage, services, access,

security measures and private-track improvements is grouped under generic associated-development descriptions rather than clearly allocated to individual Work Nos. It also records inconsistent use of the term “associated development” and uncertainty over what the Applicant means by flexibility in the “arrangement” of major components. Those are matters capable of affecting land take, environmental effects and the scope of statutory powers.

The same problem arises at the grid interface. The Applicant’s own material records that discussions with National Grid remain ongoing concerning the configuration and layout of the proposed National Grid substation and the associated overhead-line reconfiguration, with illustrative material capable of further revision through micrositing and orientation. Chapter 4 also identifies uncertainty over whether Works Nos. 4 and 5 are indispensable components of the Scheme, whether they could be constructed but not used, and what would occur if NGET adopted a different final connection solution.

Construction is similarly not a single fixed operation. The Applicant anticipates a 24-month programme but acknowledges that the programme may vary, while the application does not consistently provide scheme-wide maxima for simultaneous work fronts, compound area, piling activity, haul-road length, dewatering or other construction parameters. That uncertainty matters where different sequencing choices may change the duration, location and cumulative intensity of disturbance and the land required at any particular time.

These matters are analysed in detail in Chapter 4. Their relevance here is narrower: compulsory and statutory powers should not be granted more widely than is necessary for a development whose essential configuration and implementation pathway have been demonstrated.

The Applicant therefore needs to identify the minimum Scheme to which the claimed public benefits and compulsory powers attach, distinguish mandatory from optional Works and explain what powers remain necessary under every realistically permitted implementation scenario. A DCO should not operate as a portfolio of powers from which the undertaker may later select a materially different project.

P.6 Gate 1 BESS and the identity of the Scheme

The solar and storage components do not presently have equivalent connection status. The Applicant’s material records Gate 2 prioritisation for the solar component, whereas the BESS has only Gate 1 status. The Applicant has not demonstrated an equivalent Gate 2 position for the storage element. The DCO hearing material records the position more specifically: solar has Gate 2 Phase 2 prioritisation, whereas the BESS has Gate 1 status and no confirmed indicative connection date. The June 2026 Gate 2 Criteria Methodology materially sharpens that distinction. A project must satisfy both the Gate 2 Readiness Criteria and one Gate 2 Strategic Alignment criterion. For batteries, the potentially relevant routes are protection under Clause 2b, 3a or 3b, ordinary alignment with available CP2030 capacity, or Project Designation. Batteries are within the CP2030 framework and cannot rely upon the separate route for technologies outside CP2030.

On the presently available evidence, East Pye does not appear to satisfy Clause 3a or 3b because its DCO application post-dates the relevant planning cut-offs, and BEPS has identified no qualifying Clause 2b contract or regulatory approval and no Project Designation. Ordinary

CP2030 alignment is itself materially constrained by the existing T7 battery oversupply. The Applicant has therefore not demonstrated which Strategic Alignment route the BESS is expected to satisfy. That is directly relevant to the identity of the authorised development.

East Pye is promoted and environmentally assessed as a combined solar-and-storage Scheme. The BESS forms part of the project description, occupies land, requires associated electrical infrastructure and contributes to the Applicant's claimed flexibility and system benefits. Yet the draft DCO must be tested against what it legally permits if that storage component is delayed, reduced or never progresses beyond Gate 1.

The Applicant should therefore state unequivocally whether the BESS is a mandatory component of the authorised development, an independently severable Work or an optional component which may simply not be constructed. It should also explain whether the solar generating station may lawfully proceed and operate without it, whether the BESS may be constructed years later, and whether the associated electrical and land requirements change in those circumstances.

This is not an argument that Gate 1 status itself prevents development consent. The narrower point is that a component without the same connection certainty as the solar element cannot automatically justify permanent land and statutory powers on the assumption that the integrated Scheme will be delivered exactly as promoted.

That concern is reinforced by the Applicant's own analysis, which accepts that if the BESS is delayed, reduced, omitted or unable to obtain Gate 2 status, the Scheme may in practice operate principally as a 500 MW solar generator. The DCO therefore needs to identify the legal and land consequences of that scenario now.

No compulsory power should be justified by reference to a BESS or associated infrastructure whose need for the particular land interest has not been demonstrated under the implementation scenario actually capable of proceeding.

P.7 Partial implementation and unused statutory powers

The draft DCO must also address what happens where only part of the authorised development is implemented.

Chapter 4 identifies several realistic implementation scenarios: construction of only some solar Sites, solar without BESS, delayed or reduced BESS, omission of some project substations, a different National Grid solution, unused cable infrastructure and prolonged staged implementation. Those scenarios matter directly to compulsory acquisition because the need for land and rights is not necessarily constant across them.

If only some generating Sites proceed, it is not apparent why compulsory powers over land required solely for omitted Sites should continue. If the BESS does not proceed, land and rights required only for BESS infrastructure should not remain available indefinitely. If NGET adopts a materially different connection solution, the Applicant must explain whether land sought for Work No. 4 or related works remains necessary. If cable alignments are refined or particular

corridors become redundant, compulsory powers over unused corridor land should not simply survive because they appeared in the original Order.

The same applies to construction powers. A broad temporary-possession or access power should not remain capable of exercise over land once the Work for which that power was justified has been abandoned or definitively omitted.

The current application structure creates a risk that the DCO confers a wider reserve of land powers than any final version of the Scheme actually requires. That is inconsistent with the principle that compulsory acquisition must correspond to demonstrated need, not future optionality.

BEPS therefore submits that the DCO should include express expiry or release mechanisms. Where a principal Work is not commenced within a defined period, is formally omitted from the approved phasing plan or becomes unnecessary because another connection or design solution is adopted, the associated compulsory acquisition, rights and temporary-possession powers should cease to be exercisable except where separately justified.

Without such a mechanism, partial implementation could leave third-party land burdened by statutory powers for infrastructure that the undertaker no longer intends or is no longer able to construct.

P.8 The Applicant should provide a Scheme-to-powers schedule

The uncertainties identified above can be tested efficiently through a single Scheme-to-powers schedule. The Applicant should be required to provide, for every principal Work and material associated component, a definitive schedule identifying:

- whether the Work is mandatory, optional or severable;
- its present connection and deliverability status;
- the land required for it;
- the property interest or statutory power sought over that land;
- why that particular interest is necessary rather than a lesser one;
- the other Works upon which it depends;
- whether it may proceed independently;
- and whether the relevant land power survives if the Work is not implemented.

The schedule should include at least the solar generating Sites, BESS, project substations, National Grid substation, overhead-line works, cable corridors, access and highway works, habitat land and other land subject to permanent or temporary powers.

This would not create new information. It would force the Applicant to reconcile information currently dispersed across the draft DCO, Works Plans, Land Plans, Statement of Reasons, Book of Reference, Grid Connection material, Design Principles and Environmental Statement.

That reconciliation is necessary because the present application does not consistently identify which Works are indispensable to the Scheme and which merely preserve implementation options. Where the Applicant cannot identify a clear implementation purpose for a Work, it cannot simply assume that the corresponding compulsory power remains justified.

The Scheme-to-powers schedule should therefore be treated as a prerequisite to determining both the adequacy of the draft DCO and the section 122 compulsory-acquisition case.

Part III – Legal plans and certainty of the land and Works authorised

P.9 Inconsistent mapping and legal-plan reliability

The legal plans must provide a reliable geographical definition of the development and the land over which statutory powers are sought. At East Pye, that requirement is not presently satisfied consistently.

Chapter 4 records that the Works Plan and other application figures do not all use the same contemporary mapping baseline. Norfolk County Council's targeted-consultation response identified outdated mapping in relation to additional land areas 8 and 9 because the plans did not show or consider the operational Long Stratton Bypass. The LLFA concluded that the relevant assessment had not been undertaken using the latest available information and required further work.

The inconsistency persists across the application material. BEPS's review records that Figure 4.2 and the Works Plan use a pre-bypass base, while Figure 4.3 uses a more contemporary mapping base. The final Chapter 4 transport material may refer to the Long Stratton Bypass/Parker's Lane roundabout, yet the certified Works Plan still retains the older mapping.

That is not merely a cartographic defect. The Works Plan is one of the central legal instruments defining where numbered Works may be carried out. The bypass altered the physical and highway baseline, movement patterns, access relationships and drainage context. An obsolete map can obscure the relationship between authorised Works and existing highways, cable crossings, access points, receptors and land interests.

The problem is compounded by NCC's identification of inconsistencies between ES Chapter 4 and the Works Plans and by different depictions of infrastructure elsewhere in the application. Where different documents use different geography, the Examining Authority cannot safely assume that the land assessed, the land shown on the Works Plans and the land subject to compulsory powers are identical.

BEPS therefore asks for corrected Works Plans on an up-to-date base, together with confirmation that every environmental assessment and land document has been checked against the same geography. Where correction changes routeing, access, drainage, land take or receptor relationships, the consequential assessment must also be corrected.

The legal plans must define the Scheme that exists in the real landscape, not the landscape as it appeared before material infrastructure was constructed.

P.10 The Works Plans, Land Plans and Book of Reference must reconcile

The problem is not confined to the age of the base mapping. The DCO can safely confer land powers only if the documents defining the Works, plots and powers reconcile with one another.

Chapter 11 already demonstrates the problem in relation to highways. The Applicant is required to reconcile proposed highway interventions against the Order Limits, Works Plans, Land Plans, Streets Plan, Access and PRoW Plans, Book of Reference and draft DCO powers. A passing place, visibility splay, oversail area, vegetation-clearance zone or other intervention cannot be treated as secured if the necessary land or power is absent from the legal documents.

The same principle applies across the whole Scheme. For every numbered Work, the Applicant should be able to demonstrate a direct correspondence between:

- the geographical area shown on the Works Plan;
- the affected plot shown on the Land Plan;
- the ownership or interest recorded in the Book of Reference;
- the power sought in the draft DCO;
- and the development or right actually required.

NCC's LLFA has already identified inconsistencies between the works descriptions in ES Chapter 4 and references on the Works Plans and has called for reconciliation of the narrative description, Table 4.1, Works Plans, Land Plans, Design Principles, draft DCO and Commitments Register. That is strong evidence that reconciliation cannot presently be assumed.

The transport chapter gives a practical example of the form required. It calls for a consolidated schedule identifying for each access or intervention the Work No., Works Plan sheet, Land Plan plot, Streets Plan provision, Access and PRoW Plan reference, Book of Reference entry, landowner, DCO power and environmental assessment reference. That approach should be extended to every material Work involving compulsory acquisition or temporary possession.

Any mismatch matters because the DCO cannot lawfully make missing land appear after consent. Nor should the ExA grant compulsory powers over a plot where the Work said to justify those powers is not clearly and consistently shown.

BEPS therefore submits that a complete plan-and-land reconciliation exercise should be required before the compulsory-acquisition case is determined.

P.11 Plan hierarchy and precedence

The Applicant must also identify which document prevails where the application documents do not align. At present, the Scheme is described and controlled through multiple overlapping instruments: the Works Plans, Land Plans, Design Principles and Parameters, Environmental Statement figures, outline management plans, Schedule 1 works descriptions and other certified documents. NCC's evidence already demonstrates that those documents are not invariably consistent. That creates a legal-control problem.

If a Works Plan permits a wider area than the environmental figure assessed, which governs? If a Design Principle allows flexibility inconsistent with a more precise ES assumption, which prevails? If a final management plan departs from an indicative layout but remains said to be "substantially in accordance with" an outline document, does the plan or the original assessed

assumption control the development? If a Land Plan and Works Plan are inconsistent, which determines the geographical extent of the power?

The answer cannot depend upon the Applicant's intention after consent. The hierarchy must be apparent from the Order itself. This matters particularly because different documents perform different functions. A Land Plan identifies interests and plots; it does not necessarily define the precise physical extent of every Work. An ES figure may describe what was assessed but may not itself limit the statutory power. Design Principles may impose parameters but may also retain flexibility. Unless the Order identifies how those instruments interact, a narrow environmental assumption may be displaced by a broader legal power.

BEPS therefore asks the Applicant to provide an express document hierarchy and conflict provision identifying which certified document controls in the event of inconsistency. As a minimum, the hierarchy must ensure that no wider plan, parameter or later approval can override a more restrictive environmental limit or mitigation commitment relied upon in the ES.

The governing principle should be straightforward: where two certified documents conflict, the provision that affords the greater environmental protection and the narrower authorised envelope should prevail unless the DCO expressly provides otherwise following a justified and assessed change.

Without a clear hierarchy, the Examination cannot be certain that the development ultimately authorised will remain the development actually assessed.

Part IV Compulsory Acquisition and Land Rights: Whether the Applicant Is Seeking More Than the Scheme Requires

P.1 Principal objection

Before the environmental merits of East Pye Solar are considered, there is a more fundamental question about the powers the Applicant asks the Secretary of State to confer over other people's land.

The Applicant seeks compulsory powers across Order Limits extending to 1,212.3 hectares. The draft DCO includes power to acquire all interests in land, including freehold, under Article 21; to acquire new permanent rights under Article 24; to take temporary possession under Articles 31 and 32; and to suspend or override existing rights. The Applicant says that compulsory freehold acquisition is sought over parts of Work Nos. 1, 2, 3, 4, 7, 10 and 11. Work No. 1 is the ground-mounted solar generating station itself.

BEPS' objection begins with a simple question which the Statement of Reasons does not presently answer:

If the Applicant's intended commercial arrangement for the solar fields is a lease for the life of the Scheme, why does it require compulsory power permanently to acquire the freehold of those fields?

That question arises from the Applicant's own evidence. The Statement of Reasons confirms that Option Agreements have already been entered into with the relevant landowners for the Solar PV Sites, BESS, Project Substations and National Grid Substation. More importantly, paragraph 4.1.3 explains why compulsory powers are sought despite those agreements. One of the examples given is the possibility that a freeholder might fail to grant the Applicant a **lease** in accordance with a completed Option Agreement. The Applicant says compulsory powers are therefore required as protection against contracts not being performed or being disrupted by matters such as death, divorce or insolvency.

That evidence indicates that the underlying land bargain contemplated by at least the relevant Option Agreements is leasehold occupation, yet the DCO seeks a statutory power capable of replacing the existing owner altogether through permanent acquisition of the freehold.

The need for a statutory backstop and the need for permanent ownership are not the same thing. The Applicant may have a legitimate interest in ensuring that a project cannot be frustrated by failure to complete a contractual land agreement. But that does not establish that the appropriate statutory response is acquisition of a greater and permanent property interest than the 'temporary' Scheme actually requires.

This distinction goes directly to section 122 of the Planning Act 2008. Compulsory acquisition may only be authorised where the statutory land-purpose condition is satisfied and where there is a compelling case in the public interest for compulsory acquisition. The Applicant itself accepts that the Secretary of State must be satisfied that the land is needed, that no more land is acquired than is reasonably required, that reasonable alternatives to compulsory acquisition have been explored, and that the interference with property rights is necessary and proportionate. Current Government application guidance likewise requires the Statement of Reasons to explain why there is a clear and compelling case for the compulsory powers sought and why that case outweighs the potential private harm to landowners.

Those requirements demand more than proof that the 'temporary' East Pye Solar project needs permanent access to land. They require scrutiny of the **nature and extent of the interest** that the Applicant says it needs. For the solar fields, that scrutiny is presently missing.

P.2 The statutory question is not simply whether the Scheme needs land

The Applicant's Statement of Reasons correctly identifies the section 122 test and states that compulsory powers must be necessary, proportionate and no more extensive than reasonably required. It also accepts that there must be a clear idea of how the land is to be used, that reasonable alternatives must have been explored, and that the public benefits must outweigh private loss.

BEPS does not dispute that a 60-year solar project requires secure land control. The Applicant would plainly require sufficiently durable arrangements for construction, operation, replacement, maintenance, access and eventual decommissioning. That does not answer the present objection.

There are two separate questions. The first is whether the Scheme requires control of a particular parcel. The second is what legal interest in that parcel is actually required to provide

that control. A need to occupy land for a defined operational period does not automatically establish a need to own it permanently. A need to run a cable does not automatically require ownership of the surface. A need to maintain habitat does not automatically require the freehold. A need to preserve access does not automatically require permanent acquisition of the underlying land.

The Applicant itself implicitly recognises this distinction because the draft DCO contains a graduated range of powers: permanent freehold acquisition, acquisition of new rights and restrictions, subsoil rights and temporary possession. It further states that freehold acquisition has only been included where lesser powers would not be 'sufficient or appropriate'. That is therefore an assertion the Applicant must prove, not a conclusion the Examination should assume.

For each area of solar-field land over which Article 21 freehold powers are sought, the Applicant should demonstrate precisely why a lesser land interest would not secure the authorised development for its entire life.

P.3 Compulsory freehold powers materially alter the bargaining position in ongoing land negotiations

There is a further and more immediate proportionality concern. The Applicant is not merely seeking compulsory powers as a remote contingency after voluntary negotiations have failed. It is continuing to negotiate land agreements while simultaneously asking the Secretary of State to confer powers capable of compulsorily acquiring the freehold of the same land. That fact materially changes the bargaining position between the Applicant and affected landowners.

The Applicant's Statement of Reasons is explicit. It states that Option Agreements have already been entered into with relevant landowners for the Solar PV Sites, BESS, Project Substations and National Grid Substation, but that negotiations concerning land and rights remain ongoing. It says compulsory powers are nevertheless required even where agreement has been reached because, for example, a freeholder might not grant the lease required by the completed Option Agreement. In that event, the Applicant says it would be in the public interest for the Scheme to proceed and for the affected interests to be 'effectively converted into a claim for compensation'.

That is a significant statement. It means that a landowner negotiating the final terms of occupation is doing so in the knowledge that, if agreement is not reached or the contractual arrangements fail, the Applicant is seeking a statutory power not merely to secure the lease contemplated by the bargain but potentially to acquire the underlying freehold.

The Government's compulsory-purchase guidance expressly recognises the leverage inherent in that process. It permits compulsory-acquisition procedures to proceed in parallel with voluntary negotiations and observes that commencement of the formal process makes the seriousness of the acquiring authority's intentions clear and can encourage affected owners to enter more readily into negotiations. Once compulsory powers have been confirmed, the Government's public guidance states even more plainly that negotiations may continue in the

knowledge that, if they fail, the acquiring authority can secure ownership through compulsory acquisition.

BEPS does not suggest that parallel negotiations are unlawful merely because compulsory powers are being pursued. The statutory system expressly contemplates them. The concern at East Pye is more specific: **the bargaining leverage being sought appears potentially wider than the property interest which the Applicant's own commercial arrangements require.**

If the contemplated voluntary transaction is a 60-year temporary or similar project lease, the landowner's negotiating position should ordinarily concern the terms on which that temporary interest is granted: rent, indexation, access, liability, agricultural use, succession, restoration, decommissioning, taxation, insurance, environmental obligations and the condition in which the property will ultimately be returned.

Those negotiations are materially altered if the Applicant is simultaneously able to say, in substance, that failure to agree can result instead in permanent acquisition of the landowner's freehold and substitution of a statutory compensation claim.

A landowner deciding whether to accept a lease amendment, revised rent provision, decommissioning covenant, access right or other contractual term is not negotiating from the same position if refusal may expose the entire freehold interest to compulsory acquisition. The Examining Authority should therefore scrutinise whether the breadth of the compulsory powers sought is itself exerting leverage beyond that justified by the Scheme's actual land requirements.

The issue becomes especially important because the Applicant's own documents indicate that leasehold arrangements are expected where the Option Agreements operate normally. If the lease is sufficient where a landowner agrees voluntarily, the Applicant must explain why a substantially greater interest—the permanent freehold—is necessary merely because agreement is not ultimately reached. A compulsory-acquisition power should not be used to improve the Applicant's bargaining position beyond what is necessary to deliver the authorised development.

The current Planning Act application guidance requires the Applicant's Statement of Reasons to explain why the particular compulsory powers sought are necessary and proportionate, why there is a clear and compelling public-interest case for them, how that case outweighs private harm, and why the powers sought over each identified plot are justified. Those requirements become particularly important where the powers themselves materially affect the negotiations through which the Applicant says it is attempting to avoid compulsory acquisition.

The Examination should therefore establish not merely whether negotiations are continuing, but **what is being negotiated and against what compulsory alternative**.

For each solar-field landowner, the Applicant should identify whether the voluntary transaction contemplated is a lease, a freehold sale, permanent rights or some combination of interests; whether the form of transaction has changed since the Option Agreement was signed; and whether the Applicant has told the landowner that compulsory freehold acquisition may be pursued if agreement is not reached. It should also explain whether the commercial terms

currently being negotiated would be different if the DCO authorised only compulsory acquisition of the leasehold or other rights actually required to operate the Scheme.

This is relevant to the weight the Examination should give to subsequently concluded agreements. An agreement reached while the land is subject to proposed compulsory acquisition powers cannot simply be treated as evidence that the breadth of those powers was therefore uncontroversial or unnecessary to examine. Government guidance itself recognises that the existence of the compulsory process provides leverage which encourages agreement.

That is especially so here because the alternative confronting the landowner may not be equivalent to the voluntary bargain. The voluntary bargain appears, from the Applicant's own Statement of Reasons, to contemplate a lease. The compulsory alternative potentially permits acquisition of the freehold. The ExA should therefore require the Applicant to answer a basic question:

Why should a landowner negotiating a temporary lease for a temporary solar development have the permanent loss of the freehold hanging over those negotiations if permanent ownership is not actually necessary to construct, operate and decommission the Scheme?

Until that question is answered, it cannot safely be concluded that the freehold powers are the minimum proportionate interference with private property rights.

P.4 The Applicant must explain what happens to the landowner's contractual bargain if freehold powers are exercised

The relationship between the Applicant's Option Agreements and the compulsory powers also requires clarification because the economic consequences are potentially very different.

Under the voluntary model apparently contemplated by the Applicant's own Statement of Reasons, the landowner remains the freeholder and grants the Applicant a lease. Unless the actual agreements provide otherwise, the obvious commercial structure is therefore one in which the owner retains the reversionary title and receives the contractual consideration associated with the lease during the project period.

If the Applicant instead compulsorily acquires the freehold, that is a fundamentally different transaction. A general vesting declaration can transfer title itself to the acquiring authority. Government guidance confirms that compulsory acquisition can acquire existing freehold or leasehold interests and that compensation is then assessed under the compulsory-purchase compensation code. The overriding principle is financial equivalence, with compensation generally based upon the value of the interest taken together with any applicable disturbance, loss, severance or injurious-affection claims.

What is not clear from the East Pye Statement of Reasons is how that statutory compensation outcome interacts with the Applicant's existing Option Agreements. If the freehold is compulsorily acquired before the contemplated project lease is granted, is the landowner still entitled to the contractual stream of lease payments which would otherwise have been received over the Scheme's operational life? Is the option agreement terminated, overridden or

otherwise modified? Is loss of the contractual bargain separately compensatable? Is any compensation assessed by reference to the agricultural freehold in the statutory 'no-scheme' world rather than by reference to the solar lease consideration? Does the Applicant intend the option agreement itself to prescribe what happens upon exercise of compulsory powers?

Those questions cannot responsibly be answered without the actual contractual terms. The Applicant should answer them. Its Statement of Reasons says only that, in the event described, the landowner's interests would effectively be converted into a claim for compensation. That formulation conceals a potentially profound economic difference between the two outcomes. A landowner who expected to remain owner of the land, receive lease income throughout the operational period and recover unencumbered possession at the end of the lease may instead lose the freehold permanently in return for a compensation claim assessed under a different statutory regime. The ExA should know whether that is genuinely possible under this DCO before authorising the power.

BEPS is not required to establish what each confidential Option Agreement provides. The burden lies on the Applicant to demonstrate that the powers it seeks are necessary and proportionate. It should therefore disclose sufficient information about the standard commercial structure to enable the Examination to understand the consequences of compulsory acquisition without requiring publication of commercially sensitive individual rents.

P.5 Decommissioning makes the distinction between leasehold and freehold still more important

There is no general rule under which a solar-field freehold acquired compulsorily automatically revests in its former owner when the authorised solar development ends. The Crichel Down Rules do not provide such a mechanism. They are non-statutory arrangements principally concerning surplus government land. Where they apply, the normal principle is an opportunity for the former owner to **repurchase** qualifying surplus land, not automatic restoration of title. The Rules are recommended to local authorities and statutory bodies and are only commended in certain private-sector circumstances.

There is an additional problem specific to East Pye's proposed duration. Under the current Rules, the general offer-back obligation does not apply to agricultural land acquired on or after 30 October 1992 where the land becomes surplus and available for disposal more than **25 years after acquisition**. East Pye proposes a 60-year operational period. Accordingly, even if the Crichel Down Rules were applicable to this private project company – which should itself be established rather than assumed – the ordinary 60-year operating period would appear to extend far beyond the general 25-year offer-back horizon.

That makes it unsafe for the Application or the Examination to assume that compulsory freehold acquisition is compatible with a straightforward 'return of the land' after decommissioning. A lease provides an obvious legal reversion. At expiry, subject to its terms and any continuing statutory rights, the underlying ownership has remained with the landlord throughout. Compulsory acquisition of the freehold does not.

If East Pye Solar Limited or a successor owns the freehold at the end of the Scheme, the Examination needs to know what obliges that owner to transfer the land to the former freeholder or their successors, on what terms, at what price and in what condition. If there is no such mechanism, then 'restoration to agriculture' and 'return to the landowner' are entirely different propositions.

This creates several material decommissioning risks. Ownership of the land may have passed through a series of project companies or financiers over 60 years. The original owners may have died and their farming businesses may have reorganised. Boundaries, drainage systems and access arrangements may have changed. Some land may contain permanent biodiversity mitigation, woodland or infrastructure. Other areas may have become fragmented from the retained farm holding. The entity responsible for decommissioning may not be the entity which originally acquired the land.

The Applicant therefore needs to identify the intended legal end-state now. If its case is genuinely that the solar fields will be leased for the project period and returned to their owners following decommissioning, the DCO should be structured consistently with that proposition. If permanent freehold acquisition is to remain possible, the Applicant must explain what happens to those freeholds after the authorised use ends and why permanent deprivation of the former owner's reversionary interest is necessary in the first place.

P.6 Other solar NSIPs demonstrate that permanent freehold acquisition is not inherent to large-scale solar

The comparative evidence reinforces the need for an explanation. The SolarQ analysis supplied to BEPS examines 20 ground-mounted solar NSIP proposals. It categorises 17 as involving compulsory freehold acquisition of the solar fields and three—Byers Gill Solar, Helios Renewable Energy and Little Crow Solar—as seeking only compulsory acquisition of rights in the land of the solar fields. Those three schemes account for approximately 1,178 hectares in the analysis.

BEPS does not put that paper forward as legal authority, nor does it assume that every provision of those other DCOs is identical to East Pye Solar. Individual land arrangements and powers require examination on their own terms. The comparative evidence nevertheless establishes an important practical point. **Permanent ownership of every solar field is not an inherent technical requirement of NSIP-scale solar generation.** Large solar projects can and are structured around leasehold occupation, and compulsory acquisition powers for only for rights in the solar fields not freehold acquisition.

That is enough to require a project-specific explanation from East Pye Solar. The relevant question is not whether other solar promoters have also sought freehold powers; many plainly have. The question is why East Pye Solar needs permanent ownership when leasehold arrangements are demonstrably capable of supporting major solar development and when East Pye's own completed Option Agreements themselves appear to contemplate leases. They should also explain why they are seeking compulsory powers to acquire the leaseholds rather than simply rights in the land as a backstop.

The SolarQ evidence should therefore prompt the Applicant to explain, with reference to the actual terms and requirements of this Scheme, why East Pye falls on the freehold side of that distinction. An assertion that freehold acquisition is 'appropriate' cannot substitute for that evidence.

P.7 The Applicant must distinguish project necessity from commercial convenience

There may be obvious commercial attractions in owning land rather than leasing it. Freehold ownership can provide a developer or successor owner with greater flexibility. It may remove the need to administer long-term landlord and tenant relationships. It may simplify refinancing, sale, restructuring, repowering or future project changes. It may also give the project owner greater control over the land after the authorised solar use has ended. Those considerations may explain why permanent ownership is commercially attractive. They do not establish that it is required for the authorised development.

The statutory compulsory-acquisition case concerns the land interests necessary for the Scheme for which development consent is sought. Section 122 does not turn commercial preference into public necessity. The statutory test remains whether the land is required for the relevant development and whether there is a compelling case in the public interest for compulsory acquisition.

This distinction is especially important at East Pye because the Applicant has built flexibility into the DCO application itself. Its Statement of Reasons says that some detailed design cannot yet be confirmed, that future technology may differ from that currently available, and that flexibility is considered essential to successful delivery. That engineering flexibility should not become an unexamined justification for equally broad property powers.

The DCO should confer the land interest necessary to implement the assessed and authorised Scheme. It should not confer permanent ownership merely because permanent ownership would maximise the Applicant's future commercial options.

P.8 The Applicant's own alternatives evidence makes the inconsistency sharper

There is a further inconsistency in the Applicant's approach to compulsory acquisition. Chapter 5 records that the Applicant identified potentially suitable land closer to the final Point of Connection which could have reduced cable length, disruption to residents and businesses, environmental disturbance and cost. Those areas were not treated as reasonable alternatives because the land had not been made available to the Applicant. The Applicant expressly stated that, without willing landowners, compulsory acquisition would have been necessary and that it had sought to avoid that 'as far as practicable'. Landowner willingness therefore played a material role in defining the selected Scheme.

That makes the present freehold case particularly important. The Applicant relied upon willing landowners and voluntary agreements when deciding which land should form the Scheme, yet

it now seeks powers capable of permanently acquiring freeholds within that selected land package notwithstanding completed Option Agreements which appear to contemplate leases.

The Examination should not allow those two stages to blur into one another.

Landowner willingness may explain how the land package was assembled. It does not establish that the Applicant needs permanent ownership of that land. Nor can the proposition that compulsory acquisition elsewhere was undesirable be reconciled without explanation with a request for Article 21 freehold powers over participating solar-field land here.

P.9 The Statement of Reasons does not yet demonstrate why lesser powers are insufficient for Work No. 1

Work No. 1 is the NSIP itself: the ground-mounted solar photovoltaic generating station, including solar modules, mounting structures, electrical infrastructure and associated cabling. The Applicant confirms that compulsory freehold powers are sought over parts of Work No. 1. It simultaneously seeks permanent new rights and restrictions under Article 24 and temporary-possession powers under Articles 31 and 32.

The Statement of Reasons says that freehold has been sought only where those lesser powers are insufficient or inappropriate. It does not, in the material presently identified by BEPS, explain with sufficient specificity why they are insufficient for the ordinary solar-field component of Work No. 1.

Solar modules do not themselves require ownership of the legal estate in the land beneath them. The technical question is whether the Applicant can obtain sufficiently secure possession and control for the authorised operational period, together with the rights needed for construction, access, maintenance, replacement and decommissioning. The Applicant's existing Option Agreements appear already to contemplate leases capable of providing that fundamental possession. The draft DCO separately provides mechanisms for permanent rights and restrictions.

The Applicant should therefore identify the specific function which requires permanent freehold ownership of each Work No. 1 plot. If no such function exists, Article 21 powers over that plot are wider than the Scheme has demonstrated it requires. This is not a minor drafting issue. Work No. 1 comprises the land on which the generating station itself is spread across South Norfolk. The distinction between securing temporary project occupation and permanently extinguishing the landowner's title is potentially substantial.

This is especially important given the response by NGET in its relevant representation: there is no requirement for East Pye Solar to obtain the land for a National Grid Substation through compulsory acquisition, and NGET has yet to confirm where the location of any new substation will be.

P.10 Contractual risk does not, without more, justify acquisition of a greater interest

The Applicant's concern about contractual failure is understandable. A major infrastructure project cannot sensibly depend upon every private agreement remaining immune from dispute or unforeseen events over a lengthy delivery programme.

But the answer must remain proportionate to the risk.

If the risk is that a landowner who has contracted to grant a lease fails to do so, the Applicant should explain why the necessary statutory protection cannot be confined to the interest and rights required to put the Scheme in substantially the same operational position as performance of the agreed land arrangement would have achieved.

It is not self-evident why breach of an agreement to grant a lease should result in the Applicant acquiring a permanently larger interest in the property.

The Statement of Reasons also cites death, divorce and insolvency as examples of events which may disrupt contractual arrangements. Again, those matters may justify having compulsory powers available. They do not answer the separate question of what those powers should permit the Applicant to acquire.

A statutory backstop should secure delivery of the authorised development. It should not confer an unexamined windfall in the form of a greater land interest merely because the voluntary route failed.

The Applicant should therefore disclose, at least in sufficiently clear summary form to permit Examination, the landholding outcome contemplated by its Option Agreements and the materially different outcome permitted by Article 21.

P.11 Compensation does not answer the necessity objection

The Statement of Reasons repeatedly relies upon the fact that compensation is payable where compulsory powers are exercised.

That does not resolve this objection.

Compensation addresses the financial consequences of a compulsory acquisition which is otherwise justified. It does not establish that the particular interest acquired was necessary in the first place.

The question must be asked in the opposite order.

First, what interest is actually necessary to construct, operate, maintain and decommission East Pye? Secondly, is there a compelling case in the public interest for compelling the landowner to surrender that interest? Only then does compensation address the financial consequences of the acquisition.

It would be circular to justify an unnecessarily extensive property power by pointing out that the landowner can subsequently claim compensation for losing the property.

That is particularly important where the distinction is between a finite land interest consistent with a 60-year project and permanent loss of the freehold.

P.12 Other categories of land require the same interest-specific scrutiny

The solar fields present the clearest issue, but the same principle applies across the DCO.The Applicant seeks freehold powers over parts of Work No. 2, the BESS; Work No. 3, project substations; Work No. 4, the National Grid Substation; Work No. 7, security, landscaping and ancillary works; Work No. 10, habitat-management land; and Work No. 11, permissive paths and community-accessible space. Those uses do not all have the same landholding requirements.

A permanent electrical substation may present a different case from a solar field. A habitat-management parcel presents a different case again. A permissive path does not obviously require the same estate as major electrical infrastructure. Ecological mitigation may require long-term control, but long-term control and permanent ownership are not synonymous.

Indeed, the Applicant itself seeks new rights and restrictive covenants for parts of Work Nos. 1, 5, 6, 7, 9 and 10. That demonstrates that the DCO already recognises rights-based solutions as capable of securing important elements of the Scheme.

The Statement of Reasons should therefore not aggregate these materially different uses behind a general assertion that freehold is required. The justification must identify why the particular interest sought is the minimum sufficient interest for the particular purpose.

For Work No. 10 habitat-management land, for example, the Applicant should explain why long-term ecological management cannot be secured through an appropriate lease, covenant, management right or restriction. For Work No. 11, it should explain why provision of permissive paths or community-accessible space requires freehold acquisition where defined public-access and maintenance rights might achieve the stated purpose.

The same principle applies throughout: **control necessary for the Scheme is not automatically ownership necessary for the Scheme.**

P.13 National Grid land and the unresolved connection solution

The compulsory-acquisition case for the proposed National Grid Substation is materially undermined by NGET's own Relevant Representation. The Applicant has included land within the Order Limits for Work No. 4, works in connection with a new National Grid substation, and Work No. 5, works in connection with connection to the existing 400 kV overhead transmission line. It also seeks compulsory-acquisition powers over land and rights associated with those

Works. NGET records that the Applicant's original July 2023 connection agreement required the Applicant to identify a location for the National Grid Substation, provide the necessary land and secure planning or development consent. NGET expressly explains that this was the basis upon which the present DCO application came to include compulsory acquisition of the land and powers required for the substation.

That position has now materially changed. NGET states:

'It is important to note in this context that it is NGETs understanding that the new connection agreement will not include the requirement for the Applicant to secure land or consent for the National Grid Substation.'

That statement goes directly to the necessity of the compulsory powers sought. The factual premise relied upon to justify compulsory acquisition of that land has therefore materially altered. NGET expressly warns that grant of consent for the National Grid Substation would not oblige NGET to use it:

'For the avoidance of doubt, should the Applicant receive consent for the National Grid Substation as part of the Order, this does not trigger or constitute any obligation for NGET to accommodate any connection to the national grid at such a substation.'

NGET states that the wider regulatory and commercial position must still be worked through before the location of the new substation can be confirmed. It states that the final size, design and location of the point-of-connection solution will be influenced by the final Gate 2 offers and that, until those offers have been finalised, 'NGET cannot confirm what that solution will be'.

Those are unusually important statements from the statutory undertaker that would design and construct the National Grid Substation.The position is therefore not merely that detailed engineering remains to be completed. Three more fundamental matters remain unresolved:

- the Applicant may no longer be contractually required to secure the substation land or consent;
- NGET has not confirmed that the substation solution authorised by the DCO will be the solution ultimately adopted; and
- even if the DCO authorises the proposed substation, NGET expressly states that this creates no obligation upon it to accommodate East Pye through that substation.

Chapter 4.5–4.7 addresses the resulting scheme-definition and deliverability consequences in detail. The compulsory-acquisition consequence is narrower but particularly serious.

Section 122 requires a compelling case in the public interest for land to be acquired compulsorily. A power permanently to acquire land cannot properly be justified merely because the land may prove useful under one possible future transmission solution. The Applicant must demonstrate that the particular land interest is required for the development for which consent is sought. At present that causal chain is broken.

The Applicant originally sought the land because its connection agreement required it to provide the land for a particular National Grid solution. NGET now says the replacement agreement is not expected to impose that obligation and that the final connection solution itself

remains unconfirmed. In those circumstances, the Applicant must establish afresh why it requires compulsory powers over the Work No. 4 land at all.

It is not sufficient to argue that obtaining the land would preserve flexibility for NGET. System flexibility and compulsory-acquisition necessity are different concepts. NGET has its own statutory responsibilities and mechanisms for acquiring or securing land required for transmission infrastructure. The Applicant must explain why East Pye Solar Limited itself needs permanently to acquire the freehold of land for infrastructure which NGET may ultimately own, design, construct and operate, particularly when NGET itself says that the new connection agreement is not expected to require East Pye to secure that land. That raises a series of questions which should be answered before compulsory powers are granted.

The Applicant should identify whether it still has any contractual obligation to acquire the National Grid Substation land; who would own that land if Article 21 powers were exercised; whether and on what terms it would subsequently be transferred to NGET; whether NGET actually requires East Pye to acquire the freehold; whether rights rather than freehold would suffice; and what happens to the land and the compulsory powers if NGET adopts a different point-of-connection configuration.

Most importantly, the Applicant should explain why the Secretary of State should authorise compulsory acquisition now when the prospective operator of the infrastructure cannot yet confirm that the authorised solution will be used.

NGET's Relevant Representation does not merely raise a request for drafting protection. It removes an important part of the Applicant's original necessity case. NGET states that the replacement connection agreement is not expected to require East Pye to secure the land or consent for the National Grid Substation and that the final point-of-connection solution cannot yet be confirmed. BEPS therefore submits that compulsory freehold powers for the National Grid Substation land should not be recommended unless the Applicant produces clear evidence, supported by NGET, demonstrating that the particular land and the particular interest sought are genuinely necessary for a confirmed connection solution.

If NGET does not require East Pye to acquire the land, and if NGET has not confirmed that the proposed substation will be the final solution, the Applicant has not presently established why East Pye should be given compulsory powers to acquire it. The proper approach is not to authorise the widest land powers as insurance against whatever transmission solution may later emerge. The connection solution should determine the land requirement; the land power should not be granted first in order to preserve an unresolved connection option.

P.14 National Gas and other statutory undertaker interests

The same principle applies to existing statutory-undertaker land, apparatus and rights elsewhere within the Order Limits. Chapter 4.8 addresses in detail the interaction between the Scheme and National Gas Transmission infrastructure, including the FM05 Yelverton–Stowmarket high-pressure gas transmission pipeline, associated cathodic-protection infrastructure, easement requirements, access tracks, cable crossings, drainage, landscaping and the Applicant's proposed compulsory powers. Those matters need not be repeated here.

Their relevance to the compulsory-acquisition case is straightforward. Compulsory powers should not be granted in a form capable of extinguishing, overriding or materially interfering with operational statutory-undertaker rights and apparatus unless the necessity for that interference has been demonstrated and adequate protective provisions are secured.

That principle is confirmed by NGET's own Relevant Representation. NGET identifies numerous plots over which the Applicant seeks freehold, permanent or temporary rights notwithstanding existing NGET rights and apparatus. It states that its rights of access to inspect, maintain, renew and repair its infrastructure must be maintained at all times and that, where the Applicant seeks to acquire land or rights or interfere with existing or future NGET interests, "appropriate protection" is required.

NGET accordingly requires protective provisions under which the Applicant must obtain NGET's prior written consent before exercising compulsory powers over NGET land, rights or apparatus. It also records that further discussion and agreement with the Applicant remain necessary.

That evidence illustrates the wider problem. The DCO seeks coercive powers now while the detailed terms upon which those powers may safely interact with nationally important infrastructure remain unresolved.

The same concern applies to National Gas Transmission. Where the Scheme crosses or approaches the high-pressure gas main, associated easements and access requirements, the Applicant must demonstrate that the proposed Works, land rights and compulsory powers are compatible with the continuing safe operation, inspection, maintenance and emergency access requirements of that infrastructure.

Protective provisions are therefore not an administrative matter to be tidied up after the principle of the powers has been accepted. They are part of the evidence required to establish that the powers can lawfully and safely be exercised.

Where the statutory undertaker has not agreed the protection required, the ExA should not assume that agreement will inevitably follow. Nor should powers capable of overriding existing rights be granted merely because the Applicant expects commercial negotiations to succeed during or after Examination.

BEPS therefore submits that, before the relevant compulsory powers are recommended, the Applicant should identify every unresolved statutory-undertaker interaction, the plots and Works concerned, the rights potentially affected, the current status of protective provisions and whether the relevant undertaker agrees that the proposed development can proceed on the terms contained in the draft DCO.

Until those protections are settled, unresolved statutory-undertaker interfaces weaken both the deliverability case and the proposition that the compulsory powers sought are presently necessary, proportionate and safe to confer.

P.15 The human-rights analysis must address the intensity of the interference

The Applicant accepts that Article 1 of the First Protocol to the ECHR is engaged and that the draft DCO has the potential to interfere with the property rights of persons whose land or interests are acquired. It concludes that the interference is justified because the Scheme would produce very significant public benefits and because the powers are said to be necessary and proportionate.

That conclusion depends upon the very question BEPS raises.

Proportionality cannot be assessed solely by asking whether some interference with property rights is justified. The nature and extent of the interference matter.

Permanent loss of a freehold is materially different from granting defined rights or surrendering possession for the operational life of a project while retaining the underlying title.

Where the public purpose can be achieved through a materially less intrusive property interest, that is plainly relevant to whether the wider interference has been justified. The Applicant's own compulsory-acquisition guidance recognises the need for the interference with affected rights to be necessary and proportionate.

The human-rights analysis therefore cannot simply assume the necessity of Article 21 and then conclude that Article 21 is proportionate.

It must demonstrate why the lesser interference would not work.

P.16 The compulsory-acquisition objection stands independently of the wider need case

BEPS addresses the Applicant's wider need case in Chapter 1. That chapter explains why generic national renewable-energy policy, Gate 2 status, commercial optionality and possible future attrition do not demonstrate an unmet T7 requirement which East Pye itself is required to fill.

That issue is relevant to the second limb of the compulsory-acquisition case because the strength of the specific public benefit claimed for East Pye necessarily informs whether there is a compelling case in the public interest for taking private land. But the present objection does not depend upon Chapter 1 being accepted.

Even if the Examining Authority were to assume for present purposes that East Pye should be built, a separate question would remain:

Why must the Applicant own these solar fields permanently in order to build it?

The Statement of Reasons does not answer that question by referring to national renewable-energy need. National policy may bear upon the desirability of generating electricity. It does not establish the form of property interest necessary to place panels on a field for 60 years. The distinction should be maintained rigorously.

The Applicant must first establish the minimum land interest required to deliver the Scheme. Only then can the wider public-interest balance be applied to the compulsory taking of that interest.

P.17 The Applicant should be required to state its intentions unequivocally

The present Application leaves an avoidable ambiguity over one of the most serious powers contained in the draft DCO.

The Applicant should therefore be required to state unequivocally whether it actually intends the ordinary solar-field land to be held under long leases pursuant to the completed Option Agreements or whether it intends, or wishes to preserve the ability, to acquire those freeholds permanently.

If leases are intended, the Applicant should identify their duration and explain why the DCO cannot be confined to the lesser statutory rights required to guarantee delivery and remove third-party impediments.

If compulsory freehold acquisition is genuinely contemplated, the Applicant should identify the affected plots and explain, plot by plot, why ownership is required rather than leasehold occupation or lesser rights.

The Applicant should also explain what happens at decommissioning to any solar-field freehold acquired compulsorily. If the stated end-state is restoration to agricultural use, the Examination should understand who will then own the land and why permanent transfer of ownership was necessary to achieve a development whose principal solar use has ended.

Those questions should be answered before compulsory powers are authorised, not after consent when the Applicant decides which powers it wishes to exercise.

P.18 The comparative evidence makes a generic answer inadequate

SolarQ's analysis is particularly useful because it removes any basis for assuming that the answer is self-evident.

Its sample includes projects promoted through different landholding models. It identifies 17 projects characterised as seeking freehold possession and three characterised as leasehold schemes.

That does not mean East Pye must adopt the model used at Byers Gill, Helios or Little Crow.

It does mean the Applicant must explain why it cannot.

The question is especially compelling because East Pye's own documents already point towards a leasehold model. The Applicant is not being asked to adopt an unfamiliar mechanism imported from another project. Its Statement of Reasons itself describes completed Option Agreements under which freeholders are expected to grant leases.

The issue is therefore internal to the Applicant's own case.

Why is a lease sufficient when the landowner performs the Option Agreement, but permanent acquisition of the freehold potentially necessary when the landowner does not?

Unless there is a substantive project reason for that distinction, the difference appears to arise from the breadth of the statutory remedy sought rather than from the physical requirements of the solar farm.

That is precisely the kind of issue the necessity and proportionality tests are intended to expose.

P.19 Overall conclusion

The compulsory-acquisition case should not be approached on the basis that, because East Pye requires land, every land power in the draft DCO follows.

The Applicant seeks a sophisticated hierarchy of powers ranging from temporary possession and permanent rights to outright freehold acquisition. It therefore has both the ability and the obligation to distinguish between different levels of interference.

Its own evidence shows that Option Agreements are already in place for the Solar PV Sites and that those agreements contemplate freeholders granting leases. Its own environmental case describes the principal solar use as having a 60-year operational life followed by decommissioning. Its own Statement of Reasons says that freehold acquisition is sought only where lesser interests would be insufficient. Yet the DCO seeks Article 21 powers over parts of the solar generating land without presently providing a convincing explanation of why leasehold occupation and appropriately framed rights cannot secure that same temporary development.

The independent SolarQ comparison reinforces the point by identifying other large solar NSIPs proceeding on leasehold models.

The issue is therefore not whether East Pye needs land. It plainly does.

The issue is whether it needs **this degree of ownership**.

The Applicant has not yet demonstrated that proposition.

That failure is especially serious because compulsory acquisition is not a planning convenience. Section 122 requires a compelling case in the public interest for the land to be acquired compulsorily. The existence of a public purpose does not dispense with the need to justify the extent of the private interest taken.

BEPS therefore submits that the ExA should not recommend the Article 21 powers over solar-field land in their present form unless and until the Applicant has identified its intended landholding model, disclosed the substantive basis on which its existing Option Agreements require leases, and demonstrated plot by plot why a lesser interest would be insufficient.

Where a long lease and defined rights can secure construction, operation, maintenance and decommissioning for the full life of the Scheme, permanent acquisition of the underlying freehold has not been shown to be necessary.

Where the Applicant says it has no present intention of acquiring the freehold, that is not an answer. It is a reason to question why the power is sought.

Where it does intend to acquire the freehold, it should say so plainly and justify it.

The DCO should confer no greater property power than the authorised development demonstrably requires. On the Applicant's present evidence, that fundamental test has not yet been met.

P.20 Remedy sought

BEPS asks the Examining Authority to require, before the close of Examination, a revised compulsory-acquisition justification which distinguishes land occupation from land ownership and identifies, for every plot subject to Article 21, why permanent freehold acquisition is necessary rather than leasehold occupation, permanent rights, restrictions or temporary possession.

That revised case should state expressly whether the Applicant intends to acquire solar-field freeholds or to operate through the leases contemplated by its Option Agreements; identify the circumstances in which Article 21 would actually be exercised; explain the post-decommissioning ownership position; distinguish the land requirements of Work No. 1 from those of the BESS, substations, habitat land and community land; and reconcile the compulsory powers sought for the National Grid infrastructure with NGET's current position on the final connection solution.

If the Applicant cannot demonstrate why freehold acquisition is required for a particular parcel, the freehold power over that parcel should be removed and replaced, where genuinely necessary, with the minimum lesser rights sufficient to deliver the authorised Scheme.

The Secretary of State should not be asked to grant permanent compulsory ownership merely as insurance against contractual failure, for commercial convenience, or to preserve future optionality.

The power sought must follow the demonstrated need for the land interest. The Applicant cannot reverse that sequence by seeking the widest power first and deciding later how much of it it actually needs.

P.21 Confidentiality and non-objection obligations: landowners must remain free to participate

The Examination should establish whether any East Pye Option Agreement, lease, heads of terms or related land agreement contains confidentiality, non-objection or other provisions capable of restricting a landowner's participation in the DCO process. BEPS does not assert that such provisions exist at East Pye. The point is that, because the Applicant relies upon voluntary land agreements and the apparent absence or resolution of landowner objections as part of its land and compulsory-acquisition case, that freedom should be demonstrated rather than assumed.

The issue is not ordinary commercial confidentiality. There may be legitimate reasons to protect rents, option payments and other commercially sensitive terms. The concern is different: any provision which prevents or discourages a landowner from objecting to the Scheme, making a Relevant or Written Representation, appearing at a hearing, commenting on compulsory acquisition, providing factual evidence about the land, or communicating environmental or land-use concerns to the Planning Inspectorate or statutory bodies.

That question is particularly legitimate because another Island Green Power project, Lime Down Solar Park, attracted public controversy in 2025 over arrangements reported to contain a condition requiring affected landowners not to object and to withdraw existing objections. Island Green Power subsequently acknowledged that the wording should not have been included and stated that affected landowners remained free to make representations. That episode does not establish that comparable provisions exist at East Pye, but it makes the issue one which should be answered expressly.

The point is also material because East Pye Solar has evolved substantially since many land agreements may first have been entered into. The final application includes extensive solar development, BESS, multiple substations, National Grid infrastructure, cabling, access works, habitat land and compulsory-acquisition powers across approximately 1,212 hectares. A landowner who originally agreed an option or prospective lease may now face materially different infrastructure, access, drainage, environmental or compulsory-acquisition consequences. Agreement to an option is not necessarily agreement to the final DCO.

That is especially important where the voluntary bargain may contemplate a lease but the DCO seeks compulsory freehold acquisition. A participating landowner may have

relevant evidence about whether permanent acquisition was ever contemplated, the effect on the farm holding, severance, drainage, private water supplies, soils, access, local ecology or decommissioning. Such evidence is directly relevant to the Examination and must not be inhibited by private contractual terms.

The Applicant's own Statement of Reasons relies upon engagement with affected persons, voluntary agreements and continuing negotiations as part of its compulsory-acquisition case. Those matters can only be given proper evidential weight if participating landowners remain free to express concerns. Silence should not be treated as evidence of support if contractual provisions may have influenced that silence.

BEPS therefore asks the ExA to require the Applicant to confirm whether any East Pye Solar land agreement has at any time contained provisions which prevent or discourage objection, require support or withdrawal of representations, restrict participation in the Examination, make payments conditional upon non-objection, impose financial consequences for objecting, or restrict disclosure of information relevant to the planning or compulsory-acquisition merits of the Scheme.

If no such provisions exist, the Applicant should confirm that unequivocally. If any have existed, it should identify their nature, confirm whether they have been expressly and unconditionally waived, and notify the affected landowners that they are free to participate fully in the Examination without contractual or financial penalty.

The distinction should be explicit:

Agreement to enter into an option or lease is not agreement to every subsequent form of the DCO application, and commercial confidentiality must not prevent an affected landowner from giving relevant evidence about the Scheme or the compulsory powers sought over their land.

Until that position is confirmed, the ExA should not infer support, consent or absence of concern merely from the silence of participating landowners.

Part V – DCO controls: genuinely cross-cutting issues

P.22 Preliminary works and commencement must not precede essential safeguards

The definition of commencement is a cross-cutting control point because it determines when the principal Requirements begin to bite. If environmentally consequential activities can be carried out as "permitted preliminary works" before those Requirements apply, the protection offered by the DCO may be substantially weakened.

PINS has already identified this issue. Its section 51 advice questioned whether the proposed "permitted preliminary works" were properly captured within the authorised

development and advised the Applicant to consider whether the definitions of "commence" and "permitted preliminary works" should be amended so that site preparation capable of causing significant environmental effects is not excluded from commencement. The concern expressly extends to effects involving noise, protected species and archaeology.

The Applicant has now responded by introducing a specific control for permitted preliminary works. Revision 2 of Requirement 13 provides that those works must be carried out in accordance with a separate Permitted Preliminary Works Environmental Management Plan, introduced expressly in response to the Inspectorate's section 51 advice. BEPS welcomes the recognition that preliminary works require specific environmental control. The amendment does not, however, remove the examination issue. The ExA must establish precisely what activities fall within "permitted preliminary works", which Requirements are disapplied before formal commencement, and whether vegetation clearance, intrusive investigations, archaeological works, drainage works, access formation, piling trials or other potentially consequential activities could occur before the full suite of ecological, archaeological, hydrological and construction controls has been discharged.

That concern is well founded in the context of East Pye. Activities capable of being characterised as preparatory can themselves cause irreversible or difficult-to-remedy harm. Vegetation and hedgerow clearance can affect protected species and habitat connectivity. Intrusive ground investigation and trial piling can create groundwater pathways or disturb contamination. Archaeological investigation may itself involve destructive excavation. Access formation, compounds and temporary haul routes can disturb soils, drainage, trees and hedgerows. Utility diversions and drainage works may affect watercourses and third-party infrastructure. The environmental consequences of those activities are addressed in detail in Chapters 8, 9, 11, 15 and 16.

The legal point is narrower. Those safeguards must apply before the harm occurs. It would be circular for the DCO to require ecological, archaeological, groundwater, soil, drainage or traffic controls before "commencement", while defining commencement so narrowly that activities capable of causing those very effects may already have taken place.

The Applicant should therefore provide an exhaustive schedule of every activity excluded from the definition of commencement and identify, for each, the Requirements and other controls that apply before it may begin. No vegetation clearance, hedgerow or tree work, intrusive ground investigation, trial piling, archaeological excavation, access construction, drainage work, compound formation, utility diversion or comparable activity should escape substantive environmental control merely because it is labelled preliminary.

Where the Applicant wishes genuinely low-impact surveys or investigations to remain outside commencement, the exclusion should be tightly defined. Environmentally consequential preparatory works should either constitute commencement or be subject to a separate pre-commencement Requirement imposing the same relevant safeguards that would have applied had full construction begun.

The principle should be simple: the legal label attached to an activity cannot determine whether environmental protection applies. Its actual potential effects must do so.

P.23 Staging, phasing and token commencement

The Scheme extends across numerous geographically separate Sites, Sub-Sites, cable corridors, substations, access routes and grid works. That makes staged implementation inevitable, but the draft DCO must distinguish legitimate construction phasing from a power to define the project incrementally after consent.

The concern arises where Requirements may be discharged for a “stage” or “part” without the stages themselves first being fixed. If the undertaker can define stages after consent, environmental controls may be fragmented in ways not tested in the ES. One Site may proceed under one version of a management plan while another proceeds years later under another. Mitigation relied upon across the Scheme may be delayed until a later phase. Different construction fronts may overlap in combinations not assessed. Surveys undertaken for the application may also become materially out of date before later Sites are built.

Chapter 4 already identifies the possibility of prolonged staging, construction of only some solar Sites, delayed BESS, omission of substations and partial implementation. The DCO consequence is that the phasing structure must itself be controlled.

There is a further risk of token commencement. If a minor activity on one part of the Order Limits is sufficient to “commence” the authorised development as a whole, the Applicant may preserve the benefit of the entire DCO while leaving substantial Sites or Works untouched for many years. That could preserve statutory and compulsory powers over land long after the evidence used to assess particular Works has become stale.

This is particularly serious for ecology, where protected-species use and habitat condition can change materially; for drainage and groundwater, where physical and regulatory baselines may change; and for highways and surrounding development, where the network against which impacts were assessed may no longer be the same.

Revision 2 of Requirement 2 now requires, before commencement, a written scheme setting out the construction phase or phases, together with a timetable and a plan identifying the phasing areas. That is a useful improvement and acknowledges the need for greater control over phasing. It does not, however, resolve the concerns identified above. The Requirement does not specify a maximum interval between phases, an overall construction long-stop, the consequences of a phase being commenced but subsequently abandoned, expiry of unused Works powers, or the mitigation dependencies which must be maintained where construction is substantially staggered. Nor does a submitted timetable itself establish the maximum environmentally assessed phasing scenario.

BEPS therefore submits that that Requirement 2 should be strengthened so that the Scheme-wide phasing plan should identify the constituent stages, the Works included in each, their sequencing, the maximum periods between stages, mitigation dependencies and the point at which land and powers associated with any abandoned stage fall away.

The Order should also provide that commencement of a minor or preliminary element does not preserve indefinitely the right to build materially independent Works. Where a principal Site, BESS, substation or other severable component has not commenced within a defined period, its authorisation and associated land powers should expire unless a justified extension is approved through an appropriate statutory process.

The Applicant should not be entitled to obtain one DCO for a geographically dispersed Scheme and then preserve every element through nominal commencement of only one small part.

P.24 The Requirements must be precise, mandatory and testable

The draft DCO relies heavily upon Requirements and outline control documents. That approach is legitimate only if the obligations are sufficiently precise to be examined, discharged and enforced.

PINS has already identified a material weakness. Its section 51 advice criticised repeated use in the outline management plans of expressions such as “where practicable” and “as far as reasonably practicable”, warning that such unbounded qualifiers may reduce the clarity and precision of measures relied upon in the ES, and may affect their “examinability and testability”. PINS made the same point in relation to the Design Principles and Parameters, advising that unbounded qualifiers should be replaced with quantified and testable commitments.

That concern applies directly to the Applicant’s mitigation case. A measure relied upon to reduce an effect from significant to non-significant cannot safely remain subject to the undertaker’s later assessment of practicability. If the environmental conclusion depends on the measure, the default position should be that the measure is mandatory.

The problem is compounded by the frequent use of the expression “substantially in accordance with” when final plans are to be prepared after consent. Chapter 4 already identifies why this matters: unless the permissible departure is tightly bounded, a final plan may differ from the outline version on which the environmental assessment relied while still being said to satisfy the Requirement. BEPS has therefore already proposed that any amendment mechanism should prevent departure where it would exceed an assessed parameter, produce materially different effects, affect additional land, prejudice third-party rights, undermine mitigation or alter the compulsory-acquisition justification.

The revised Commitments Register does not cure that problem. Revision 2 improves administrative traceability by introducing individual commitment references and columns identifying delivery, responsibility and compliance. However, the Register continues expressly to state that it "is not a secured document"; it functions as a tracker directing commitments to other securing mechanisms. More importantly, substantive commitments continue to contain qualifications such as "where practicable", "as far as practicable", "where possible" and "as far as reasonably practical", including measures concerning vegetation retention, lighting, heritage settings, siting in relation to residential and recreational receptors and continued availability of PRoWs. Revision 2 therefore improves the administration of the commitments but does not answer the Inspectorate's underlying concern about whether mitigation relied upon by the ES is sufficiently precise, testable and enforceable.

The cross-cutting requirement should therefore be that every measure material to environmental acceptability is translated into a precise and enforceable control. Each Requirement should identify the approving body, required submission, mandatory consultees, objective standard, timing, monitoring obligation, remedial trigger and responsible party.

BEPS does not suggest that every management-plan sentence must be converted into an absolute prohibition. Some professional judgment will inevitably remain. But where discretion is retained, the DCO must identify who exercises it, according to what objective criteria and subject to what evidence and approval.

The present approach too often substitutes future judgment for present commitment. That is not adequate where the ES has already assumed the mitigation will work.

P.25 Post-consent approvals must not determine questions of principle

The substantive chapters identify extensive reliance upon later investigations, detailed designs, licences, management plans and approvals. The critical legal distinction is between legitimate implementation detail and a matter that determines whether the development is environmentally acceptable at all.

Post-consent controls are appropriate where the principle of the solution is already established and the later decision merely fixes its detailed implementation. They are not an adequate substitute where the later work must determine whether an acceptable solution exists.

That distinction arises repeatedly at East Pye. The Commitments Register records that intrusive ground investigations, Foundation Works Risk Assessments, UXO follow-up and hydrogeological assessments for trenchless crossings may be undertaken after consent or before construction. Transport arrangements depend materially upon later CTMP and related plans. Operational noise mitigation may involve selection of quieter equipment, relocation, reorientation, acoustic enclosures or barriers at detailed-design stage. BESS safety depends materially upon later BSMP and emergency-response arrangements. Archaeological work remains dependent upon further targeted investigation and mitigation.

The Environment Agency provides a concrete example of why that distinction matters. It has identified the absence of Maximum Design Scenario values for foundation and piling depths at the project substations and Site 1B 400 kV substation, stating that without the maximum vertical extent of disturbance the potential impacts on groundwater cannot be assessed. That is not merely a question of choosing a contractor's method after consent. The missing parameter affects whether the environmental effect can presently be assessed.

The same principle applies throughout. If later work is required to determine whether protected-species harm can be avoided, whether a highway route can physically operate, whether groundwater can be protected, whether operational noise can meet the required level, or whether a BESS emergency system can safely function, the Examination is not being asked merely to approve future detail. It is being asked to assume that a satisfactory solution will later be found.

That reverses the proper sequence. The Applicant should demonstrate the existence of an acceptable solution before consent and use Requirements to secure its implementation afterwards.

Where a matter affects the location, scale, principle, deliverability or environmental acceptability of a Work, it should be resolved during Examination or the relevant Work or flexibility should be removed. Chapter 4 already identifies that consequence for unresolved BESS, National Grid, cable and highway solutions.

The DCO should therefore not become a mechanism for completing the environmental design after consent. It should secure a design whose acceptability has already been demonstrated.

P.26 Requirement discharge, consultation, amendments and deemed approval

Where substantial matters are nevertheless left to discharge of Requirements, the discharge procedure becomes an important part of the environmental protection itself.

The DCO should identify mandatory consultees according to subject matter. Where the Environment Agency, Natural England, Norfolk County Council, the LLFA, National Highways, the fire and rescue service, the local planning authority, heritage officers or statutory undertakers possess relevant regulatory or technical responsibility, consultation should not depend upon whether the discharging authority or undertaker chooses to seek their view.

BEPS acknowledges that Revision 2 improves this position. Schedule 15 now provides that, where an approved document is subsequently amended, any body or authority which was required to be consulted upon the original approval is also a "requirement consultee" for the amendment. That improvement should be retained. It reduces, but does not eliminate, BEPS's concern about later alteration of environmentally important documents.

That is particularly important where those bodies have already identified unresolved issues during examination. A final groundwater, drainage, protected-species, transport or emergency-response plan should not be capable of approval without consultation with the body whose statutory function is directly engaged.

The procedure should also be transparent. Final plans, consultation responses, approvals and later amendments should be publicly available, with clear version control. Interested parties should be able to identify what has replaced the outline document examined and whether the environmental obligations have changed.

The more fundamental deemed-approval concern remains unaffected by that improvement. BEPS also objects to deemed approval for environmentally sensitive Requirements. Administrative silence cannot provide substantive evidence that a technically complex submission is acceptable. A drainage scheme, private-water-supply protection plan, protected-species strategy, BESS safety plan, archaeological mitigation scheme, soil-restoration plan or decommissioning scheme should not take effect merely because a decision-maker has failed to determine it within a specified period. The DCO hearing note identifies this concern expressly.

Any determination period should stop where further information is reasonably required, and deemed approval should not operate where a mandatory consultee has raised an unresolved objection.

Later amendments require equivalent control. A final approved plan should not be capable of incremental weakening through repeated “non-material” changes. An amendment should be permitted only where the approving authority is satisfied, following appropriate consultation and on evidence, that it remains within the assessed envelope, does not weaken mitigation, does not affect additional land or third-party rights and does not produce materially new or different effects.

The relevant principle is again straightforward: the DCO must secure the environmental outcome, not merely a process by which the undertaker may later propose a different one.

Part VI – Whole-life powers and liabilities

P.27 Maintenance, replacement and repowering

The legal definition of “maintain” requires particularly close control because the Applicant’s own development description anticipates major replacement programmes during the operational period.

Chapter 4 records that all solar panels may be replaced once, with a complete panel-replacement phase lasting between 12 and 24 months, an average workforce of approximately 129 and a peak workforce of 240. It also assumes that the BESS may be replaced up to five times and that transformers, with an assumed 30-year life, may be

replaced once. Construction routes would be reused and AIL approvals sought later where required.

Those activities are not ordinary maintenance in any meaningful environmental sense. A 12–24 month replacement of all panels resembles a second scheme-wide construction phase. Repeated BESS replacement may involve extensive HGV movements, cranes, temporary storage, hazardous or damaged batteries, waste handling and potentially different battery chemistry or technology.

PINS' section 51 advice has already raised the related drafting issue by asking whether the definition of "maintain" could authorise development with significant environmental effects that had not been assessed.

The DCO must therefore distinguish three concepts: routine maintenance, major replacement and repowering.

Routine maintenance may reasonably encompass repair and like-for-like replacement of individual failed components. Major replacement should be subject to separate environmental controls reflecting the scale of the operation. Repowering—meaning a material increase or alteration in generating or storage capacity, dimensions, technology or hazard profile—should not be capable of being achieved under the maintenance power at all unless separately assessed and authorised.

Replacement equipment should remain within the assessed maximum parameters and should not result in greater noise, heat output, EMF, fire risk, traffic demand or other environmental effect than the equipment assessed. The Environment Agency has separately identified uncertainty over the operational life and decommissioning of cabling, illustrating that whole-life component assumptions are not fully resolved.

The Order should therefore expressly prevent "maintain" from becoming an unexamined power to rebuild or materially re-engineer East Pye during its 60-year life.

P.28 The 60-year period must not be capable of indefinite extension

The Applicant presents the principal solar development as temporary, with an anticipated operational life of 60 years. The LVIA assumes decommissioning commencing in 2091, based upon that 60-year design life, and a further 12–24 month decommissioning period. That temporal limit must be legally precise.

The DCO should identify the event from which the 60-year period runs. It should not be capable of moving according to the date on which individual Sites, substations or BESS elements are commissioned unless that outcome has been expressly assessed.

Revision 2 now confirms that this is not merely a hypothetical drafting concern. Requirement 21 expressly provides for the 60-year period to run separately by reference to final commissioning of "each part" of Work No. 1.

A dispersed Scheme creates obvious ambiguity. If Site 1 begins operation in one year and Site 10 several years later, does each acquire its own 60-year operating period? If the BESS is constructed substantially later than the solar generation, does it receive a fresh 60 years? If panels are comprehensively replaced after 30 or 40 years, does that affect the end date? If only part of the Scheme is initially commissioned, can later commissioning of another part extend the overall life?

The answer should be no unless expressly justified and environmentally assessed.

Replacement should not reset the clock. Nor should delayed implementation enable successive components to extend industrial use across the Order Limits well beyond the period on which the planning and environmental case was presented.

The DCO should therefore contain a single objectively ascertainable operational end date or a clearly defined formula tied to first or final commissioning, together with an absolute long-stop date beyond which the relevant solar and BESS Works may not operate. Any materially later extension should require a fresh statutory consent process.

A development promoted as temporary should not acquire an effectively indefinite life through staggered commissioning and rolling replacement.

P.29 Cessation, abandonment and partial failure

The DCO also needs to regulate outcomes other than successful operation for exactly 60 years followed by orderly decommissioning.

The application itself permits realistic scenarios in which parts of the Scheme may be delayed, omitted or never fully implemented. The BESS has materially different connection status from the solar component. The National Grid solution remains subject to further determination. Partial build-out is therefore not merely theoretical.

The Order should specify what happens if a Site is constructed but never commissioned; if the BESS compound is built but cannot obtain a usable connection; if a solar Site ceases generating permanently; if infrastructure is abandoned after commencement; or if only part of the authorised development proceeds.

Without a cessation mechanism, land could remain fenced, industrialised or burdened by redundant equipment indefinitely even though the public purpose relied upon to justify the development and compulsory powers is no longer being delivered.

BEPS therefore seeks a defined cessation trigger. Where a material component has ceased beneficial operation for a continuous specified period, and the cessation is not caused by temporary maintenance or another objectively justified event, the undertaker should be required either to recommence operation within an approved period or to decommission and restore that component.

The same principle should apply to failed partial development. Unbuilt Works should not preserve land powers indefinitely, while built but stranded infrastructure should not remain simply because the overall DCO has not reached its 60-year endpoint.

The DCO should address failure, not assume it away.

P.30 Decommissioning security

A decommissioning plan is not the same as financial security for decommissioning.

Examination material now indicates that private landowner agreements contain decommissioning securities intended to protect against default or insolvency and capable of periodic revaluation or top-up. That materially changes the evidential position from that understood when BEPS's original objection was prepared.

It does not, however, establish the existence of a coordinated, Scheme-wide, publicly enforceable and independently costed restoration security. The outstanding question is whether the private securities collectively provide adequate and durable funding for the full liabilities arising from removal, soil and drainage reinstatement, contamination remediation, habitat obligations and aftercare, including following transfer or insolvency of the undertaker.

A future DEMP identifies a process. It does not demonstrate that money will be available to implement that process if the undertaker becomes insolvent or abandons the Scheme.

The liability is substantial. It may encompass removal of panels, BESS equipment, transformers, substations and access infrastructure; treatment of damaged or hazardous batteries; cable decisions; soil reinstatement; pollution remediation; habitat protection and restoration; protected-species measures; drainage reinstatement; waste transport and processing; and long-term remedial monitoring.

The Environment Agency has itself identified uncertainty concerning the lifespan and ultimate treatment of below-ground cabling and recommends that future removal be considered during pre-construction design. That illustrates why future end-of-life liabilities cannot responsibly be treated as a simple reversal of construction.

BEPS therefore submits that the DCO should require an independently costed, ring-fenced and insolvency-protected financial security mechanism. The amount should cover the full reasonably foreseeable cost of decommissioning and restoration, be index-linked, independently reviewed at regular intervals and increased where costs or liabilities rise.

The security should be callable upon default, insolvency or failure to comply with a decommissioning obligation. It should bind successors and transferees and should not be released merely because equipment has been removed. Release should occur only

after the responsible authority has certified that the required restoration and remediation have been completed to the specified standard.

The precise form of security can be determined through the Examination. The essential point cannot: the public and affected landowners should not bear the residual risk that a 60-year industrial development becomes financially incapable of restoring the land it occupied.

P.31 Transfer of the benefit of the Order

The transfer provisions require corresponding protection.

A DCO may outlive the original project company and may involve transfer of particular assets or Works to other bodies, notably NGET. That makes clarity over successor liability essential.

Chapter 4 already identifies the risk at the National Grid interface: construction, ownership, operation, environmental compliance and decommissioning responsibilities must not become divided in a way that leaves no identifiable entity responsible for a breach. The WR specifically warns against a situation in which the Applicant says a matter is controlled by NGET, NGET says it was constructed under the Applicant's DCO and the local authority lacks a clear party against whom to enforce.

The same concern applies more generally if the benefit of the Order may be transferred or split.

A transfer must not separate valuable operating assets from environmental liabilities. It must not leave one entity owning the solar plant, another the BESS, another the land or grid infrastructure, while responsibility for common drainage, ecological mitigation, emergency response or decommissioning becomes uncertain. Nor should transfer enable the financial security required from the original undertaker to disappear.

BEPS therefore submits that any transfer of the benefit of the DCO should automatically carry with it every relevant environmental, mitigation, maintenance, monitoring, emergency-response, restoration and decommissioning obligation. Chapter 4 already identifies that requirement in relation to NGET or another transferee.

Where the transfer is substantial, the transferee should also demonstrate adequate technical competence and financial resources, including continuation or replacement of any decommissioning security on terms no weaker than those previously secured.

No transfer should take effect in a way that leaves responsibility fragmented between entities or makes enforcement more difficult. Where the Order is split between undertakers, the DCO should identify expressly which body bears each continuing obligation and, where necessary, impose joint or continuing responsibility for cross-Scheme matters.

The benefit of the Order may be transferable. The liabilities on which its environmental acceptability depends must be equally durable.

Part VIII – Overall CPO/DCO consequences

P.33 The cumulative problem: the Applicant seeks the widest powers before resolving the Scheme

The defects identified in the substantive chapters are not isolated technical disagreements. Taken together, they reveal a more fundamental problem: the Applicant seeks extensive statutory and compulsory powers before it has demonstrated one settled, deliverable and environmentally controlled implementation case.

Chapter 4 identifies unresolved questions about the identity and severability of the authorised development, including the relationship between solar and BESS, optional or omitted Works, the National Grid connection solution, cable flexibility, partial build-out, replacement and decommissioning. Chapters 1 and 5 address the weight of the claimed project-specific benefit and whether less harmful alternatives were properly excluded. Chapter 2 identifies incomplete baseline evidence and excessive reliance on later surveys, plans and approvals. Chapters 8, 11, 15 and 16 identify unresolved protected-species licensing, transport deliverability, soil restoration and ground-condition controls. The cumulative chapter addresses whether those individual uncertainties interact across the Scheme as a whole.

The Applicant's own documents reinforce that concern. The Statement of Reasons accepts that compulsory acquisition requires a clear idea of how the land will be used, that no more land should be acquired than reasonably required, that reasonable alternatives must have been explored and that there must be reasonable prospects of the necessary funds being available. Yet the application simultaneously preserves substantial design and implementation flexibility, relies upon later consents, licences and agreements, and continues negotiations over land and rights. The Commitments Register is itself expressly not a secured document.

The cumulative consequence is that the Applicant seeks extensive coercive powers before it has demonstrated one fixed, deliverable and environmentally controlled implementation case to which those powers can safely attach.

That sequence is wrong. The Scheme should determine the powers required. The powers should not be granted at maximum breadth and the Scheme resolved afterwards.

P.34 The compelling case for compulsory acquisition has not been established

The Applicant's Statement of Reasons correctly recognises that section 122 requires both that the land is required for the Scheme and that there is a compelling case in the

public interest for compulsory acquisition. It further accepts that the land sought must be no more than reasonably required, that reasonable alternatives must have been explored and that funding must have a reasonable prospect of being available.

The present application does not yet demonstrate those propositions for all of the powers sought.

First, important Works remain uncertain or potentially optional. The BESS does not have the same connection status as the solar component. The National Grid solution remains unresolved. Some Sites, substations and cable infrastructure may be omitted or implemented differently. Where the Work itself is not shown to be necessary in the form authorised, the case for compulsorily acquiring the land required solely for that Work is correspondingly weakened.

Secondly, the Applicant seeks powers wider than the minimum interest may require. Its own Statement of Reasons confirms that Option Agreements are already in place for the solar Sites, BESS, project substations and National Grid Substation, while negotiations for leases and rights continue. A need for secure land control does not automatically establish a need for permanent freehold acquisition. Where a lease, permanent right or temporary possession would achieve the authorised purpose, the greater interference requires a separate justification.

Thirdly, unused powers may survive partial implementation. If the BESS does not proceed, if NGET adopts another connection solution, if cable corridors are refined or if some Sites are omitted, the DCO should not continue to burden land for Works no longer required. Compulsory acquisition cannot properly be justified as insurance against every possible future implementation scenario.

Fourthly, NGET's own Relevant Representation materially weakens the necessity case for the National Grid Substation land. NGET states that it understands the replacement connection agreement will not require East Pye to secure the land or consent for the National Grid Substation, and that consent for the proposed substation would not oblige NGET to use it. It also states that the final point-of-connection solution cannot yet be confirmed. That is difficult to reconcile with permanent compulsory acquisition of land for a solution which the future operator has not confirmed.

Fifthly, the funding position remains contingent. The Applicant's own material indicates an estimated project cost of approximately £1 billion–£1.05 billion, with further funding to be sought after consent, the final financing structure not yet determined and final investment decision occurring after DCO grant. PINS has separately raised concerns about the adequacy of funding assurance for compulsory acquisition. The issue is not that project finance must necessarily be fully committed before consent; it is that coercive land powers should not be treated as routine where the final delivery and financing arrangements remain unresolved.

The Applicant's conclusion that national energy policy itself establishes the compelling case is too broad. Its Statement of Reasons ultimately asserts that policy need and

claimed benefits justify acquisition of land and rights across the Scheme. Section 122 requires a more particularised exercise. The question is not merely whether renewable energy serves a public purpose, but whether this land, this interest and this power are necessary and proportionate for the Scheme actually capable of proceeding.

On the present evidence, that has not been demonstrated for the full extent of the compulsory powers sought.

P.35 The draft DCO does not yet provide an adequate control mechanism

The separate DCO question is whether the Order itself ensures that the Scheme ultimately built, operated, replaced and decommissioned remains the Scheme examined.

At present, it does not provide sufficient confidence.

The draft framework combines broad Works and maintenance powers, staged commencement, substantial detailed-design flexibility, later management plans, later licences and external consents. BEPS's DCO hearing analysis records that important mitigation remains subject to later design and that the Commitments Register is not itself secured.

The ExA cannot rely on statements about what the Applicant presently intends to do. The Order must itself control what the undertaker may lawfully do.

That requires six things.

First, the authorised envelope must be bounded by clear and enforceable parameters.

Secondly, mitigation relied upon in the ES must be secured by binding Requirements or equivalent legal mechanisms, not left only in narrative documents or the Commitments Register.

Thirdly, commencement and phasing must be controlled so that preliminary or token works cannot bypass safeguards or preserve materially independent Works indefinitely.

Fourthly, later replacement and maintenance must not permit unassessed repowering or materially different technology.

Fifthly, decommissioning and restoration obligations must be backed by durable financial and successor arrangements rather than assumptions about the continued solvency of the original project company.

Sixthly, powers and obligations must fall away or transfer coherently where Works are omitted, abandoned or transferred.

The issue is not whether post-consent detail is permissible. It plainly is. The issue is whether post-consent processes are being used to implement an acceptable Scheme or to determine whether an acceptable Scheme exists. The latter is not a drafting detail; it is a failure to resolve the development before granting the powers.

Unless those deficiencies are corrected, the draft DCO remains broader than the environmental and deliverability case presently supports.

P.36 Remedies sought

BEPS asks the Examining Authority to require the Applicant, before the close of Examination, to provide a revised DCO and compulsory-acquisition case which resolves the relationship between the Scheme assessed, the Works authorised and the land powers sought.In particular, the Applicant should be required to:

1. tighten the definitions, design parameters and limits of deviation in the draft DCO;
2. provide a Scheme-to-powers schedule and Work-to-ES audit identifying the environmental assessment and land powers supporting every principal Work;
3. correct and reconcile the Works Plans, Land Plans, Book of Reference and other legal plans;
4. identify which Works are mandatory, optional or severable;
5. demonstrate how the Gate 1 BESS and any solar-only or partial implementation scenario are controlled;
6. provide for expiry or release of powers over Works that are not implemented;
7. justify compulsory acquisition plot by plot and interest by interest;
8. remove freehold powers wherever leasehold, rights or temporary possession would adequately secure the authorised purpose;
9. tighten commencement and phasing provisions to prevent environmentally consequential preliminary works and token commencement;
10. provide a complete mitigation-to-Requirement audit;
11. strengthen Requirement discharge, statutory consultation, amendment and enforcement provisions;
12. distinguish routine maintenance from replacement and prohibit unassessed repowering;
13. include clear cessation and abandonment triggers;
14. secure independently costed, index-linked and insolvency-proof decommissioning and restoration security;
15. ensure all environmental and financial liabilities bind transferees and successors; and
16. confirm that participating landowners remain free to give evidence and make representations without contractual or financial penalty.

These remedies are not requests for additional drafting sophistication. They go directly to whether the statutory powers sought are justified and whether the environmental case relied upon is actually secured. The governing principle should be simple:

If the Applicant cannot demonstrate the necessity of a particular Work, land parcel, property interest or statutory power, that power should not be granted. If the environmentally acceptable operation of the Scheme depends upon a mitigation measure, that measure should be secured by the Order.

The DCO should not authorise first and resolve necessity, design, mitigation and financial responsibility later.

Chapter 1

1.1.1 The central question for the Examination

Has the Applicant demonstrated one environmentally coherent and deliverable scheme which has been designed for this particular landscape, or has it assembled a series of topic-specific assessments and mitigation measures around a predetermined 500 MW project, without demonstrating that those solutions are mutually compatible or acceptable when the environment is considered as a whole?

East Pye is not proposed within an environmentally interchangeable landscape. It would be imposed across 1,212.3 hectares of a still recognisably rural and agricultural part of South Norfolk, extending through ten dispersed Sites, numerous Sub-Sites, approximately 24 km of cable corridor, a BESS, multiple substations, a new National Grid Substation and associated highway and grid works. The Applicant's own baseline records rural villages and hamlets, mature hedgerows and trees, rivers and ordinary watercourses, important agricultural soils, County Wildlife Sites and Roadside Nature Reserves, nationally important wildlife sites, numerous Grade I and Grade II* listed buildings, conservation areas and historic settlement patterns within and immediately adjoining the Scheme.

The Applicant's own LVIA confirms that this is not a landscape of uniformly low sensitivity merely because it lacks a national landscape designation. It identifies High sensitivity receptors including the Tas Rural River Valley, Chet Tributary Farmland, Thurlton Tributary Farmland with Parkland and important recreational routes, with the remaining assessed landscape receptors generally of at least Medium sensitivity. The assessment itself predicts numerous significant adverse landscape and visual effects.

The historic, ecological and agricultural qualities of this landscape are also interconnected. Its value does not reside only in individual listed buildings, individual hedgerows, individual bird territories or isolated watercourses. It lies in the surviving relationship between villages and their agricultural hinterland; churches and historic settlements; lanes, footpaths and field patterns; mature hedgerows, trees and woodland; open farmland used by declining farmland birds; river valleys, ditches and groundwater; and land still managed for food production and wildlife. The Scheme is capable of changing those relationships for generations.

That risk cannot be dismissed simply by describing the solar development as temporary. The operational period is proposed to extend for 60 years. More importantly, the Applicant's own landscape assessment assumes that mature woodland, trees, hedgerows and scrub introduced as mitigation may remain after decommissioning, while the National Grid Substation and associated grid infrastructure would also remain. The environmental question is therefore not simply whether solar panels can eventually be removed. It is whether development on this scale would permanently reshape the structure, ecology, historic character and experience of the receiving landscape in order to accommodate it.

That distinction matters because the Environmental Statement repeatedly approaches the Scheme through individual technical disciplines. Landscape harm is addressed through planting. Ecological harm is addressed through habitat creation and management. Highway

problems are deferred to route refinement and haul-road solutions. Drainage problems are addressed through later drainage design. Noise may require barriers, enclosures, relocation or reorientation of plant. Agricultural effects are answered partly by long-term grassland management. Heritage effects are reduced through separation and screening.

Each solution may appear capable of addressing one problem when viewed through the relevant technical chapter. The central difficulty is that the same solution may create another.

New woodland and hedgerows may screen solar infrastructure but permanently enclose an historically open agricultural landscape. The same planting may alter the setting of heritage assets and reduce the openness and sightlines required by ground-nesting and open-country birds. Moving plant to protect a residential receptor may move it towards an ecological, heritage or drainage constraint. Rerouting haul roads to solve highway objections may require additional hedgerow removal, soil disturbance, watercourse crossings or works close to sensitive receptors. Additional drainage infrastructure may occupy land or affect habitats and archaeology. Retaining mitigation planting after decommissioning may preserve newly created habitat while preventing restoration of the former agricultural and historic landscape.

These are not theoretical concerns. They arise from the Applicant's own assessments.

There is also evidence that important methodological assumptions have been derived from generic experience of solar development rather than demonstrated from the particular characteristics of East Pye. Chapter 7, for example, justifies the extent of its visual study area partly on the basis that ‘previous experience of similar types of development’ indicates that a 2 km study area will normally capture significant effects. Chapter 14 similarly states that, because there is no solar-specific socio-economic methodology, its approach is based upon professional judgement, previous experience and good practice.

There is nothing inherently improper about drawing upon professional experience or established methodology. The problem arises if generic assumptions derived from other schemes become substitutes for examining the characteristics of the receiving environment itself.

The landscape threatened by East Pye must be assessed on its own terms. A standard methodology cannot establish that a particular two-kilometre study area captures the effects of a dispersed 1,212-hectare scheme. A standard planting strategy cannot establish that further enclosure is ecologically appropriate within habitat used by open-country birds, or where Countryside Stewardship fields have intentionally created habitat for ground-nesting birds. A generic assumption that solar development is reversible cannot establish restoration where the Applicant assumes that mature planting and permanent grid infrastructure will remain. Nor can the national need for solar generation establish that this particular 500 MW configuration, spread across this particular landscape, represents an environmentally acceptable way of meeting that need.

The design process should therefore be interrogated in the opposite direction from that presented by much of the Environmental Statement. The starting question should not be:

How can a 500 MW East Pye Solar project be fitted into this landscape and its resulting effects mitigated?

It should be:

What form and scale of development, if any, can this landscape accommodate without unacceptable loss of the environmental functions and characteristics which already exist?

That distinction goes to the heart of good design and the mitigation hierarchy. Where significant constraints are identified, the first response should be avoidance and design change, including reduction or removal of development areas where necessary. Screening, management plans, future detailed design and compensation come later. They cannot retrospectively demonstrate that the underlying choice of location, extent and configuration was environmentally appropriate.

This Written Representation therefore asks the Examining Authority to test the Application against one overarching proposition:

Has the Applicant demonstrated a single physically deliverable version of East Pye in which the access strategy, drainage design, landscape mitigation, ecological requirements, heritage protection, soil management, noise mitigation, grid infrastructure, residential protection and decommissioning end state can all coexist within the authorised envelope without creating effects greater than those assessed?

If the answer depends upon different assumptions in different chapters, future design choices which have not been environmentally reconciled, or mitigation measures which solve one problem by creating another, then the Environmental Statement has not yet demonstrated an environmentally coherent Scheme.

That is particularly serious here because the consequence of getting the assessment wrong is not simply a temporary localised impact. It is the potential long-term or even permanent reshaping of an unusually extensive, historically and ecologically important and interconnected rural landscape to accommodate a predetermined transmission-scale ‘temporary’ development.

BEPS submits that this question should sit at the centre of the Examination. The individual objections which follow are not separate complaints about unrelated environmental topics. They are evidence of the same underlying issue: whether East Pye has genuinely been designed around the constraints and carrying capacity of this particular place, or whether the place is being progressively redesigned to accommodate East Pye.

1.1.2 Good design: the appropriate examination framework

BEPS submits that the East Pye Solar Scheme should be examined expressly against the Planning Inspectorate's published **Advice on Good Design for Nationally Significant Infrastructure Projects**, read with section 4.7 of EN-1 (2025).

The relevance of that guidance is direct. The Applicant itself relies upon the Planning Inspectorate's Good Design Advice and states that its Design Approach Document and Design Principles demonstrate how good design has been delivered through the evolution of the Scheme.

The Examination should therefore test that proposition against the criteria which the Planning Inspectorate itself identifies.

The Advice makes clear that good design is not principally an aesthetic exercise. It requires a **holistic approach** which responds to place and takes account of complex environments. A successful design process must be intentional, transparent, iterative, multidisciplinary and deliverable. It must begin with a clear analysis of the context of the place, use environmental information and consultation to inform design choices, explain why those choices were made, and produce an integrated project-wide outcome.

The Advice further states that EIA should inform the design process and that its influence should be clearly articulated, particularly in site and infrastructure appraisal, site selection and alternatives. Where parameters are retained, the assumptions and design principles underpinning those parameters must be clear.

The August 2026 NPPF provides additional contemporary support for that approach. Policy DP3 requires development to respond to the history, character and features of its site and setting, to integrate with and enhance its surroundings and to contribute to nature, movement, compact form and a strong sense of place. Policy DP4 requires design quality to be considered throughout the evolution, assessment and delivery of development and guards against the quality relied upon at consent being materially diminished during subsequent detailed design. Those principles are particularly relevant to East Pye because substantial elements of the final disposition of infrastructure remain within a post-consent design envelope.

1.1.3 The critical distinction: designing for the place or fitting the project into it

This distinction is particularly important for East Pye. The Applicant's own Chapter 5 states that its project-level design principles seek to achieve the Applicant's required levels of energy generation and storage while responding to the local context. It also states that a smaller generating development was not considered further as an alternative. That sequencing requires close examination.

Good design, as defined by PINS, begins with understanding the place, its constraints and opportunities, and allowing that analysis to inform site selection and design evolution. It is not sufficient to establish the required size and technological form of a project first and then seek to accommodate its consequences through buffers, screening, offsets, management plans and later detailed design.

East Pye is proposed across a particularly sensitive and interconnected rural environment. Its historic villages, churches and farmsteads, open agricultural landscape, mature hedgerows, veteran trees, BMV soils, farmland-bird habitat, protected ecological sites, rivers, drainage

systems, dark skies, rural roads and recreational routes are not independent constraints. Together they constitute the place into which the development is proposed.

The question for good design is therefore not simply whether each constraint has been given a mitigation response. It is whether the combined constraints should have resulted in a different development. That may include a different site configuration, removal of particular parcels, relocation of infrastructure, greater avoidance, a materially smaller footprint or, where environmental capacity is exceeded, rejection of development in that location entirely.

1.1.4 Good design requires an integrated solution

The Planning Inspectorate's requirement for an integrated and holistic approach is especially important because East Pye's proposed mitigation measures frequently operate across more than one environmental discipline. Planting introduced to screen development may permanently alter landscape character, heritage setting and open-country bird habitat. An internal haul road introduced to solve a highway objection may affect soils, watercourses, hedgerows, archaeology, cultural heritage setting, and ecological and agricultural receptors. A drainage solution may affect land take, soil, groundwater and aquatic ecology. Noise mitigation may require relocation, barriers or enclosures with corresponding visual, ecological or heritage effects. Retention of mitigation planting after decommissioning may benefit newly created habitats while preventing restoration of the former agricultural and historic landscape.

These interactions are not peripheral to good design. They are precisely why the Planning Inspectorate requires a holistic, multidisciplinary process and an integrated design concept. The Applicant should therefore demonstrate that there is **one environmentally coherent design**, rather than a collection of individual mitigation solutions developed within separate ES disciplines.

1.1.5 Good design must be demonstrated by design evolution

There is also an important difference between mitigation and design. The Applicant records that environmental surveys and consultation resulted in removal or reduction of solar development in some locations. Those are relevant examples of design evolution and should be given appropriate credit. But the Examination must equally identify constraints which did **not** cause the project to change.

For example, the Applicant records that potentially preferable land closer to the Point of Connection was identified but not progressed because the land was not available to the Applicant. It also records that a smaller-capacity Scheme was not considered further. The final Scheme nevertheless remains spread across ten Sites and numerous Sub-Sites and requires approximately 24 km of interconnecting cable corridor.

The PINS good-design test requires more than demonstrating that environmental constraints were mapped. It requires a clear narrative explaining how analysis of those constraints shaped the choices eventually made. Accordingly, for each principal constraint the Applicant should be asked:

What did this constraint actually cause you to change?

If the answer is only a buffer, screening, later management or compensatory habitat, the ExA should ask why avoidance, relocation or reduction was not selected first. Place is an outcome, not merely a receptor

The PINS Advice places particular emphasis upon **place**. It requires a locally contextual design narrative, stewardship of the local landscape, enhancement of local identity and a clear explanation of the quality of place which the completed development will create.

That is a difficult but important question for East Pye Solar**. The Applicant should therefore be required to describe positively the landscape which will exist if the Scheme is built.**

Not simply where panels will be screened, but:

- What will the character of South Norfolk between these villages be?
- What happens to the historic relationship between settlements and their agricultural hinterland?
- What happens to openness?
- What happens to tranquillity and dark skies?
- What becomes of the agricultural identity of the landscape?
- What landscape will walkers and residents experience after the mitigation planting has matured?
- What ecological assemblage will the more enclosed landscape support?
- And what remains after 60 years when the solar equipment is removed but mature landscape mitigation and National Grid infrastructure may remain?

A proposal cannot demonstrate good design merely by reducing the visibility of its infrastructure. The resulting place itself must be coherent.

1.1.6 The examination test

BEPS therefore submits that the Planning Inspectorate's Good Design Advice provides an appropriate framework for examining the Scheme across chapter boundaries.

The Applicant should be required to demonstrate that:

1. the design started from a sufficiently detailed understanding of the particular environmental, historic, agricultural and community context of East Pye.
2. those constraints genuinely influenced site selection, scale and configuration rather than simply influencing subsequent mitigation.
3. consultation and environmental assessment caused identifiable, consistent and material design changes.
4. the design principles resolve competing environmental requirements rather than addressing them independently.
5. the permitted Rochdale Envelope contains at least one physically deliverable design which satisfies all relevant environmental assumptions simultaneously.
6. future design flexibility is sufficiently controlled to prevent later decisions from transferring harm between receptors.

7. the Scheme produces a coherent long-term place rather than relying predominantly upon screening to conceal an industrial development from the landscape in which it has been placed.
8. the proposed post-decommissioning condition is consistent across landscape, ecology, agriculture, heritage and land-use assessments.

The ultimate good-design question is therefore closely aligned with the central question BEPS asks of the Examination:

Has the Applicant demonstrated one integrated, environmentally coherent and deliverable Scheme genuinely designed in response to the particular character and environmental capacity of this area of South Norfolk, or has it sought to reshape that environment to accommodate a predetermined 500 MW development through a series of potentially incompatible topic-specific mitigation measures?

Since this Written Representation was prepared, the National Planning Policy Framework was replaced on 17 August 2026. The Energy NPSs remain the primary policy framework for this NSIP, but the current NPPF is capable of being an important and relevant consideration. It materially reinforces the issues raised in this chapter. In particular, Policy W3 gives substantial weight to relevant energy-security, economic-development and net-zero benefits and states that applicants should not generally be required to demonstrate the overall need for renewable or low-carbon energy development. BEPS therefore does not invite the Examination to impose a separate requirement upon the Applicant to prove generic national need for solar generation. The relevant issue is the weight properly attributable to the benefits of this particular Scheme, the deliverability of the components from which those benefits are said to arise, and whether its particular scale, configuration and environmental effects are acceptable when the NPSs and other relevant policies are applied.

That question should be examined expressly through the Issue Specific Hearing programme and addressed in the Examining Authority's final assessment of good design. ISH1 has materially strengthened this issue. The Applicant confirmed that the Illustrative Masterplan is not the final layout; the number and location of significant 33 kV switch rooms and conversion units remain to detailed design; ancillary operational buildings may be distributed across the Sites; fencing remains subject to further refinement; and material choices remain open concerning project-substation technology and layout. The ExA consequently required further parameters and illustrative material. The good-design question is therefore no longer hypothetical: the Examination must determine whether the DCO secures the design quality relied upon by the Applicant rather than merely an envelope within which that quality is hoped to emerge later.

1.1.7 The Application was required to be environmentally coherent before Examination

There is a key distinction between examining a design and completing one.

EN-1 (2025) requires applications to be ready for examination on submission. The DCO process is front-loaded: Examination should test a coherent, deliverable scheme, not be used to resolve fundamental design deficiencies. At East Pye Solar, many outstanding issues are not minor details but core elements of the physical solution, including access and haul routes, drainage, crossings, plant layout, noise mitigation, ecological measures, lighting, and the interaction of planting with heritage and habitat requirements.

While some flexibility is legitimate, there is a clear difference between refining an assessed scheme and using Examination to find the first environmentally acceptable scheme. If resolving objections requires materially different infrastructure arrangements, the Applicant must demonstrate that a single, internally consistent and fully assessed configuration already exists across all topics.

The Examination should not become an iterative design process. The key question is whether the Application already contains a complete, deliverable solution in which all mitigation measures are mutually compatible.

1.1.8 Residual harm cannot be identified until avoidance and mitigation are exhausted

EN-1 establishes a strict sequence: avoid, reduce, mitigate, then assess residual effects. Only then can CNP policy be applied. At East Pye Solar, national need does not convert avoidable harm into residual harm, and compensation does not reduce the original impact. Before any effect is treated as residual, the Examination should ask whether it could have been avoided through design change—such as site deletion, relocation, alternative routing, or reduced development in constrained areas.

The August 2026 NPPF reinforces that sequencing in particularly clear terms in relation to the natural environment. Policy N2 requires significant biodiversity harm first to be avoided through locating development on an alternative site with less harmful impacts; only where avoidance is not possible does the sequence move through mitigation and, ultimately, compensation. It also requires agricultural land quality and grade to be taken into account and poorer-quality agricultural land to be used where possible. At East Pye those principles are directly relevant because the Applicant's own design history shows that ecological, heritage and agricultural constraints were capable of producing avoidance in some parcels while materially comparable constraints remain within the retained Scheme.

EN-1 does not entitle an applicant to fix capacity and footprint first and then mitigate around them. The correct sequence is: avoid → reduce → mitigate → residual harm → compensation → planning balance (including CNP where applicable)

not: fix scheme → mitigate around it → reclassify remaining harm as residual → rely on CNP.

1.1.9 Precautionary assumptions are not a substitute for avoidance design

Where the Applicant relies on future micrositing or buffers, a precautionary assumption of species or features may be appropriate for assessment, but it is not sufficient for design.

If avoidance depends on location, the Applicant must demonstrate that the location and functional extent of receptors are known with enough precision to ensure avoidance is actually achievable.

It is not enough to assume, for example, that bats, birds, archaeological features or drainage pathways are present somewhere within a broad area and then rely on later refinement to avoid them. This issue was also identified in Lime Down.

The Applicant cannot rely on uncertainty to justify precaution, and then rely on future precision to justify avoidance. Where avoidance is the strategy, spatial certainty is a prerequisite.

1.1.10 The Examination should follow receptors across chapter boundaries

The ES is structured by topic, but effects are experienced by receptors. A single receptor may experience combined effects from multiple chapters: visual change, noise, lighting, traffic, habitat change, and construction disturbance. Individually acceptable effects may combine into a materially different overall experience.

For example:

- Residents may experience visual, noise, lighting, traffic and amenity impacts together.
- Heritage assets may experience combined setting, visual, traffic and construction effects.
- PRoW users may experience continuous exposure to infrastructure, noise, fencing, planting and traffic.
- Ecological receptors may experience habitat loss, edge effects, disturbance and hydrological change together.
- Watercourses may experience cumulative construction and drainage impacts.

The key point is that receptors experience one scheme, not separate ES chapters.

The Examination should therefore assess the combined effect on each receptor, not just the significance of individual topic-based impacts.

This is not standard inter-project cumulative assessment, but internal accumulation within East Pye itself. Without this approach, there is a risk that each chapter appears acceptable in isolation while the overall effect on receptors is never properly assessed.

1.1.11 Selective land removal does not demonstrate a consistently applied mitigation hierarchy

The Applicant relies upon the removal of solar development from a number of parcels as evidence that environmental assessment and consultation materially influenced the Scheme. BEPS accepts that those removals are preferable to retaining development in the affected locations. The difficulty is that the reasons given for removing development in those places recur elsewhere across East Pye, where development has nevertheless been retained.

The issue is therefore not simply whether some land was removed. It is whether the Applicant has applied a **consistent and intelligible threshold for avoidance across the Scheme**.

Chapter 5 provides a particularly clear example at former Sub-Site 3A. Solar infrastructure was removed entirely because of a combination of limited highway access, proximity to Spring Wood Ancient Replanted Woodland and associated bat roosts, part of Spring Wood Hempnall County Wildlife Site, high unexploded-ordnance risk, evidence of a former deer park and the fact that much of the parcel was Grade 2 BMV agricultural land.

Those are legitimate reasons for avoidance. But several of the same classes of constraint remain elsewhere within the Scheme.

Development remains immediately beside or close to ancient woodland and County Wildlife Sites elsewhere in the Order Limits. Site 7, for example, contains development around an exceptionally dense ecological and historic network, including Pope's Wood, D'Oyly's Grove and Saxlingham Grove, together with numerous nearby listed buildings. The Applicant's own design evolution records only partial removal from Sub-Site 7C notwithstanding listed buildings, adjacent residential properties, a PRoW and the need for ecological connectivity with Pope's Wood CWS.

The heritage comparisons are still more revealing.

At Sub-Site 8B, panels were removed from the northern part because Historic England and others raised concerns about elevated land affecting the setting of the Grade II listed Upgate Green Farmhouse. The Applicant describes that removal as necessary to ensure there would be no infringement upon its setting.

Yet development remains at Sub-Site 4B only approximately 45 metres from the Grade I Church of St Michael, 70 metres from the Grade II* Old Rectory and 10 metres from a Grade II listed barn. Site 5 similarly remains approximately 25 metres from the Grade I Church of St Catherine. Site 7 retains development close to numerous listed buildings, including Wood Farmhouse at approximately 30 metres, Grove Farmhouse at approximately 45 metres and several others within 100 metres.

BEPS does not suggest that distance alone determines heritage harm. Topography, orientation, historical association, visibility and the contribution made by setting must all be considered. The point is different: **if heritage sensitivity was sufficient to justify complete or substantial avoidance in one location, the Applicant must explain transparently why equally or more**

highly designated and closely related heritage receptors elsewhere are capable of being addressed merely through buffers, planting or residual assessment.

The same inconsistency arises with residential amenity. At Site 9, development was progressively removed because of effects upon residential properties on Mill Lane and High Green and the relationship with Brooke Conservation Area. Following statutory consultation, panels were removed entirely from the western part of the Site for those reasons.

Yet the final Order Limits retain development extraordinarily close to residential receptors elsewhere: Chapter 3 records dwellings approximately 25 metres from Sub-Site 4B, adjoining or close to Sites 5 and 6, approximately 25–50 metres from Sub-Site 7C, approximately 30 metres from Sub-Site 7D and approximately 15 metres from Sub-Site 7L. The fact that residential proximity prompted avoidance at Site 9 therefore raises an obvious question about the threshold applied elsewhere.

Agricultural land shows the same pattern. Grade 2 BMV land formed one of the reasons for removal of Sub-Site 3A. A discrete Grade 2 parcel close to Ringers Grove was also removed, and removals at Sub-Site 8B and Site 9 happened additionally to remove BMV land.
Those decisions demonstrate that avoiding BMV land was technically possible when the Applicant considered other constraints sufficiently strong. They do not demonstrate a Scheme-wide preference for poorer-quality agricultural land. Large areas of BMV land remain within the final development simply because, elsewhere, that same agricultural constraint has been treated as capable of mitigation or later restoration.

Aviation provides another example of the need for consistency. At Sub-Site 10B, panels were removed from the southern and eastern parts following discussions with Seething Airfield and the Applicant's aviation specialists concerning the consequences of aircraft engine failure. That demonstrates that aviation operational requirements can properly operate as an **avoidance constraint** capable of changing the solar layout. The Examination should therefore scrutinise with equal care the Applicant's response to the materially different but nevertheless substantive operational-safety concerns raised in relation to Tibenham Airfield and Site 1.

These examples matter because isolated land removals can otherwise create a misleading impression of a constraints-led scheme. A design process does not demonstrate effective application of the mitigation hierarchy merely by identifying a handful of locations where development has been deleted. The relevant question is whether the **principle which caused deletion has been applied consistently wherever the same type of constraint occurs**.

Nor is the answer necessarily that every constrained parcel must be removed. Different locations may legitimately produce different outcomes. But where they do, the Applicant should provide the comparative reasoning.

The Examination should therefore require the Applicant to identify, for each material parcel removal:

- the constraint or combination of constraints which triggered avoidance;
- the threshold or professional judgement by which removal was considered necessary;
- every retained development area where the same type of constraint occurs;

- why avoidance was required in the first location but not the second;
- what alternative mitigation is relied upon in the retained location; and
- why that alternative provides an environmentally equivalent or otherwise acceptable outcome.

Without that exercise, the design-evolution record demonstrates **selective avoidance**, not necessarily a consistently applied mitigation hierarchy.

There is a particular risk that the removed areas function as highly visible examples of design responsiveness while the overall scale and configuration of the 500 MW Scheme remain substantially intact. The Applicant's own Chapter 5 states that the project-level design principles are intended to achieve its required levels of energy generation and storage while responding to local context. It is therefore necessary to determine whether environmental constraints were permitted to determine the extent of development, or whether avoidance was applied only where sufficient generating land remained available elsewhere to preserve the predetermined project objective.

That is the distinction between substantive and tokenistic design evolution.

BEPS submits that the Applicant should receive appropriate credit for genuine avoidance where it has occurred. But those examples also establish an evidential benchmark against which the retained Scheme must be judged. If proximity to a heritage asset, residential receptor, ancient woodland, BMV land, flood risk or aviation constraint justified removing panels in one location, the Applicant must explain why materially comparable or more severe constraints elsewhere did not produce the same first-stage response.

Otherwise, the design-evolution exercise does not demonstrate that the environment shaped East Pye. It demonstrates that selected parts of East Pye were adjusted sufficiently to allow the underlying 500 MW Scheme to remain.

1.2 Regional Need and Public Interest (NPS EN-1 §4.2.3; §4.1.2)

National policy establishes a strong need for low-carbon energy infrastructure. The August 2026 NPPF reinforces that position: Policy W3 states that substantial weight should be given to relevant energy-security, economic-development and net-zero benefits and that applicants should not generally be required to demonstrate the overall need for renewable or low-carbon energy development.

BEPS therefore does not contend that the Applicant must prove a separate generic national need for 500 MW of solar generation. The narrower issue is the weight properly attributable to the benefits claimed for East Pye itself. Gate status, regional pipeline evidence and national renewable-energy objectives do not determine whether every component of this Scheme will be delivered as promoted, whether its dispersed configuration represents an environmentally appropriate means of delivering those benefits, whether its associated BESS will become operational on a compatible timetable, or whether claims concerning congestion, curtailment, balancing and consumer benefit are demonstrated by Scheme-specific evidence.

The T7 evidence is relevant for that purpose. It does not establish a statutory cap on further solar development, but it does demonstrate that Gate 2 status should not be treated as evidence of an otherwise unmet regional requirement. BEPS's evidence records approximately 4,015 MW of renewable generation already within the T7 long-term planning pipeline by January 2026, around 96% of it solar, against the 3,300 MW CP2035 Tx+Dx solar modelling envelope. NESO's FOI response records that its Gate 2 "at/over CP2035" assessment used operational capacity only rather than the wider consented and planning pipeline. The significance of that evidence is therefore one of weight and characterisation of Scheme-specific benefit, not a contention that 3,300 MW operates as a legal ceiling.

In T7 (East Anglia), Ofgem RESP/REPD data show approximately **4,015 MW** of renewable generation already in the long-term planning pipeline (in construction, consented or in planning examination by January 2026), of which around **96% is solar**. This already exceeds the CP2035 T7 (Tx + Dx) regional solar modelling envelope of **3,300 MW**.

However, NESO's FOI response confirms that the Gate 2 'at/over CP2035' assessment was conducted using **operational capacity only (552.84 MW at the Gate 2 window close date)** and did not account for consented or in-planning solar capacity. Gate 2 status therefore does not evidence unmet regional need; it evidences compliance with connections-reform criteria based on a narrow operational baseline, and reflects queue reform sequencing rather than spatial system optimisation.

Further, the 13 February 2026 joint industry statement confirms that **formal Gate 2 transmission offers will not be issued until between mid-May 2026 and January 2027**, following further engineering review. At present, East Pye Solar has been **allocated into the Gate 2 cohort**, but has not received or accepted a revised, engineering-confirmed Gate 2 connection offer. Allocation is not equivalent to a binding or deliverable connection agreement.

Where the planning pipeline already meets or exceeds the CP2035 modelling envelope, and where formal connection offers remain subject to ongoing engineering reassessment, further large-scale transmission solar in T7 for 2031 cannot be justified on the basis of regional capacity necessity. Gate 2 allocation does not demonstrate strategic need or confirmed deliverability.

Moreover, East Pye Solar's associated battery storage has secured only **Gate 1**, not Gate 2. This materially undermines any claim that the scheme provides firm flexibility, congestion relief or system balancing in the region. Allocating Gate 2 to generation without secured Gate 2 status for its associated storage increases constraint risk in a region already saturated in planning terms and offers no guaranteed optimisation benefit.

In addition, the scheme's grid connection is dependent upon a **new 400kV substation**, which is entirely scheme-driven and increases engineering complexity. The February 2026 statement makes clear that sequencing of offers will vary based on engineering complexity and scale of reassessment. In those circumstances, the scheme cannot rely on provisional Gate 2 allocation as proof of strategic regional benefit or confirmed grid deliverability.

The evidence does not merely fail to prove that East Pye is uniquely necessary. It positively undermines the Applicant's attempt to derive project-specific necessity from Gate 2 status or from generic national policy. T7 already has a substantial solar pipeline; that pipeline exceeds the published 3,300 MW regional figure relied upon by BEPS; and NESO's Gate 2 regional assessment used operational capacity rather than the wider consented and planning pipeline. The Applicant has therefore not demonstrated any unmet T7 solar requirement which East Pye is needed to satisfy. BEPS does not contend that the 3,300 MW figure is a statutory cap or that Gate 2 status is irrelevant; the point is that neither establishes a project-specific need for East Pye.

The public-interest case required by NPS EN-1 §4.1.2 and §4.2.3 is therefore not demonstrated.

1.2.1Consumer Cost and System Risk (NPS EN-1 §4.1.2)

The absence of demonstrable regional need has direct consumer cost implications. Where planning-pipeline solar capacity in T7 already exceeds the CP2035 modelling envelope, an additional 500 MW transmission-connected solar project requires particular scrutiny as to congestion, curtailment and constraint exposure, because those factors directly affect the useful system value of the additional generation.

The allocation of Gate 2 to generation capacity without secured Gate 2 flexibility or storage capacity compounds that risk. Under NPS EN-1 §4.1.2, decision-makers must have regard to the need to ensure security of supply at the lowest cost to consumers. A scheme which adds generation into an already saturated regional envelope, without secured balancing capability and without a confirmed engineering-backed connection offer, risks imposing avoidable system costs through curtailment and constraint management. EN-1 recognises that security of supply must be delivered at least cost to consumers.

In such circumstances, the claimed system benefit is not demonstrated and the proportionality of environmental, heritage and agricultural harms must be assessed against a materially weakened need case.

The Applicant provides no Scheme-specific evidence demonstrating that East Pye will reduce either consumer bills or whole-system electricity costs. That claim cannot simply be inferred from the generic proposition that solar generation has low marginal costs. The relevant question is whether this particular 500 MW transmission-connected Scheme remains cost-beneficial once the additional transmission infrastructure, new National Grid substation, network reinforcement, balancing requirements, constraint and curtailment costs, BESS charging and round-trip losses, and associated system costs are taken into account. This is particularly important because the Applicant positively asserts that East Pye 'will not cause grid constraints or experience excessive curtailment' at its connection point. That is a project-specific factual assertion and should be evidenced accordingly. The Applicant should therefore disclose the modelling and assumptions underlying it, including the generation profile, relevant network topology and reinforcement dates, competing Gate 2 generation, constraint boundaries, dispatch assumptions, BESS operating strategy, sensitivity years and projected annual curtailment. In the absence of that evidence, the ExA cannot safely give material weight

to affordability as a Scheme benefit. The wider evidence concerning of consumer benefit require scrutiny, but the decisive evidence must come from the Applicant, NESO, Ofgem and National Grid and must demonstrate that East Pye itself produces a net system and consumer benefit rather than merely adding generation and infrastructure costs to an already heavily developed transmission system.

NGET's own Relevant Representation establishes that the final size, design and location of the point-of-connection infrastructure remain undecided; that the wider regulatory and commercial position must first be resolved; and that consent for the Applicant's proposed National Grid Substation would not oblige NGET to use it. The Applicant therefore cannot presently rely upon the proposed Site 1B substation as evidence that East Pye represents an economic, efficient or cost-effective grid connection. Those are precisely the matters NGET says remain to be determined.

1.2.2 Inconsistency with CP2035 Objectives

CP2035 is intended to deliver a secure, cost-effective and balanced electricity system within defined regional envelopes. In T7, the RESP/REPD data show that the planning pipeline already exceeds the 3,300 MW CP2035 (Tx + Dx) solar capacity limit. NESO's FOI response confirms that the Gate 2 'at/over CP2035' assessment was conducted using operational capacity only, excluding consented and in-planning projects.

As a result, Gate 2 allocation does not demonstrate that East Pye is required to remedy an identified T7 solar shortfall or that this particular 500 MW project is necessary to achieve CP2035 objectives; it demonstrates only compliance with connections-reform methodology.

Where:

- The regional planning pipeline already meets or exceeds the CP2035 modelling envelope;
- Formal Gate 2 offers remain subject to ongoing engineering reassessment;
- The scheme depends upon delivery of a new 400kV National Grid substation; and
- The associated battery storage has not secured Gate 2 status;

- it is legitimate to question whether the project is consistent with the core CP2035 objectives of coordinated, cost-efficient and system-balanced deployment.
- On the present evidence, the scheme risks undermining — rather than advancing — CP2035's aims of efficient system design and least-cost delivery.

On the evidence presently available, the Applicant has failed to demonstrate that East Pye is required to meet any identified T7 solar shortfall, that refusal would frustrate the regional pathway, or that the full 500 MW Scheme is necessary in this location. Gate 2 allocation cannot fill that evidential gap because the regional Gate 2 methodology did not take the wider consented and planning pipeline into account (Appendix H).

1.2.3 Congestion, Curtailment and Strategic Positioning Risk

The National Energy System Operator (NESO) has recently warned that 'misalignment between the national wholesale price and locational balancing needs, along with the scale and predictability of congestion, presents significant risks of strategic positioning against constraints,' and that this risk increases where the network becomes more congested. East Anglia is already a structurally constrained transmission region. The T7 (East Anglia) solar pipeline materially exceeds the Clean Power 2035 capacity limit (c. 4,015 MW in the planning/consented pipeline against a 3,300 MW capacity limit), and NSIP-scale transmission-connected solar projects already account for a disproportionate share of regional capacity.

East Pye Solar proposes a further 500 MW transmission-connected scheme in this oversaturated node, reliant on a new 400kV substation and without confirmed Gate 2 BESS flexibility. In these circumstances, approval would add further transmission-connected solar generation into a region already exposed to substantial network constraints, increasing the importance of demonstrating how East Pye's output will be absorbed, stored or exported without materially increasing congestion, curtailment and balancing costs. That outcome is inconsistent with the Clean Power 2030 spatial principle of deploying 'the right projects in the right place at the right time,' and undermines the proportionality balance required under NPS EN-1. Where additional transmission-scale solar materially exacerbates congestion in a region already exceeding system targets, the harms cannot be justified by generic net-zero need.

the Applicant positively asserts that East Pye 'will not cause grid constraints or experience excessive curtailment' at its connection point (statement of Need APP/7.11 Executive Summary, p. 3). That is a project-specific factual assertion and should be evidenced accordingly. The Applicant should therefore disclose the modelling and assumptions underlying it, including the generation profile, relevant network topology and reinforcement dates, competing Gate 2 generation, constraint boundaries, dispatch assumptions, BESS operating strategy, sensitivity years and projected annual curtailment. In the absence of that evidence, the ExA cannot safely give material weight to affordability as a Scheme benefit.

NGET's own Relevant Representation materially weakens the Applicant's claim that East Pye occupies a settled, efficient and low-risk grid position. NGET expressly states that consent for the proposed National Grid Substation would not oblige it to accommodate the Scheme at that substation, that the "wider regulatory and commercial context" must still be worked through before the location can be confirmed, and that the final size, design and location of the connection solution will depend in part on the outcome of other Gate 2 offers. NGET further states that it cannot yet confirm what the final solution will be and that potentially significant additional transmission infrastructure may be required to facilitate East Pye's connection. This is difficult to reconcile with any suggestion that the present Site 1B solution is already demonstrated to be economically efficient, unconstrained or strategically optimal. At best, the Applicant has secured a route to a future connection; it has not established the final network solution, the infrastructure required to deliver it, or the resulting constraint and curtailment consequences. Those uncertainties should substantially reduce the weight attached to

claimed benefits based on assumed grid efficiency, low curtailment and cost-effective strategic positioning.

A further strategic inconsistency arises from the emerging North Anglia Node A connection point on the proposed Norwich–Tilbury transmission reinforcement. The TEC register identifies multiple substantial generation and storage projects with connection arrangements associated with North Anglia Connection Node A. That appears to contemplate a further major 400 kV connection node in South Norfolk on the new transmission infrastructure.

That emerging network configuration materially strengthens the need to scrutinise East Pye's proposed new National Grid Substation at Site 1B. East Pye is promoted as a 60-year 'temporary' solar development, yet the Applicant seeks consent for substantial National Grid infrastructure connecting into the existing 400 kV transmission line, infrastructure which the Applicant itself now accepts may remain after the solar generating station has been decommissioned. At the same time, National Grid appears to be developing a separate strategic connection node on the proposed new transmission line in broadly the same South Norfolk area for multiple future projects.

BEPS does not suggest that the existence of North Anglia Node A necessarily makes East Pye's proposed connection technically impossible or that National Grid can never require more than one substation. The issue is one of strategic necessity, efficiency and proportionality. If a new multi-user 400 kV connection node is already planned on the future transmission network in South Norfolk, the Applicant and NGET should explain why a second new National Grid substation should also be constructed on the existing network at Great Moulton principally to serve East Pye, particularly where East Pye is presented as temporary but the grid infrastructure may remain permanently.

The Examination should therefore require NGET to explain whether North Anglia Node A was considered as part of the connection options for East Pye; whether East Pye could technically connect to that future node or another element of the Norwich–Tilbury reinforcement; what network, programme or cost considerations led to rejection of that option; whether construction of the Site 1B substation remains necessary once the future North Anglia network configuration is taken into account; and whether the permanent infrastructure proposed at Site 1B represents the most economic and efficient long-term network solution rather than a project-specific connection arrangement driven by the timing of East Pye's existing connection agreement.

This is particularly important because NGET has itself stated that the final size, design and location of East Pye's point-of-connection solution remain subject to the wider regulatory and commercial process and that consent for the proposed Site 1B substation would not oblige NGET to use that solution. In those circumstances, the existence of a further planned multi-user connection node in the same part of South Norfolk reinforces BEPS's submission that the strategic necessity, permanence and proportionality of East Pye's proposed National Grid Substation have not yet been demonstrated.

1.2.4 East Pye is one project within the Applicant's much larger development portfolio

The project-specific need case must also be considered in the context of the Applicant's own development portfolio. East Pye is not the Applicant's only prospective contribution to national solar deployment. Island Green Power is a major utility-scale solar developer which is now owned by Macquarie Asset Management. Macquarie states that Island Green Power has a UK pipeline exceeding 15 GW of utility-scale solar and battery-storage projects. Island Green Power's own current portfolio identifies numerous large solar projects in development, including East Pye, The Droves, Lime Down, Green Hill, Humberhead, Arrow Valley and Light Valley, alongside the already consented Cottam and West Burton projects.That context is directly relevant to the weight which should be attributed to assertions of project-specific necessity.

Most importantly, the Applicant is simultaneously promoting **The Droves Solar Farm**, another proposed 500 MW solar project in Norfolk – its DCO application was accepted by the Planning Inspectorate on 16 December 2025.

The Applicant is therefore seeking consent for two separate 500 MW solar NSIPs in Norfolk in the T7 region at broadly the same time: **East Pye and The Droves**. This materially weakens any suggestion that the national need for renewable generation establishes a particular necessity for East Pye. The Applicant is not presenting East Pye as the sole project through which it can contribute to national solar deployment. It is pursuing a portfolio of very large projects, including another 500 MW project in the same county and wider transmission region, as part of a UK development pipeline measured in many gigawatts.

That is important when the Applicant relies upon concepts such as pipeline attrition and optionality. A large development portfolio necessarily creates commercial and system optionality. Some projects may obtain consent, some may be delayed, some may change and some may never proceed. Maintaining multiple prospective projects may therefore be rational from the perspective of the developer or the connections system. But that does not establish that every individual member of the portfolio is necessary. It also does not justify uncertainty for communities or compulsory purchase powers over their land.

Portfolio optionality is not project-specific necessity.

Nor does possible attrition elsewhere establish that the environmental harm of East Pye must be accepted now. The fact that another project might ultimately fail to proceed explains why a developer may wish to preserve multiple options. It does not demonstrate why East Pye must occupy this particular nationally important ecological and historic landscape.

The existence of The Droves makes that distinction particularly acute. If the same Applicant is separately promoting another 500 MW solar NSIP within Norfolk, the Applicant should explain what specific system requirement requires **both** projects, and what identifiable deficit would arise if East Pye were not consented.

It should also explain how the two projects relate to the same wider regional generation pipeline, transmission constraints and CP2035 modelling context. The relevant question is not simply whether each individual project can point to national renewable-energy policy. It is what additional system benefit East Pye provides once the Applicant's own other projects and the wider T7 pipeline are taken into account.

That analysis is especially important because the environmental cost of East Pye is unusually high. The Scheme would extend across ten dispersed Sites within a landscape supporting nationally important bats, multiple barbastelle maternity colonies, ancient woodland, BMV agricultural soils, sensitive water systems, historic conservation villages, ancient churches, listed buildings and substantial admitted landscape effects. The comparison must therefore be project-specific:

What demonstrable public benefit is obtained by consenting East Pye, in addition to the Applicant's other substantial solar projects and the existing regional pipeline, which is sufficient to justify the particular environmental harm of these ten Sites?

The Applicant has not answered that question merely by demonstrating that East Pye is capable of generating 500 MW or that some attrition elsewhere in the national pipeline may occur.

Indeed, Macquarie's acquisition of Island Green Power reinforces the need to distinguish public benefit from commercial portfolio strategy. Macquarie describes Island Green Power as a platform through which it intends to expand its UK renewable-energy activities, while Island Green Power maintains a UK utility-scale solar and storage pipeline exceeding 15 GW. There is nothing improper in that commercial strategy. But the planning system should not equate the commercial value of maintaining multiple development options with proof that each project is environmentally necessary.

The correct conclusion is therefore:

East Pye Solar must justify itself. It cannot derive project-specific necessity merely from the general national need for renewable generation, from the possibility of attrition elsewhere, or from the commercial value of maintaining a large portfolio of prospective solar projects. Possible attrition elsewhere does not establish necessity for East Pye Solar. Unless the Applicant identifies which capacity is assumed to fall away, on what evidence, and what resulting T7 deficit East Pye is required to fill, attrition remains an assumption rather than a project-specific need case.

That is particularly relevant where the Applicant is simultaneously promoting another 500 MW solar NSIP in Norfolk and has a UK utility-scale solar and storage pipeline exceeding 15 GW. The greater the availability of alternative projects within the Applicant's own portfolio and the wider national pipeline, the more important it is to demonstrate why the exceptional environmental cost of East Pye must be incurred in this particular landscape.

1.3 BESS undeliverability

East Pye Solar's claimed deliverability is materially undermined by the instability and asymmetry of its grid position. The project's transmission-connected solar element is in the Gate 2 queue with an indicative 2031 connection date (but no firm offer), yet its co-located BESS – which industry experts have acknowledged is essential to the commercial viability of large NSIP solar in congested transmission regions – remains only in the Gate 1 queue.

Recent reporting on NESO's revised connections timetable confirms ongoing delays, rerunning of engineering studies, and heightened uncertainty across transmission zones, together with no clear pathway for non-protected BESS projects to secure new capacity under the reformed queue. In that context, East Pye's storage element cannot be treated as secured or deliverable, and without firm storage capacity the scheme faces exposure to curtailment, congestion and revenue volatility in an already oversubscribed region. The project is therefore grid-dependent, storage-dependent and timetable-dependent on a reform process NESO itself describes as uncertain.

This materially weakens the claim that there is a reasonable prospect of implementation or a compelling case in the public interest, and strengthens the need for the Examining Authority to scrutinise deliverability, funding realism and financial security with particular care.

Under NESO's Connections Reform process, Gate 2 capacity has been prioritised for projects demonstrably aligned with Clean Power 2030 and already sufficiently advanced. Gate 2 Phase 1 offers (to 2030) have largely been issued to 'protected' or strategically aligned projects, and Gate 2 Phase 2 offers (covering 2031–35) are scheduled for issuance during 2026–27. However, industry reporting on the Gate 2 to Whole Queue outcomes confirms that battery storage is heavily oversubscribed, with only a subset of projects securing Gate 2 status and very limited headroom remaining within the 2035 planning window. Large volumes of storage schemes were reduced to Gate 1 only, with no defined timetable for a further application window under the enduring regime. In that context, East Pye Solar's BESS — which currently holds only Gate 1 status and is located within an already saturated T7 transmission region — cannot reasonably demonstrate a realistic prospect of securing a Gate 2 offer before 2035, if at all. Without Gate 2 allocation, the BESS lacks confirmed transmission capacity and therefore cannot be treated as deliverable under NPS EN-1 requirements that projects demonstrate a credible grid connection and implementation pathway. The project's reliance on unconfirmed future Gate 2 capacity renders the claimed flexibility, congestion mitigation and system-balancing benefits speculative rather than secured.

The position of the proposed 500 MW BESS is materially different from that of the solar generating element. The solar element has progressed through Gate 2, whereas the BESS remains at Gate 1. The issue is therefore not whether battery storage has generic national value, but whether the particular East Pye BESS has a demonstrated route to connection and whether the integrated solar-plus-storage benefits attributed to the Scheme are reasonably capable of being delivered.

The regional position is highly constrained. NESO's February 2026 EIR response records 784 MW of T7 Gate 2 battery capacity for the first relevant period and 927.6 MW for 2031–35, giving 1,711.6 MW in total, against connections-reform allocations of 200 MW and 200 MW respectively. Existing Gate 2 battery capacity is therefore approximately 4.28 times the combined 400 MW T7 allocation. NESO expressly identifies significant battery oversupply and records a further 4,283.1 MW of T7 Gate 1 battery projects which did not satisfy the relevant Gate 2 strategic-alignment or protection requirements.

NESO's June 2026 methodology expressly states that, where an application relies upon ordinary CP2030 capacity alignment in a technology zone oversupplied both zonally and nationally, NESO may determine that the relevant project technology stage has failed Strategic Alignment before detailed checks or queue formation. That provision does not apply where the project instead benefits from a protection or Project Designation.

This is directly relevant to East Pye because its BESS remains Gate 1 in a materially oversupplied T7 battery zone, while no applicable protection or designation has been identified.

The wider national position is also material. Ofgem's September 2026 evidence indicates that operational and prioritised battery capacity substantially exceeds projected 2035 system requirements. That does not mean that every additional battery project is unnecessary, but it makes the route by which a further Gate 1 project is expected to enter the prioritised queue a material project-specific question.

NESO's protection methodology is particularly important. Projects which progressed through the connections reform process under specified protection clauses may receive Gate 2 despite zonal permitted capacity having been exceeded. East Pye is not in the same position as earlier protected projects merely because its solar element has Gate 2. NESO's methodology expressly allows the protected and unprotected elements of hybrid projects to be treated separately.

For staged or hybrid projects, the methodology expressly provides that if one stage or technology meets the Gate 2 Strategic Alignment Criteria and another does not, only the qualifying stage or technology receives Gate 2. The solar element's Gate 2 status therefore does not itself confer Gate 2 upon the BESS.

East Pye's DCO application was not submitted until 2026. It therefore cannot satisfy the planning-submission date required for Protection Clause 3a, and it was likewise not submitted and validated by the earlier date required for Clause 3b. Protection Clause 2b remains theoretically available only if the BESS obtains one of the qualifying support or procurement arrangements specified by NESO. No evidence presently identified by BEPS demonstrates that East Pye BESS holds such an arrangement.

NESO's published connections-reform position is that there is presently no ordinary permitted capacity for additional batteries in future windows unless a project qualifies through an applicable protection route, more than approximately 55 GW of existing Gate 2 battery capacity exits the pipeline, or future strategic planning materially increases permitted battery capacity. Project designation provides a further exceptional route in qualifying circumstances, but the Applicant has not demonstrated that East Pye satisfies the current designation criteria.

The correct examination question is therefore not whether Gate 2 is legally impossible. It is: **what presently identifiable route does the Applicant rely upon for this particular 500 MW Gate 1 BESS to become connected and operational, and on what timetable?**

That question is material because East Pye is promoted as an integrated solar-plus-storage project. The Examination should distinguish between physical co-location within the same DCO and electrical and temporal co-deliverability. The presence of the BESS within the Order Limits does not establish that it will connect, commission or operate contemporaneously with the solar generation.

The Applicant should therefore identify and assess the reasonable implementation scenarios permitted by the DCO, including solar becoming operational materially before the BESS, delayed or reduced BESS, a differently configured BESS, and solar proceeding for all or a substantial part of its operational life without Work No. 2. For each scenario it should identify which claimed benefits remain, which are deferred or lost, and whether the environmental assessment, electrical design, replacement assumptions and DCO controls remain robust.

The benefits attributed to East Pye should correspondingly be disaggregated. The solar-generation benefit is available if the solar element proceeds, but flexibility and balancing benefits attributed to the BESS depend upon the storage component obtaining a connection and becoming operational. Claimed co-location benefits depend upon both elements operating on compatible timescales. Claimed reductions in curtailment require evidence that the BESS will actually be connected when required and can operate in the manner assumed. Wider system-cost or consumer benefits attributed to storage cannot simply be inferred from the inclusion of a BESS within the DCO.

The weight given to those claimed benefits should therefore reflect the demonstrated deliverability of the BESS rather than its physical inclusion within the application.

1.4 Deliverability Challenges of large-scale standalone solar

Industry evidence from the UK solar sector further underscores the systemic economic and deliverability challenges posed by large-scale standalone solar in a congested market. According to a Solar Power Portal article discussing outcomes from the Solar Finance & Investment Europe summit, ‘Panellists agreed that standalone solar is becoming more challenging. Folgado said returns are tightening as cannibalisation and negative pricing increase. ‘Solar co-located with batteries makes sense,’ he said. ‘Standalone solar is much tougher.’’ This admission from market participants confirms that as transmission-connected solar capacity proliferates and cannibalisation effects intensify, standalone solar projects face materially reduced economic returns and heightened risk of negative pricing. In the context of the Clean Power 2030 pipeline and **gate-based grid access reforms**, such realities further diminish the justification for advancing new standalone solar capacity in this region, particularly where congestion, curtailment, and negative wholesale pricing already undermine revenue certainty and project deliverability.

This market evidence is relied upon only as contextual evidence of the importance of storage, curtailment and revenue cannibalisation to the deliverability of large-scale solar. It is not relied upon as proof that East Pye itself is commercially unviable.

1.5 Negative Pricing

The experience in Spain demonstrates that very large volumes of solar capacity can create system-level problems where deployment runs ahead of grid capacity, storage, flexible demand and locational need. The result is not simply cheaper electricity, but increasing negative-price periods, curtailment, distressed asset values and pressure for further network and storage investment. This is directly relevant to the planning balance for East Pye Solar, because the applicant relies heavily on a generic national need for solar generation, while failing to demonstrate a specific regional or locational need for this scheme, or that its co-located storage will be available in time to make the solar generation genuinely useful to the system.

The Secretary of State should therefore be cautious about treating nameplate solar capacity as equivalent to deliverable public benefit. The relevant benefit is not the theoretical maximum output of the panels, but the extent to which the electricity can be absorbed by the grid, stored, exported, or matched to demand at the time it is generated. Where grid connection, storage, curtailment and regional need are uncertain, the public benefit should be reduced accordingly in the planning balance.

BEPS does not contend that the Spanish market provides a direct forecast for Great Britain. The comparison illustrates the general system consequence of adding large quantities of coincident solar output without equivalent network, storage and demand flexibility. The Scheme-specific issue remains whether East Pye's claimed curtailment, balancing and consumer benefits are supported by evidence for T7 and by a deliverable BESS.

1.6 Compulsory Acquisition and Protected-Species Licensing: Consequences of Unproven Locational Necessity

1.6.1 Compulsory Acquisition – No Compelling Case in the Public Interest

Under **Planning Act 2008 s122(3)**, compulsory acquisition powers may only be granted where there is a **'compelling case in the public interest.'** This is a high statutory threshold. The Secretary of State must be satisfied that:

- There is a compelling case in the public interest for the land to be acquired;
- The interference with private rights is proportionate; and
- The public benefits clearly outweigh the private harm.

NPS EN-1 §4.1.2 and §4.2.3 require a compelling public-interest case linked to national need. Where regional solar capacity in T7 already meets or exceeds the CP2035 modelling envelope (as evidenced by RESP/REPD pipeline data), and where Gate 2 status reflects queue methodology rather than unmet regional need, that compelling case is materially weakened.

Compulsory acquisition would:

- Permanently interfere with agricultural land interests;

- Override landowner rights;
- Sterilise Best and Most Versatile land;
- Impact private water supplies, fibre infrastructure and farming businesses.

The T7 evidence does not by itself determine the section 122 question. Its relevance is to the weight and certainty of the public benefits relied upon by the Applicant. The section 122 test remains whether the particular land or interest is required for the development and whether there is a compelling case in the public interest for its compulsory acquisition. Where material components of the Scheme remain optional, severable or dependent upon unresolved connection arrangements, and where the benefits attributed to those components remain contingent, that uncertainty is relevant to whether the particular compulsory powers sought have been justified.

The compulsory-acquisition case must therefore be made plot by plot and interest by interest against the Scheme actually capable of proceeding. Generic national renewable-energy policy cannot by itself establish why permanent freehold, rather than a lesser right or temporary interest, is necessary over a particular parcel.

1.6.2 European Protected Species licensing – no satisfactory alternative and unresolved favourable-conservation-status test

East Pye Solar engages European Protected Species licensing principally because of its potential effects on bats, including barbastelle, and potentially other species such as great crested newt. White-clawed crayfish are subject to separate statutory protection and conservation duties but should not be described as a European Protected Species for the purposes of this licensing test.

Under Regulation 55 of the Conservation of Habitats and Species Regulations 2017, a licence affecting a European Protected Species may be granted only for one of the purposes specified in Regulation 55(2) and only where the licensing authority is also satisfied that there is **no satisfactory alternative** and that the authorised action **will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range**. Natural England describes the three licensing tests in equivalent terms: the activity must be for an eligible purpose, there must be no satisfactory alternative causing less harm, and the activity must not harm the long-term conservation status of the species.

For development of this kind, the Applicant may seek to rely upon the public-interest purpose within Regulation 55(2). That is distinct from the separate Habitats Regulations Assessment derogation regime for European sites, under which IROPI forms part of the alternative-solutions/IROPI/compensation sequence. The two regimes should not be conflated.

The decisive difficulty for East Pye is therefore not an abstract assertion that renewable energy cannot serve a statutory purpose. It is whether the Applicant can demonstrate, on the evidence of this particular Scheme, both that there is **no satisfactory less-damaging alternative** and that the Scheme will not adversely affect the favourable conservation status of the protected species concerned.

The first of those questions is especially important because the Applicant has not demonstrated that this particular 500 MW development must occupy this particular landscape. Chapter 5 of this Written Representation shows that the broad project scale was fixed before full environmental optimisation; that the land search was substantially shaped by land availability and grid opportunity; that smaller configurations were not meaningfully pursued; and that the Applicant has not demonstrated a South Norfolk-specific or T7-specific necessity for the whole retained Scheme.

That matters directly to the 'no satisfactory alternative' test. The relevant alternatives are not confined to minor micrositing around individual roost trees after the Scheme has already been fixed. They include materially less damaging layouts, removal of development from the most important maternity-colony support landscapes, reduction in scale, alternative routing and, where necessary, alternative locations.

The Applicant's own design history confirms that removal of development is technically possible where it is judged necessary. Development has been deleted or reduced in response to ancient woodland, bat, heritage, BMV, residential and aviation constraints in some locations while materially similar constraints remain elsewhere. That makes it particularly important for the Applicant to demonstrate why avoidance of protected-species habitat elsewhere is not a satisfactory alternative.

The favourable-conservation-status test is still more problematic.

The Applicant's own surveys identify the bat assemblage across the Order Limits as being of **national importance**. Barbastelle was recorded throughout the Scheme, with extensive activity across the development landscape. The Applicant also identifies multiple maternity colonies and accepts that the Order Limits lie within overlapping Core Sustenance Zones.

The Norfolk Barbastelle Study Group has since provided further evidence confirming a maternity colony at Little Wood and indicating probable additional maternity colonies at Brooke Wood and Lower Spring Wood. Critically, the Study Group states that further radiotracking and woodland assessment are required before the full distribution and functional habitat use of the maternity-colony network can be established.

The present problem is therefore evidentially fundamental. The Applicant is asking the decision-maker to proceed before the full maternity-colony baseline, principal commuting routes, foraging areas, alternative roost networks and functional relationships between overlapping colonies have been established.

That uncertainty cannot properly be treated as evidence that favourable conservation status will be maintained.

The relevant receptor is not simply an individual roost tree. The evidence indicates a landscape-scale barbastelle metapopulation dependent upon interconnected woodland, mature hedgerows, tree lines, dark corridors, ponds, streams and agricultural foraging habitat. The Scheme would introduce panel arrays, fencing, lighting, access works, repeated hedgerow crossings, substations, cable corridors, construction disturbance and long-term habitat change across that functional landscape.

Natural England has itself emphasised, in another Norfolk bat case, that the developer must demonstrate both that there is no satisfactory alternative and that the conservation status of the bats will not be negatively affected. Those tests require evidence, not an assumption that later licensing will resolve the problem.

A future EPS licence application therefore cannot be treated as routine post-consent administration. Before development consent is granted, there must be a sufficiently robust evidential basis for concluding that any necessary licence has a realistic prospect of being granted. At East Pye, that requires a substantially clearer understanding of the protected-species population and its functional habitat than is presently available.

The Applicant's reliance upon generic buffers, future management plans, retained hedgerows and later protected-species licensing does not answer either statutory question. Retention of habitat features does not prove that they will remain functionally usable; nor does habitat creation elsewhere demonstrate that disruption of established maternity-colony support habitat will leave the population at favourable conservation status.

The consequence is not that BEPS must prove now that an EPS licence could never be granted. The burden is narrower. The Applicant must demonstrate a sufficiently evidenced and realistic licensing pathway before consent is granted. On the present evidence, it has not done so.

The position is especially serious because the outstanding information is capable of changing the Scheme itself. Further radiotracking may identify principal commuting routes, foraging areas or maternity-colony support habitat requiring additional avoidance or deletion of development. Once the DCO has fixed the development envelope and compulsory powers, later survey cannot provide the same opportunity for genuine avoidance.

The correct conclusion is therefore:

East Pye has not yet demonstrated that there is no satisfactory less-damaging alternative to development affecting the nationally important barbastelle landscape, nor that the Scheme can proceed without detriment to the maintenance of the affected populations at favourable conservation status. Those are statutory licensing questions, not matters that can safely be assumed away through future mitigation. Until the maternity-colony and functional-habitat baseline is sufficiently complete to answer them, the protected-species licensing pathway remains materially uncertain and the Application is premature.

1.6.3. Proportionality and the separate statutory tests

Both compulsory acquisition and EPS licensing involve significant interference with private rights and protected ecological interests. In public law terms, such interference must be proportionate. If:

- The CP2035 regional envelope is already met;
- Gate 2 allocation does not demonstrate unmet need;
- The associated battery storage lacks secured Gate 2 status and may be undeliverable;

- The scheme increases congestion risk in an already saturated region;

then the incremental public benefit of this particular scheme is marginal at best. In those circumstances:

- The proportionality balance shifts;
- those uncertainties materially affect the weight and evidence available when the relevant statutory tests are applied.

Where materially less damaging alternatives have not been adequately considered, or where the component said to justify land acquisition or environmental interference is not shown to be deliverable, those uncertainties bear upon the relevant statutory test.

1.6.4. Conclusion

Compulsory acquisition powers and EPS licences are not routine planning tools; they are exceptional legal mechanisms justified only by demonstrable public necessity.

Where:

- Regional solar capacity consented or ahead of it in Planning already meets or exceeds CP2035 capacity limits;
- Gate 2 allocation does not evidence unmet need;
- Engineering-confirmed connection offers have not yet been issued;
- Associated storage lacks secured Gate 2 status;
- The scheme is promoted for ‘optionality’ and in case of ‘attrition’

the scheme cannot demonstrate a compelling case in the public interest. The Applicant must satisfy the relevant statutory tests on their own terms, using the actual Scheme and the alternatives reasonably available to it. Generic national renewable-energy need does not answer whether a particular land interest is necessary under section 122, nor whether a less damaging satisfactory alternative exists for the purposes of any required EPS licence.

1.7 Availability of Alternative Regions with Unmet Capacity Envelopes

National renewable energy need is not geographically fixed to a single transmission region. Electricity generated at transmission level is distributed across the national network. Accordingly, large-scale transmission-connected solar projects are not inherently constrained to any one region unless there is demonstrable regional capacity necessity.

Publicly available CP2035 modelling identifies regional capacity envelopes for transmission and distribution (Tx + Dx). In T7 (East Anglia), the long-term planning pipeline already exceeds the 3,300 MW modelling envelope when consented, in-construction and in-examination projects are taken into account (as if Jan 2025). By contrast, other transmission regions remain below their respective modelling envelopes.

This establishes two uncontested propositions:

1. Solar deployment is regionally uneven;
2. Additional transmission-connected solar capacity is not uniquely required in T7 in order to meet national objectives.

Where some regions remain below their modelling envelopes, while T7 exceeds its envelope in planning terms, it follows that large-scale solar generation is capable of being delivered elsewhere without adding to cumulative saturation in T7.

This is not an argument that renewable generation is unnecessary. It is an argument that the applicant has not demonstrated why this scale of transmission-connected development must be located in a region where the modelling envelope is already met or exceeded by projects already consented or in planning by January 2026 according to T7 tResp.

In a nationally networked electricity system, the rational and proportionate approach to deployment is to direct additional large-scale infrastructure toward regions where modelling envelopes have not yet been met, particularly where doing so would avoid cumulative environmental, agricultural and heritage harm in already saturated areas. Accordingly, there is no locational necessity inherent in T7 unless regional capacity deficiency is demonstrated.

In the absence of evidence that T7 requires additional large-scale transmission solar to meet national targets, the applicant has not demonstrated why the project could not, and should not, have been brought forward in an alternative transmission region where capacity remains below modelling thresholds. T7 is primarily designed to facilitate the transmission of offshore wind – this is why it has relatively low solar 'capacity limits' (NESO's terminology). Offshore wind will prioritised, causing excess solar to be constrained.

Conclusion

The question is not whether the UK requires renewable energy. It does. The question is whether this particular 500 MW transmission-connected scheme, in an already oversubscribed and highly constrained transmission region, represents a proportionate, cost-efficient and strategically necessary deployment. On the present evidence, it does not.

1.8 Grid Capacity, Gate 2 Allocation and Deliverability Failure

East Pye Solar cannot demonstrate regional necessity or secured grid deliverability. The T7 transmission region already contains approximately 4,015 MW of renewable generation within the planning and long-term pipeline, materially exceeding NESO's CP2035 T7 (Tx + Dx) capacity limit of 3,300 MW. NESO has confirmed that its oversubscription assessment for Gate 2 allocation was based on operational capacity (c.552.84 MW) rather than pipeline capacity. Accordingly, the fact that East Pye has received Gate 2 status for its generation component does not demonstrate alignment with regional need under Clean Power 2030 or CP2035; it reflects a methodological approach that disregarded already consented and pipeline schemes.

Gate 2 allocation is therefore not evidence of necessity. It cannot itself establish an unmet regional solar deficit, project-specific locational necessity, or that East Pye is uniquely required. That distinction is decisive. Gate 2 demonstrates progression through the connections process under the methodology NESO applied. It does not answer the planning question whether a further 500 MW solar NSIP is needed in T7 in excess of the regional capacity limits, whether refusal of East Pye would create any regional shortfall, or why this particular Scheme should be located in this highly constrained landscape.

Industry evidence further confirms that additional standalone transmission-connected solar in saturated regions is economically and systemically problematic. As reported in Solar Power Portal:

'Panellists agreed that standalone solar is becoming more challenging. Folgado said returns are tightening as cannibalisation and negative pricing increase. "Solar co-located with batteries makes sense," he said. "Standalone solar is much tougher."'

This admission from market participants demonstrates that excess transmission-connected solar increases cannibalisation and negative pricing, heightens curtailment risk, and reduces effective system value. In an already oversubscribed region, additional large-scale standalone solar risks exacerbating congestion and constraint payments, transferring costs to consumers while delivering diminishing marginal benefit.

Crucially, East Pye's BESS does not hold Gate 2 status. Under NESO's Connections Reform process, Battery storage has proven heavily oversubscribed, with only a subset of projects securing Gate 2 offers in the 2030–2035 window. Large volumes of BESS schemes have been reduced to Gate 1 only, and no defined timetable exists for additional Gate 2 application windows under the enduring regime. In that context, East Pye's BESS — located within an already saturated T7 transmission region — cannot demonstrate a realistic prospect of securing Gate 2 allocation before 2035, if at all.

Without Gate 2 allocation, the BESS lacks confirmed transmission capacity and cannot be relied upon to mitigate congestion, smooth output, or address cannibalisation effects. The project therefore functions, in practical terms, as a standalone transmission-connected solar scheme in an oversaturated region — precisely the project type identified by industry itself as 'much tougher' under current market conditions.

At a Solar Power Portal webinar in January 2026, analyst Josh Cornes said: 'There are a lot of projects that are unfeasible without both solar and BESS, wind and BESS co-location, and because NESO haven't looked at them as one project, they've looked at them as two different things, they've given Gate 1s to mainly BESS and Gate 2 to the solar side of things, but obviously without the BESS, the solar can't be built … these projects just aren't feasible without both technologies.'

(https://www.solarpowerportal.co.uk/solar-planning/video-what-does-grid-connection-reform-mean-for-uk-solar-and-bess-developers).

Under **NPS EN-1 (2023)**, nationally significant infrastructure must demonstrate a compelling case in the public interest and a credible pathway to delivery. A scheme that:

- Exceeds regional planning capacity limits,
- Increases congestion in a saturated transmission zone,
- Faces tightening economics due to cannibalisation and negative pricing, and
- Relies on speculative future Gate 2 capacity for its storage component

cannot demonstrate secured system need, locational necessity, or deliverability. The claimed 500 MW public benefit is therefore not equivalent to 500 MW of reliably delivered or economically efficient capacity.

In these circumstances, the extensive environmental, heritage, ecological and community harms identified elsewhere in this objection cannot be justified as proportionate to any demonstrable regional system requirement.

The Applicant cannot place generic national renewable need on one side of the balance and the specific environmental harms of East Pye Solar on the other. The relevant benefit is the demonstrated public benefit of East Pye Solar itself. On the present evidence, no specific T7 deficit requiring East Pye has been identified

1.9 Deliverability Risks

In addition to the above deliverability risks, East Pye Solar faces multiple, interconnected others, arising from the exceptionally constrained site it has chosen. Most of the land parcels are impacted by several of these constraints at the same time. These are minimised in the chapter-by-chapter structure of East Pye Solar's own application, but patently evident from the land-parcel specific written representations made by BEPS/affected Parish Councils.

1.9.1 Deliverability Risk: European Protected Species Licensing

East Pye Solar faces a material protected-species licensing risk because the Scheme lies within the functional landscape of a nationally important bat assemblage, including multiple barbastelle maternity colonies and overlapping Core Sustenance Zones. The Applicant's own surveys establish widespread barbastelle activity across the Order Limits, while the Norfolk Barbastelle Study Group considers further radiotracking and woodland survey necessary before the maternity-colony network and its functional habitat use are fully understood.

Where works risk an offence affecting European Protected Species, any necessary licence must satisfy the statutory tests, including no satisfactory alternative and maintenance of the species at favourable conservation status. The issue for the DCO Examination is therefore whether there is a sufficiently robust evidential basis to conclude that any required licence has a realistic prospect of being granted.

At present, that confidence is not established. The Applicant has not yet demonstrated the complete distribution of maternity colonies, the principal commuting and foraging

routes, or the cumulative effects of development across overlapping colony landscapes. Nor has it demonstrated why less damaging alternatives—including deletion, relocation or reduction of development within important supporting habitat—are unavailable.

The licensing issue should therefore not be deferred on the assumption that later survey and mitigation will resolve it. Further survey may identify habitat whose importance requires avoidance or materially different design. That information is relevant now, before the development envelope is authorised.

The correct conclusion is not that an EPS licence can never be granted. It is that, on the present evidence, the Applicant has not demonstrated a sufficiently secure licensing pathway to enable the Scheme's deliverability to be assumed.

1.9.2 Deliverability Risk: Water Environment and WFD Compliance

East Pye Solar raises a material WFD and water-environment risk because substantial parts of the Scheme are hydrologically connected to the River Tas, Hempnall Beck and associated ditch and groundwater systems. The Environment Agency continues to identify unresolved matters concerning groundwater, watercourse crossings, piling, cabling, pollution prevention, fisheries, aquatic ecology and private and public water supplies.

The relevant question is not whether BEPS can prove in advance that WFD deterioration will occur. It is whether the Applicant has provided sufficient evidence to enable the competent authority to determine, with appropriate confidence, that the authorised Scheme will comply with the applicable no-deterioration and waterbody-objective requirements.

That has not yet been demonstrated.

Important components of the hydrogeological case remain dependent on future investigation, including Foundation Works Risk Assessments and potentially HDD-specific hydrogeological assessment. The aquatic baseline has also been affected by dry survey conditions and incomplete species evidence.

The consequence is therefore evidential and regulatory: the Applicant has not yet closed the pathway by which piling, trenching, HDD, drainage change, sediment mobilisation or pollution could affect connected waterbodies. Until it does so, the Examining Authority should not assume that WFD compliance or the claimed negligible residual water effects are secured.

If the outstanding evidence ultimately demonstrates a risk of prohibited deterioration that cannot be avoided or brought within the applicable regulatory framework, that would constrain consent. At present, however, the immediate problem is that the evidence required to reach the necessary conclusion is incomplete.

1.9.3 Deliverability Risk: Private Water Supplies and Aquifer Protection

The Scheme affects Principal Aquifer areas and lies close to clusters of private water supplies. The Environment Agency has repeatedly required greater clarity regarding abstraction locations, groundwater pathways, piling, underground cables, contamination and private and public water supplies.

The Applicant therefore needs to demonstrate that construction and operation will not create unacceptable risks to drinking-water receptors through preferential pathways, contamination mobilisation, altered recharge, transformer oil, BESS-related pollutants or contaminated firewater.

On the present evidence, that demonstration is incomplete. In particular, the available material does not provide a receptor-specific hydrogeological assessment for every potentially affected supply showing abstraction depth, aquifer unit, hydraulic connectivity, flow direction and relevant pollutant pathways.

The correct conclusion is not that any theoretical risk to a private supply makes the Scheme unlawful. It is that the DCO should not proceed on an assumption of negligible effect where the receptor and pathway evidence required to support that conclusion remains incomplete.

Where a private drinking-water supply could be affected, avoidance and protection must be demonstrated before consent or secured through sufficiently precise controls. If an acceptable protective solution cannot be demonstrated for a particular location or activity, that element of the Scheme should be redesigned or removed.

1.9.4 Deliverability Risk: Major Accidents and Disasters – Site 1 Infrastructure Cluster

Site 1 combines a proposed National Grid 400 kV substation, a 400 kV project substation and BESS infrastructure within a sensitive rural and hydrogeological setting. That concentration creates credible accident and pollution pathways involving transformer oil, battery fire, contaminated firewater, emergency access and potential interaction with surrounding receptors.

The Environmental Statement must therefore demonstrate that reasonably foreseeable major-accident scenarios have been adequately assessed and that the design and DCO controls are capable of reducing the resulting environmental effects to an acceptable level.

At present, important engineering parameters and emergency arrangements remain dependent on later design. The Environment Agency has required further detail concerning BESS and substation pollution control, and Norfolk Fire and Rescue has raised matters concerning emergency response.

The issue is not that the presence of BESS or 400 kV infrastructure itself prevents consent. It is that the Applicant cannot rely on a conclusion of negligible or not significant effect until the relevant containment, drainage, access and emergency assumptions are sufficiently defined and secured.

If those matters cannot be resolved within the assessed envelope, the infrastructure cluster would require redesign. Until they are resolved, the claimed residual safety and pollution effects remain mitigation-dependent rather than established.

ExQ1 has now independently required the Applicant to explain why aspects of BESS fire safety remain dependent upon later assessment and design. That reinforces BEPS's existing point that a future safety-management plan cannot substitute for establishing at examination stage that the authorised configuration has an acceptable maximum-case risk profile.

1.9.5 Deliverability Risk: Aviation Safeguarding and Glint/Glare

Site 1 lies within the operational environment of Tibenham Airfield. Norfolk Gliding Club continues to raise substantive concerns regarding glint and glare, thermal effects, engine-failure emergency landing and bird-strike risk, and argues that the Applicant's assessment does not adequately reflect actual gliding and powered-aircraft operations.

These concerns require resolution because aviation safety cannot be reduced to an ordinary visual-amenity issue.

The correct examination question is whether the Applicant has demonstrated, on the final layout and infrastructure parameters, that the Scheme can coexist safely with actual Tibenham operations and that any necessary mitigation is effective and secured.

Where significant design changes have occurred since earlier aviation work—including changes to substation voltage, height and grid infrastructure—the Applicant should demonstrate that the final worst case has been assessed.

The existence of an unresolved aviation objection does not itself prove that consent is legally impossible. It does mean that the Examining Authority should not assume the aviation case is closed while the airfield operator continues to identify credible safety mechanisms that it says have not been adequately assessed.

If those concerns cannot be resolved through evidence or design change, that would become a serious constraint on the acceptability and deliverability of Site 1.

ISH1 materially widened the aviation issue beyond glint and glare. The ExA required the Applicant to identify which aviation effects had been scoped out and why, and to provide a standalone aviation-safety document addressing the wider operational issues raised during the hearing. The examination issue now expressly includes emergency

landing/EFATO considerations, glider launch, obstacles and other operational interactions, not merely reflected sunlight.

1.9.6 Deliverability Risk: Heritage Harm and Setting

East Pye lies within a dense historic landscape containing Grade I, Grade II* and Grade II listed buildings, conservation areas and historic settlement patterns whose significance is in part derived from rural setting, openness and long-established relationships with surrounding farmland.

The statutory heritage duties require the decision-maker to give considerable importance and weight to the preservation of listed buildings and their settings. The planning balance must therefore address the actual degree of harm identified, not treat Chapter 20's 'not significant' EIA label as determinative.

Historic England accepts that the Scheme changes the settings of designated assets and that residual harm may remain after mitigation. It also identifies cumulative interaction with Tasway and incomplete archaeological evaluation as requiring further consideration.

The current draft should not speculate that substantial harm is likely unless the evidence supports that conclusion for a particular asset. The stronger argument is that even less-than-substantial harm must be given the statutory weight required, and that screening cannot necessarily restore the historic openness or landscape relationships which contribute to significance.

The heritage issue therefore becomes consent-limiting where, after proper weighting of the harm, the public benefits of this particular Scheme do not justify it. That conclusion must be reached asset by asset and cumulatively, not assumed from a generic EIA significance category.

The independent HIA identifies harm from the principal built development to 36 designated assets and harm to 41 designated assets overall once associated road and abnormal-load works are included.

1.9.7 Deliverability Risk: Construction Access and Abnormal Indivisible Loads

The transport case is different because some questions are genuinely binary.

Large 400 kV transformers and other abnormal loads must physically reach their destination. National Highways and Norfolk County Council continue to require further evidence and changes concerning strategic junctions, local routes, cumulative traffic, traffic controls and AIL arrangements.

The Applicant must therefore demonstrate an end-to-end route that is physically feasible, legally available, structurally suitable and compatible with the environmental constraints along it.

If no such route exists, the relevant infrastructure cannot be constructed as authorised. That is not simply an EIA significance judgment.

However, the present evidential position should still be stated carefully. The current evidence demonstrates that the routeing case remains unresolved; it does not yet prove that no feasible route can ever exist.

The appropriate conclusion is therefore that the Scheme's constructability has not yet been demonstrated. If the solution requires materially different highway works, third-party land, vegetation removal or environmental effects outside the assessed envelope, those changes cannot simply be deferred to a future CTMP.

ISH1 also confirmed that the access strategy for Sites 7–10 remains unresolved and that NCC favours additional internal haul-route solutions to avoid unsuitable rural roads. Those routes themselves create land, landscape, ecology, drainage, soil and PRoW effects which must be assessed rather than treated as environmentally neutral mitigation.

1.9.8 Deliverability Risk: Soils, Heavy Clay and Irreversibility

The Applicant's own assessment accepts a significant risk of irreversible loss or downgrading of BMV agricultural land. Natural England also requires fuller ALC coverage, avoidance of peat and measures to keep permanent infrastructure off BMV land where possible.

The soil issue is therefore not properly described as a legal gateway to delivery. It is a significant environmental and planning-balance issue whose weight increases where reversibility is uncertain.

The Applicant relies heavily on the proposition that the Scheme is temporary and that land can ultimately be restored. That assumption must be tested against heavy clay soils, compaction, cable trenching, access and haul routes, repeated replacement activity and altered agricultural drainage.

Where irreversible degradation would occur, the effect must be treated as such. It cannot be downgraded merely because the structures above ground are removable.

The Applicant should therefore demonstrate the extent to which the land can actually be restored to its previous agricultural capability and identify where that cannot be assured. Any permanent or irreversible loss must then be weighed expressly in the planning balance.

1.9.9 Deliverability Risk: Replacement and Lifecycle Assessment

The 60-year Scheme includes foreseeable replacement of panels, batteries and other electrical equipment. The Applicant's own material therefore anticipates substantial future works which may resemble construction in traffic, soil disturbance, ecological disturbance and waste generation.

The issue is not that every future replacement detail must be known now. The EIA must nevertheless assess the likely significant effects of the project over its whole life using a reasonable worst case.

Where future replacement could materially exceed the assessed effects, or where its impacts depend on routes, compounds, habitat conditions or equipment not presently controlled by the DCO, the whole-life assessment remains incomplete.

The appropriate consequence is that the Applicant should define and assess the reasonable replacement envelope now and secure appropriate controls. If it cannot demonstrate that foreseeable replacement remains within the assessed environmental envelope, the residual-effect conclusions should not assume that it does.

1.9.10 Deliverability Risk: Decommissioning and Financial Security

The absence of ring-fenced decommissioning security does not, by itself, establish that the Scheme is legally incapable of consent. It does, however, materially weaken the Applicant's reliance on eventual restoration as mitigation for a 60-year development.

Norfolk Wildlife Trust specifically asks how decommissioning obligations will survive changes in ownership, who will pay and what happens if the current developer no longer owns or controls the Scheme at the end of its life.

Those questions matter because several environmental conclusions depend upon removal, restoration and long-term management actually occurring.

Examination material now indicates that private landowner agreements contain decommissioning securities intended to protect against default or insolvency and capable of periodic revaluation or top-up. That changes but does not resolve BEPS's objection. The outstanding issue is whether those private, landowner-specific securities amount to a coordinated, independently costed, index-linked and publicly enforceable whole-Scheme restoration mechanism, including soil, drainage, contamination and aftercare liabilities, and whether they remain effective following transfer or insolvency of the undertaker.

1.9.11 Cumulative Infrastructure Nexus – Site 1

Site 1 concentrates numerous constraints: major 400 kV infrastructure, BESS, aviation activity, groundwater sensitivity, private water supplies, railway proximity, transport requirements and heritage receptors. The significance of that concentration is

cumulative. Each matter may be capable of resolution individually, but the Applicant must demonstrate that the solutions can coexist in one final design.

The risk is therefore not that one unresolved issue automatically makes the Scheme legally impossible. It is that mitigation for one constraint may worsen another, and the present Application has not yet demonstrated one integrated configuration satisfying all of them simultaneously.

Site 1 should accordingly be treated as a project-level test of environmental coherence and deliverability. If the Applicant cannot demonstrate one design in which aviation, access, drainage, groundwater protection, fire safety, grid requirements and environmental mitigation all operate together within the assessed envelope, the Site should not be assumed to be deliverable.

NGET's Relevant Representation materially qualifies the Applicant's presentation of the Site 1B National Grid substation as a settled connection solution. NGET explains that the original July 2023 connection agreement required East Pye Solar to identify land for the National Grid substation and secure the necessary consent, which is why the DCO application includes the relevant land and compulsory-acquisition powers. NGET now states, however, that its understanding is that the replacement connection agreement will not require the Applicant to secure either the land or consent for the National Grid substation. It further makes clear that granting consent for the proposed substation would not oblige NGET to use it, and that the final size, design and location of the point-of-connection solution cannot yet be confirmed because they depend upon the wider regulatory and commercial process and the outcome of Gate 2 offers. The present position is therefore that East Pye has a connection pathway, but the particular Site 1B transmission solution for which permanent infrastructure and land powers are sought is not yet confirmed by NGET as the solution it will ultimately implement. That uncertainty is material to scheme definition, environmental assessment, deliverability and the justification for compulsory acquisition of the relevant land.

The ExA has additionally required the Applicant to explain the National Grid substation's capacity to accommodate other projects, the certainty and timing of its delivery as East Pye's point of connection and how that timing would be secured, together with any cumulative or downstream consequences of future third-party use. The proposed substation therefore cannot yet be treated simply as a fixed East Pye component whose wider network consequences are exhausted by the present ES.

Great British Grid and the changing connection context

The Government's announcement of Great British Grid on 29 September 2026 materially changes the wider policy context in which East Pye's connection infrastructure should be examined. Great British Grid is intended to invest in electricity-network infrastructure, increase competition, accelerate connections, facilitate wider use of self-build connections and support competitive delivery of transmission assets. It does not replace NESO's system-planning role, Ofgem's regulatory role or the existing

network operators, and it does not itself resolve East Pye's Gate or connection position.

Its significance for East Pye is therefore not that a different connection solution can presently be assumed, but that the future delivery and ownership of transmission infrastructure is becoming more competitive and strategically coordinated. In circumstances where NGET has not confirmed that the Site 1B solution authorised by the DCO will be the final solution adopted, the Applicant should explain whether that proposal remains the most efficient and proportionate long-term network solution in the emerging transmission framework, whether alternative delivery or connection arrangements are now material, and whether the proposed permanent infrastructure is intended solely for East Pye or may perform a wider future network function.

Great British Grid does not remove the present uncertainty. It strengthens the case for resolving, before consent, what infrastructure is actually required and why.

Why should the DCO authorise this particular permanent 400 kV solution now when the connection solution is not confirmed and national policy is actively changing how future transmission infrastructure is planned, financed and delivered?

1.10 Cumulative Risk, Mitigation Limits and Planning Balance

The number and interaction of unresolved matters at East Pye are themselves material to the planning balance.

They include protected-species licensing, water and groundwater protection, private supplies, aviation, major-accident controls, transport and AIL feasibility, soils, heritage, grid uncertainty, replacement and decommissioning.

These should not all be described as separate 'legal gateways'. Their legal and planning consequences differ. Some concern whether statutory tests can ultimately be satisfied; some concern whether environmental effects have been adequately assessed; some concern physical constructability; others concern the weight to be given to residual harm.

The common point is narrower and stronger: the Applicant has not yet demonstrated that all of these matters can be resolved simultaneously within one authorised and environmentally assessed Scheme.

That distinction is important. A project is not made acceptable simply because each unresolved issue might theoretically be capable of later mitigation. The decision-maker must have sufficient confidence now that the authorised development is capable of implementation without departing materially from the assumptions on which the EIA and planning balance depend.

Where resolution would require substantial site deletion, materially different access, new infrastructure, altered drainage, changed grid works or mitigation outside the

assessed envelope, the problem is no longer one of detailed post-consent refinement. It is evidence that the Scheme as submitted has not yet been demonstrated to be environmentally coherent or deliverable.

The cumulative effect of these uncertainties should therefore reduce the weight attached to the Applicant's assertions of secured deliverability and increase the weight given to avoidance, redesign and, if the core conflicts cannot be resolved, refusal.

1.11 Failures of East Pye Solar's Chapter 1

Chapter 1 describes separate competent experts; it does not demonstrate an integrated EIA

Chapter 1 relies upon Regulation 14(4) of the EIA Regulations and identifies the competent experts responsible for each environmental chapter. BEPS does not question the principle that specialist disciplines should be prepared by appropriately qualified professionals. The difficulty is that competent preparation of individual chapters does not establish competent integration of those chapters.

The Applicant's own Table 1.2 demonstrates that the ES was prepared by several different organisations and specialist teams. Landscape, ecology, water, transport, noise and socio-economics were principally prepared by Stantec; cultural heritage by GHC Heritage; soils and agricultural land by Kernon Countryside Consultants; climate change by Bureau Veritas; and EMF and parts of Chapter 18 by Pager Power and others. That multidisciplinary structure is normal for an NSIP, but it creates an obvious need for systematic interdisciplinary reconciliation.

The Planning Inspectorate's guidance makes the requirement clear. Its cumulative-effects advice distinguishes effects with other developments from the interrelationships between environmental aspects of the proposed NSIP itself. It states that the ES should identify where multiple impacts combine upon sensitive receptors and assess those combined effects. More significantly for East Pye, it expressly states that mitigation proposed for one environmental topic must take account of other sensitive receptors, giving the example that planting intended to mitigate landscape and visual effects must also consider its ecological consequences.

The Inspectorate's EIA advice similarly states that interdependencies between environmental aspects must be assessed so that the environmental impacts of the development are considered as a whole, and that mitigation measures should not be developed in isolation because they may relate to more than one environmental aspect.

This goes directly to the problem identified throughout BEPS's Written Representation.

The question is therefore not whether the individual authors listed in Table 1.2 possess appropriate professional qualifications. It is whether there was an effective interdisciplinary process by which their assumptions, mitigation proposals and conclusions were tested against one another. Chapter 1 identifies no such process.

For East Pye Solar that omission is material. The same planting affects landscape, ecology and heritage. The same haul route affects transport, soils, water, ecology, landscape and residents. The same drainage system affects flood risk, groundwater, aquatic ecology and soil. The same plant relocation may affect noise, landscape, heritage, drainage and residential amenity. The same decommissioning assumption determines conclusions in landscape, soils, agriculture, ecology and heritage.

The Applicant should therefore demonstrate how the competent experts identified in Table 1.2 coordinated their assessments, how conflicting environmental objectives were resolved and how changes originating in one discipline were communicated to and reassessed by every other affected discipline.

A list of competent experts is evidence of specialist authorship. It is not evidence that the resulting Scheme has been assessed as one functioning environmental system.

1.12 Identified mitigation is not the same as secured mitigation

Chapter 1 states that the EIA identifies residual effects remaining after implementation of ‘secured embedded and additional mitigation measures’. **That description is too categorical.**

Across the Environmental Statement, important mitigation remains dependent upon outline documents, detailed plans to be prepared after consent, subsequent approvals, final equipment selection, micrositing, licences, monitoring arrangements and other future decisions.

For example, the transport assessment relies upon final Construction and Operational Transport Management Plans; operational noise conclusions rely upon future measures and final design capable of achieving specified noise outcomes; the landscape assessment relies upon future establishment and long-term management of planting; detailed ecological management remains dependent upon later implementation plans and, where required, licensing; and drainage, access and other matters continue to be refined.

The Applicant's own Commitments Register is particularly relevant because it states that the register itself is not a secured document but records commitments intended to be secured elsewhere.

There is an important legal and evidential distinction between:

- a mitigation measure which has been suggested;
- a commitment which the Applicant intends to implement;
- an outline management principle;
- a future approval mechanism;
- and a measure whose necessary environmental outcome is actually secured by the DCO.

Residual-effect conclusions should only assume mitigation to the extent that its delivery, location, performance and necessary environmental outcome are sufficiently certain.

That matters especially where the significance conclusion depends upon the mitigation. Chapter 12, for example, reaches residual operational noise conclusions after assuming additional mitigation even though the chapter describes those measures as ‘example additional mitigation’ and leaves aspects of the final solution to detailed design. The question is not whether some future acoustic treatment might be capable of reducing noise. It is whether the DCO secures the outcome upon which the residual-effect conclusion depends.

The same distinction applies across the ES. Accordingly, the Examination should not accept Chapter 1's general statement that residual effects are those remaining after ‘secured’ mitigation without testing, measure by measure:

- what precisely is required;
- where it must occur;
- what performance standard must be achieved;
- when it must be delivered;
- how long it must be maintained;
- who approves it;
- what monitoring verifies success;
- what happens if it fails; and
- which enforceable DCO provision secures that outcome.

Until that exercise is undertaken, some of the ES's residual-effect conclusions are better characterised as **mitigation-dependent predictions** rather than secured environmental outcomes.

1.13 Chapter 1 overstates the adequacy and continuity of the consultation-stage environmental information

Chapter 1 states that the PEIR enabled consultees to understand the likely significant environmental effects of the Scheme and develop an informed view. It then characterises the subsequent targeted-consultation changes as ‘localised’ and ‘minor’ and states that they did not give rise to materially new or different likely significant environmental effects. Those propositions are disputed and should not be treated as established facts.

Norfolk County Council, the Environment Agency, Highways, the LLFA, BEPS and ,ultiple other consultees raised concerns about the adequacy of the environmental baseline information available to consultees during the statutory consultation and targeted consultation stages. A significant proportion of the environmental surveys underpinning the Environmental Statement were not available at the time of statutory consultation, and many key survey datasets were either absent, incomplete, or not yet undertaken.

Following statutory consultation, the Scheme changed in several material respects. South Norfolk Council records the confirmation of the Site 1B National Grid Substation, abandonment of the alternative location, an increase in the Site 1B Project Substation from 132 kV to 400 kV, additional panels at Site 7D, additional land for grid and highway works, revised AIL arrangements and a changed construction traffic strategy. These were not merely drafting

alterations. They changed the location, scale or environmental relationship of major components of the Scheme.

Surveys were not issued or meaningfully updated even at the targeted consultation stage, neither was the PEIR updated. As a result, consultees were not in a position to review the full evidential basis for the environmental assessments when forming their views on the evolving Scheme. In practical terms, the Environmental Statement represents the first point at which the majority of these survey results have been made available in a consolidated and complete form, meaning that key aspects of the environmental baseline and impact assessment have not previously been subject to informed consultation.

The material issue is not whether the changes created an entirely new category of environmental effect. A change can materially alter the magnitude, location, receptor or interaction of an existing effect without creating a new environmental topic. Accordingly, Chapter 1's assertion that the changes produced no materially new or different likely significant effects requires evidential demonstration, not repetition. The Applicant should show, for each material post-PEIR change, the original assessed parameter, the revised parameter, the receptors affected, the original and revised effects, any altered mitigation and the basis upon which the significance conclusion was said to remain unchanged.

Without that reconciliation, Chapter 1's consultation narrative presents as settled the very environmental conclusion which remains in dispute.

1.14 The introductory description obscures the 500 MW design premise

Chapter 1 describes the Scheme simply as having generating capacity ‘exceeding 100 MW’. That may identify the statutory threshold relevant to NSIP status, but it does not adequately explain the design premise which produced East Pye.

Chapter 5 is considerably more revealing. It states that the Applicant began from the need to accommodate the 500 MW Grid Connection Agreement and, using the land requirements assumed for solar generation, searched for approximately 1,100 hectares of land capable of accommodating the panels and associated infrastructure. That distinction matters.

East Pye is not simply an unspecified generating station above the NSIP threshold. It is a project whose site search, land requirement, dispersed configuration and alternatives assessment were materially shaped by the Applicant's decision to pursue approximately 500 MW of transmission-connected solar generation. That premise should be explicit at the outset because it is central to the environmental case.

The Examination must distinguish between the statutory proposition that large-scale renewable generation is nationally needed and the project-specific proposition that **500 MW had to be accommodated within this particular search exercise**.

The latter is an Applicant design objective. It is not itself an environmental constraint or statutory requirement. That distinction is particularly important when considering whether

environmental constraints were permitted to reduce the extent of development, whether smaller configurations were genuinely considered, and whether the retained Scheme represents the environmental capacity of the place or the land area required to preserve the Applicant's chosen output.

1.15 Chapter 19 cannot cure interactions missed in the underlying assessments

Chapter 1 describes Chapter 19 as providing a summary of the cumulative and in-combination assessments presented within the individual technical chapters. That structure cannot cure a failure to identify cross-topic effects at source.

If, for example, landscape planting has been assessed only as visual mitigation without its consequences for open-country birds or heritage setting being identified in Chapters 8 and 10, Chapter 19 cannot retrospectively make those assessments complete. The same applies where transport mitigation creates new ecological or hydrological effects, or where significant landscape effects have not been carried through into tourism or residential amenity conclusions. A summary chapter can only combine effects which the underlying assessments have first recognised and evaluated.

The relevant test is therefore not whether Chapter 19 contains a cumulative-effects table, but whether the individual technical assessments have correctly identified the interactions between the Scheme's effects and mitigation measures so that their combined consequences can meaningfully be assessed.

An interaction omitted at source does not become assessed merely because the ES contains a later cumulative-effects chapter.

Chapter 2: EIA Methodology

2.1 Introduction: why methodology is a substantive issue

Chapter 2 is not merely introductory. It determines the reliability of every later Environmental Statement conclusion by establishing how receptors are identified and valued, how the baseline and future baseline are defined, how magnitude and sensitivity are combined, which effects are treated as significant, how duration and reversibility are classified, and how cumulative effects, embedded mitigation and professional judgment are addressed. A weakness in that framework is therefore capable of propagating through every technical chapter.

BEPS's central concern is that the EIA methodology does not demonstrate a sufficiently site-specific, ecosystem-led or precautionary assessment of East Pye Solar. It applies generic assessment structures to a dispersed scheme situated within an unusually sensitive and interconnected ecological, hydrological, historic and rural landscape. Those methodological weaknesses materially reduce confidence in repeated conclusions that effects will be minor, negligible or not significant.

The deficiencies arise at several levels. Chapter 2 contains internal uncertainty over duration, receptor sensitivity and effect classification. The methodology is not applied consistently between technical chapters. Material baseline information is incomplete, disputed or inaccurately described. At the same time, the assessment relies extensively on future management plans, surveys, investigations, licences and detailed design decisions that may determine whether effects arise and how significant they will be.

These concerns are not confined to BEPS. Norfolk County Council's Lead Local Flood Authority identifies inconsistencies in the treatment of construction, operation and decommissioning periods, the absence of clear future baselines, unclear sensitivity definitions and inconsistencies between the magnitude and significance tables. The Environment Agency identifies incomplete baseline evidence, missing maximum design parameters, inconsistent effect matrices, unresolved groundwater pathways and extensive reliance on later risk assessments and management plans. South Norfolk Council identifies baseline uncertainty, insufficient worst-case assessment and excessive design flexibility across ecology, noise, heritage and landscape. National Highways similarly identifies missing junction-level evidence, insufficiently granular cumulative assessment and construction controls that remain to be strengthened.

The issue is therefore not whether the ES contains a conventional methodology chapter. It is whether the methodology provides a reliable basis for assessing this particular Scheme, in this particular receiving environment, throughout its construction, operation, replacement and decommissioning life.

2.2 Applicable EIA principles and the applicant's own stated framework

A lawful and reliable EIA must identify, describe and assess the likely significant effects of a sufficiently defined development. Where flexibility is retained, the assessment must address the realistic worst-case outcome rather than a series of favourable or incompatible assumptions. Mitigation relied upon to reduce significance must be sufficiently certain, effective and secured. Cumulative and interrelated effects must be assessed, and the methods, assumptions, limitations and material professional judgments must be transparent. None of those requirements can be satisfied unless the baseline information is sufficiently complete, current and spatially appropriate to support the conclusions reached.

Since this Written Representation was prepared, the National Planning Policy Framework was replaced on 17 August 2026. The Energy NPSs remain the primary policy framework for this NSIP, but the current NPPF is materially relevant to the adequacy of the evidential basis on which environmental conclusions are reached. Its policies repeatedly require, or proceed on the basis, that the decision-maker has sufficient information to understand the receiving environment and the effects of development before relying upon mitigation or later detailed design. In particular, Policy N2 requires sufficient information to demonstrate compliance with the natural-environment policies and requires significant biodiversity harm first to be avoided through location on an alternative site with less harmful impacts; Policy P2 expects adequate site-assessment information concerning ground conditions and contamination; Policy F5 and the associated flood-risk and drainage policies require a sound evidential basis for locating and designing development in relation to flood risk; Policy HE5 requires the decision-maker to be satisfied that the assessment accurately reflects effects upon heritage significance; and Policy P3 requires cumulative pollution effects on health, living conditions and the natural environment to be considered. These policies reinforce BEPS's central methodological point: a conclusion of acceptability cannot safely precede the information necessary to establish the receptor, pathway, effect and mitigation on which that conclusion depends.

APP/6.3.2.3 sets out the legislation, policy and guidance which the applicant says govern ES Chapters 6 to 18. It records requirements concerning ecological networks and the mitigation hierarchy, Water Framework Directive compliance, flood risk and water resources, heritage significance and setting, landscape character, soil protection, climate resilience, whole-life greenhouse gas assessment, waste and major accidents. That appendix is a schedule of applicable standards; it is not evidence that the substantive chapters have met them.

The ES must therefore be tested against both the applicable legal and policy framework and the Applicant's own stated standards. It is insufficient merely to cite CIEEM guidance, Water Framework Directive requirements, Historic England guidance or the National Policy Statements if the underlying baseline is incomplete, the receptor hierarchy is inconsistent, the reasonable worst-case design is not defined, or the mitigation relied upon remains subject to later determination.

2.3 Failure to provide a site-specific, ecosystem-led methodology

The methodology is not demonstrably calibrated to the environmental character of the East Pye area. It relies on standardised sensitivity and magnitude matrices, conventional solar-development survey scopes and familiar mitigation measures such as buffers, hedgerow retention, grassland creation, trenchless crossing and later management plans. Those tools may be appropriate in principle, but the ES does not show that they have been adapted sufficiently to the particular environmental network affected by this Scheme.

The South Norfolk Claylands contain an unusually dense and interconnected set of receptors. These include confirmed and predicted maternity colonies of the European Protected Species barbastelle bat; overlapping Core Sustenance Zones; ancient woodland and priority woodland networks; chalk aquifer and surface-water connectivity; downstream chalk-stream habitat supporting or potentially supporting white-clawed crayfish; ponds, fen, grazing marsh, meadow, woodland, orchard and roadside habitats; rare and priority botanical assemblages; and farmland managed to support ground-nesting birds.

The applicant's own spatial plans reinforce this point. APP/2.9 shows the Order Limits and cable corridors in the context of County Wildlife Sites, Roadside Nature Reserves and Priority Habitat Inventory features including woodland, grazing marsh, lowland meadow, fen, ponds, reedbeds and orchards. APP/2.10 shows the wider relationship with statutory designations, ancient woodland, Sites of Special Scientific Interest and European sites. The receiving environment is therefore not a collection of isolated arable fields. It is a connected ecological and hydrological landscape.

A methodology designed principally around field-level assessment is not sufficient for a Scheme whose effects operate through woodland networks, aquifers, streams, hedgerows, flight corridors and multiple development parcels. The assessment needed to begin with those functional systems and then test the Scheme against them, rather than treating ecological connectivity mainly as an aggregation of individual parcel effects.

2.4 Failure to apply a landscape-scale ecological framework

Ecological effects must be assessed at the spatial scale at which the receptor functions. Barbastelle maternity colonies do not depend on a single woodland or hedgerow. They depend on networks of roosting woodland, overlapping Core

Sustenance Zones, dark commuting routes and dispersed feeding habitat. Chalk-stream receptors are connected to groundwater and may therefore be affected by piling, trenching, drilling or contamination sources located away from the immediate watercourse. Farmland parcels, ponds, woodland edges, hedgerows and green lanes likewise operate as parts of habitat mosaics rather than as self-contained receptors.

The ES nevertheless repeatedly structures its assessment around Sites, sub-sites, fields and individual designated features. That approach risks understating cumulative fragmentation, weakening of flight lines, displacement from feeding habitat, lighting effects across several corridors, hydrological pathways, repeated disturbance and the combined loss of functional habitat. The relevant ecological question is not simply how many hectares are physically removed from each field. It is whether the Scheme, considered as a whole, alters the functionality, connectivity and resilience of the ecological network upon which protected and priority species depend.

South Norfolk Council's RR materially supports that concern. It records ten bat species, describes the site as nationally important for its bat assemblage, and identifies twelve barbastelle maternity colonies whose Core Sustenance Zones overlap the Order Limits. It also raises the likelihood of further colonies in adjoining ancient woodland which has not been surveyed by the Norfolk and Norwich Bat Group, and requests species-specific assessment rather than reliance on broad bat groupings.

Norfolk County Council similarly records maternity roosts in woodland around the Scheme and considers the area potentially of national importance. It identifies possible direct effects on habitats used by those colonies during construction and potentially decommissioning. These are not marginal receptor-specific disagreements. They indicate that the ecological assessment may have been conducted at too narrow a spatial scale.

The same concern applies to water-linked ecology. The Environment Agency identifies omitted groundwater-dependent terrestrial ecosystems, potential preferential groundwater pathways, thermal effects from cables and risks arising from deep foundations and trenchless drilling. Those issues cannot be assessed adequately through separate parcel, watercourse and habitat evaluations without an integrated landscape-scale framework.

2.4.1 The central methodological problem: cross-topic inconsistencies and interactions

A recurring defect in the Environmental Statement is that environmental topics are assessed in separate chapters without adequate reconciliation of the assumptions, mitigation measures and conclusions between them. The division of an ES into specialist chapters is administratively necessary. It does not mean that landscape,

ecology, soils, water, heritage, transport, recreation, tourism and residential amenity exist independently of one another.

The EIA Regulations require assessment of the interaction between population and human health, biodiversity, land, soil, water, air and climate, material assets, cultural heritage and landscape. EN-1 (2025) expressly repeats that requirement and requires consideration of direct, indirect, secondary, cumulative, long-term, permanent and temporary effects. More importantly, paragraph 4.3.19 requires the decision-maker to consider how the accumulation and interrelationship of effects may affect the environment, economy or community **as a whole**, even where individual effects appear acceptable when considered separately with mitigation.

That requirement is particularly important for East Pye. This is not a compact development occupying one homogeneous site. The Order Limits extend across 1,212.3 ha, comprising ten dispersed Sites and numerous Sub-Sites, a BESS, multiple project substations, a new National Grid Substation, grid connection infrastructure, approximately 24 km of cable corridor and separate highway works. The same rural landscape, watercourses, soils, habitats, roads, heritage settings, recreational routes and communities are therefore affected repeatedly by different components of the same Scheme.

BEPS does not suggest that the existence of separate ES chapters is itself defective. The objection is that conclusions reached within them are not consistently propagated across the Environmental Statement. Measures treated as mitigation or benefit in one chapter may cause harm in another; assumptions about restoration in one chapter conflict with the future landscape assumed elsewhere; significant effects established by one discipline are discounted by a dependent assessment; and changes required to solve one unresolved problem may create effects which have never been assessed by the other disciplines.Chapter boundaries are an administrative convenience. They are not environmental boundaries.

ISH1 materially confirmed that this concern is not confined to BEPS's interpretation of the ES. The Examination identified numerous aspects of the Scheme whose final configuration remains unresolved across disciplines, including AIS/GIS technology for the project substations, the number and location of conversion units and switch rooms, ancillary operational buildings, fencing, lighting, construction compounds, haul routes and the final disposition of major infrastructure. The ExA also required the Applicant to correct inconsistencies between the Indicative Masterplan and Works Plans where land is variously shown as retained agricultural land, mitigation land, biodiversity land and cabling works. Those matters are methodologically important because the same physical space is being relied upon differently by different parts of the environmental case. A receptor-led and spatially reconciled EIA cannot assume mutually inconsistent land uses or design outcomes and then conclude independently within each topic that effects are acceptable.

2.4.2 Landscape mitigation may itself cause ecological and heritage harm

The clearest example is the Applicant's extensive reliance on new hedgerow, tree, woodland and scrub planting.

Chapter 7 treats that planting primarily as embedded landscape mitigation. Hedgerows are to be managed towards a target height of approximately 3 m to screen views from nearby PRoWs and visual receptors, while trees and woodland are expressly described as primary mechanisms for filtering and screening views. The same planting is also credited with providing habitat and strengthening ecological connectivity.

That is not an integrated assessment of the consequences of the planting.

As Chapter 8 of this Written Representation demonstrates, substantial parts of the existing landscape already perform important ecological functions precisely because they are open. The Applicant's own breeding-bird evidence records a major farmland-bird assemblage, including numerous skylark territories within permanent development areas. Ground-nesting and open-country birds require sufficiently large open areas, low disturbance and sightlines which allow detection of predators. Converting open farmland into smaller compartments enclosed by taller hedges, woodland belts, fencing and other vertical structures may therefore benefit some woodland, scrub or boundary species while reducing habitat suitability for skylark, lapwing and other open-country species.

That ecological trade-off cannot be converted into an unqualified biodiversity benefit merely because additional woody habitat scores positively elsewhere. The relevant question is whether the existing **function** of the habitat is retained for the species which currently depend upon it.

There is a parallel heritage issue. Chapter 10 itself acknowledges that the transition from agriculture to solar, together with new hedgerow and tree planting, alters historic landscape character from construction through to decommissioning. It nevertheless concludes that the planting will enhance existing field boundaries and that the overall historic landscape effect is negligible.

That conclusion requires more than an assertion that native planting is desirable. A new screening belt may conceal solar infrastructure while simultaneously enclosing an historically open view, changing the relationship between a church and its agricultural hinterland, altering a historic field pattern or changing the experience of an historic lane or conservation area.

The same hedge cannot simply be counted as landscape mitigation, heritage mitigation and ecological enhancement without assessing what it encloses, what open habitat it removes, what historic relationship it changes and what long-term landscape it creates.

Mitigation must itself be assessed as an environmental intervention.

2.4.3 The Environmental Statement contains incompatible concepts of reversibility and restoration

The same problem appears in the treatment of decommissioning.

Chapter 10 characterises the change from agricultural use to energy generation as temporary and reversible. Chapter 15 similarly anticipates that long-term grassland management may provide temporary soil benefits which may reduce or disappear if arable agriculture resumes after decommissioning.

Chapter 7 describes a materially different end state.

It assumes that the National Grid Substation and Grid Connection Scheme elements will remain and that established landscape mitigation planting, including woodland, trees and hedgerows, will also remain in situ. Elsewhere it states that broadleaf woodland, linear tree belts, scrub and hedgerows would be retained while only areas of grassland are assumed to revert to their former agricultural use.
Those are not equivalent baselines.

If substantial mature planting and permanent grid infrastructure remain, the post-decommissioning landscape will not be the pre-development agricultural landscape. Its landscape character, ecological structure, field enclosure, heritage relationships and potentially its agricultural functionality will have been altered for the long term.

The Applicant therefore needs one coherent end-state assumption, applied consistently across landscape, ecology, heritage, soils, agriculture, drainage and decommissioning. It cannot rely upon return to agriculture when assessing reversibility in one chapter while relying upon permanent retention of the very landscape changes created to screen the Scheme in another.

2.4.4 Significant landscape effects are not carried through into the socio-economic assessment

A further example is the relationship between Chapters 7 and 14.

Chapter 7 identifies numerous significant adverse landscape and visual effects. These include Major and Major-to-Substantial adverse effects upon high and medium sensitivity receptors and PRoWs around Sites 7, 8 and 9. It also identifies effects upon tranquillity, remoteness and the experience of the rural landscape.

Chapter 14 nevertheless assigns the tourism industry a Low magnitude impact and a Minor Adverse, not significant, effect during construction, operation and decommissioning. That conclusion is reached notwithstanding Chapter 14's own identification of local campsites, accommodation businesses and visitor attractions, and evidence of approximately 2.76 million tourism day visits and £84 million of associated expenditure in South Norfolk.

The cumulative assessment demonstrates the same compartmentalisation. Chapter 14 accepts that East Pye together with 22 other energy schemes may adversely affect visual amenity and thereby tourism, but reasons that only tourism activities in the 'immediate proximity' of individual sites are likely to be affected and consequently concludes only a Minor Adverse cumulative effect.

That reasoning does not adequately address a Scheme whose own Order Limits extend repeatedly across a wide part of rural South Norfolk. A walker, cyclist, visitor or rural accommodation customer does not experience the landscape through the boundaries of individual LVIA assessment parcels.

Nor does assessment of the tourism industry at South Norfolk district level answer whether particular businesses whose attraction depends upon tranquillity, countryside views, walking, cycling or rural character may experience materially greater effects.

An EIA cannot identify widespread significant landscape and recreational effects in one chapter and allow a dependent socio-economic assessment to proceed without explaining why those effects produce only a Low magnitude change to the economic receptors which depend upon that landscape.

2.4.5 Lighting illustrates the failure to reconcile a common impact pathway

Lighting presents another cross-topic issue.

The Planning Inspectorate expressly required assessment of night-time lighting effects on landscape and visual receptors and ecological receptors including bats, specifically identifying intermittent sources such as motion-activated security lighting.

Chapter 7 records that motion-sensing security lighting will be provided at the Project Substations, National Grid Substation and BESS Site but relies principally upon the Lighting Strategy to conclude that significant lighting effects are unlikely. The Chapter also states among its assumptions and limitations that lighting effects are not assessed within the LVIA itself.

The issue is not confined to landscape. The same lighting may affect dark rural character, residential amenity, the setting of heritage assets and the behaviour and functional connectivity of light-sensitive bats. Chapter 8 identifies the particular importance of maintaining dark commuting and foraging routes within a landscape supporting barbastelle maternity colonies.

A Lighting Strategy is a mitigation document. It is not a substitute for demonstrating, across all relevant topics, what the residual effects of the lighting will be. The Applicant should identify where the PINS-requested assessment of the common lighting pathway has actually been undertaken and reconcile its conclusions across landscape, ecology, heritage and residential receptors.

2.4.6 Water, soils, groundwater and aquatic ecology are one connected system

The compartmentalisation is equally problematic below ground.

The Scheme crosses a landscape containing the River Tas, Hempnall Beck, tributaries, ordinary watercourses, field drainage systems, aquifers and private water supplies. Chapters 8, 9, 15 and 16 divide responsibility respectively between ecology, the water environment, soils/agricultural land and ground conditions. The actual pathways do not divide in that way.

Soil disturbance and compaction can alter runoff. Runoff enters ditches and tributaries. Watercourse crossings affect flow and sediment transport. HDD or other trenchless construction interacts with groundwater and watercourses. Mobilised contamination can reach groundwater or surface water. Those waters support aquatic habitats and protected species and, in some locations, private water supplies.

Chapter 16 itself records disagreement concerning the appropriate treatment of groundwater travel times around private water supplies and ultimately concludes that credible contaminant linkages have not been identified. Evidence submitted in relation to the River Tas and white-clawed crayfish raises a parallel question about whether aquatic receptors and downstream pathways were adequately represented in the ecological baseline.

These matters cannot safely be resolved by each chapter assuming that the relevant pathway is dealt with somewhere else. The assessment must follow the pathway from source, through soil and groundwater or surface water, to the ultimate human and ecological receptor.

2.4.7 Changes to the transport solution may invalidate assumptions elsewhere

The same principle applies to the unresolved construction access strategy.

As Chapter 11 of this Written Representation explains, substantial elements of the final haul-road, access and construction route strategy remain disputed by the relevant highway authorities. Any material alteration to those routes is not merely a transport matter.

A new or relocated haul route may require additional land, hedgerow removal, tree works, watercourse crossings, drainage structures, soil stripping, proximity to dwellings, interaction with PRoWs, disturbance of protected species, works near heritage assets or crossing of utility infrastructure. It may also alter noise, air quality and traffic effects.

Management of a fixed and environmentally assessed route can properly be mitigation. Selection or material redesign of the route after consent is scheme design.

Accordingly, if the transport solution changes during Examination, the Applicant must demonstrate that every consequential landscape, ecological, hydrological, heritage,

soil, noise and safety effect remains within the assessed envelope. It is not sufficient for Chapter 11 alone to be amended while the dependent environmental chapters remain unchanged.

2.4.8 Agricultural management demonstrates a further unresolved trade-off

Chapter 15 anticipates a change over most of the Order Limits from arable cultivation to long-term grassland and relies upon that change in predicting beneficial effects upon soil organic carbon, erosion and soil health.

That assessment cannot be separated from the ecological and landscape management actually proposed.

As Chapters 8 and 15 of this Written Representation explain, the ecological consequences depend on whether land is grazed, mechanically cut, treated with herbicide, maintained as open grassland, planted with trees or hedges, or retained as open arable habitat for farmland birds. Those choices affect soil structure and carbon, botanical diversity, invertebrates, ground-nesting birds, runoff, chemical inputs and agricultural functionality.

There is therefore no single generic category of ‘grassland’ which can simultaneously be assumed to deliver soil benefit, biodiversity gain and agricultural continuity. The management regime must be fixed with sufficient precision for its consequences across all relevant environmental topics to be assessed.

2.4.9 Consequence for the reliability of the Environmental Statement

These examples reveal a wider methodological problem.

East Pye is assessed as though mitigation can be credited separately within each discipline. In reality, a change that reduces one effect may create or intensify another. Screening planting may reduce visibility while damaging openness. A buffer may protect a woodland while moving infrastructure onto BMV land. A haul-route change may solve a highway objection while creating a new ecological or hydrological impact. Long-term grassland may alter soil condition while removing existing arable-bird habitat. Retention of mature planting after decommissioning may preserve ecological habitat while preventing restoration of the historic and agricultural baseline.

The problem is therefore not simply cumulative impact from other developments. It is the **intra-project interaction of East Pye's own effects and mitigation measures**.

BEPS submits that these inconsistencies raise a material question as to whether the interaction requirement in Regulation 5(2)(e) and EN-1 section 4.3 has been adequately discharged. They also affect the weight which can safely be attached to individual residual-effect conclusions where those conclusions depend upon assumptions contradicted elsewhere in the application.

Before the close of Examination, the Applicant should therefore be required to provide a cross-topic reconciliation of the Environmental Statement. That should identify each material design or mitigation measure; the chapters which rely upon it; the beneficial and adverse consequences it produces for other receptors; and any resulting change to significance conclusions.

In particular, the Applicant should establish a single coherent description of the Scheme and receiving environment at construction, Year 1, Year 15, the end of the 60-year operational period and following decommissioning. Landscape, ecological, agricultural, heritage and socio-economic conclusions should all be tested against that same future environment.

Where a material assumption, route, management regime, mitigation measure or end state changes, every dependent assessment should be revisited.

The environment affected by East Pye is one functioning system. The decision-maker must therefore be given an assessment of the Scheme's effects upon that system as a whole, not merely a collection of individually tolerable conclusions reached within separate technical chapters.

2.4.10 Design changes and mitigation displacement across environmental topics

A further weakness is the assumption that unresolved design matters can be addressed within the technical chapter in which the problem first arises. In a scheme of this scale, mitigation is rarely confined to one environmental topic. Moving infrastructure, altering access, introducing barriers, changing drainage or enlarging buffers may reduce one effect while creating or intensifying another.

The transport case illustrates the problem. Norfolk County Council, as highway authority, does not support the submitted construction strategy for Sites 7–10 and instead requires a materially different approach involving access from appropriate standard roads and substantially greater use of internal haul routes and Cable Route Corridors. For Sites 7–9 it expects access through CRC8 with internal haul routes or CRC connections; for Sites 10A–10D it seeks a shared Harvey Lane access with internal routes. It expressly concludes that the present strategy does not adequately address significant highway constraints and cannot presently be supported.

Those changes are not exclusively transport mitigation. An internal haul route is physical development. Depending on its final alignment it may require soil stripping, temporary or permanent surfacing, drainage, watercourse crossings, hedgerow gaps, tree works and additional land. It may affect archaeological remains, protected species, BMV agricultural land, PRoWs, nearby dwellings and landscape character. The Order Limits already contain an approximately 24 km Cable Route Corridor running through a landscape crossed by the Hempnall Beck, River Tas and numerous ordinary watercourses and field drains. A transport solution dependent upon greater use of those corridors must therefore be tested against the assessments of ecology, soils,

water, heritage, landscape, noise and ground conditions, not simply inserted into a later Construction Traffic Management Plan.

The Applicant's own LVIA demonstrates the degree of residual flexibility. It identifies clashes between indicative access routes and ancient or veteran-tree buffer zones but assumes that these can be resolved at detailed design because the access routes may be relocated within Work No. 4. That may ultimately prove possible, but relocation is not environmentally neutral. Avoiding one tree may move an access route towards another hedgerow, habitat, watercourse, archaeological feature, dwelling or area of higher-quality soil. The environmental consequence depends upon where the route moves.

The same issue arises in drainage. The LLFA identifies significant outstanding matters in the submitted drainage case, including calculations which do not reflect the drainage layouts, inconsistent runoff coefficients and, critically, the absence of confirmed drainage designs, discharge locations and treatment trains for discrete drainage areas. It concludes that further work is required before the viability and water-quality performance of the drainage system can be demonstrated. It separately challenges assumptions concerning ordinary watercourses and surface-water flow paths and requires either hydraulic modelling or a precautionary approach avoiding the identified flood extent.

Again, the eventual solution may have consequences beyond Chapter 9. Additional attenuation, swales, drainage channels, treatment features or revised discharge locations may require additional land and excavation, alter soil handling, interact with habitats and watercourses, affect archaeological deposits and change the landscape design. If avoidance of a surface-water flow path requires infrastructure to move, the environmental consequences of the new location must also be assessed.

Operational noise provides a third example. South Norfolk Council's specialist review records that the Applicant may need low-noise equipment, acoustic enclosures, relocation or reorientation of plant or noise barriers, with the final solution left to detailed design. The Council also identifies shortcomings in the present acoustic assessment, including insufficient justification for the treatment of tonal and other acoustic characteristics and unresolved low-frequency noise issues.

Those measures again have cross-topic consequences. A noise barrier may increase the visual mass of infrastructure. Reorienting or relocating plant may alter effects on neighbouring dwellings, heritage assets, ecological buffers, drainage infrastructure or BMV land. Acoustic enclosures can change equipment dimensions and potentially the assessed design envelope. Moving equipment away from one receptor does not demonstrate mitigation unless the receiving location has also been environmentally assessed.

The same principle applies to ecological and landscape mitigation. Chapter 7 relies upon new hedgerows, trees and woodland as primary mechanisms for screening the Scheme and simultaneously credits them with ecological connectivity and habitat

benefits. Yet South Norfolk Council itself warns that reliance on tree planting can remove important views and create enclosure within the existing open landscape. As explained above, greater enclosure may also reduce the functional value of open farmland for ground-nesting and open-country birds. A measure which mitigates visual effects may therefore create heritage, landscape or ecological harm.

This is mitigation displacement. The Environmental Statement repeatedly assumes that the solution to an adverse effect can be developed within the relevant topic without demonstrating that the resulting intervention remains environmentally acceptable when considered across the Scheme as a whole.

BEPS does not contend that every detailed design decision must be fixed before consent. A parameter-based DCO necessarily permits some later refinement. The critical distinction is between refinement within an environmentally assessed envelope and a later design choice which determines the existence, location or significance of an environmental effect. Where resolving an outstanding problem requires infrastructure to be moved, a route to be changed, a drainage system to be redesigned, additional engineering works to be introduced or mitigation to occupy different land, the Applicant must demonstrate that the resulting configuration remains within the assessed worst case for **every affected environmental topic**.

A mitigation measure cannot be accepted merely because it solves the problem which caused it to be introduced.

2.4.11 Consequence: the residual-effect conclusions require cross-topic reconciliation

The consequence is material. The individual residual-effect conclusions in the ES cannot safely be treated as self-contained findings where they depend upon design assumptions or mitigation measures which remain unresolved, conflict with assumptions elsewhere, or create effects falling within another environmental discipline.

This is not a criticism that every uncertainty invalidates an EIA. Nor does BEPS suggest that all later detailed design is impermissible. The problem is cumulative and structural. Across the application:

- the highway authority rejects material elements of the submitted access strategy and seeks different haul-routing arrangements;
- the LLFA identifies unresolved drainage design, discharge, modelling and water-quality matters requiring further work;
- operational noise mitigation may depend upon plant selection, relocation, reorientation, acoustic enclosure or barriers at detailed design;
- landscape mitigation relies upon substantial new vegetation which itself changes landscape character, heritage setting and potentially ecological habitat function;

- access alignments remain sufficiently flexible to be relocated at detailed design in response to tree constraints;
- the post-decommissioning assumptions differ between environmental topics, with mature mitigation planting and National Grid infrastructure remaining while other chapters rely upon the concept of restoration or return to agricultural use; and
- significant landscape and recreational effects are not consistently carried through into dependent socio-economic conclusions.

These are not isolated drafting discrepancies. They concern the environmental configuration which has actually been assessed.

The significance conclusions in an EIA are the end product of a chain: **baseline → development parameters → impact pathway → mitigation → residual effect**. If a material element in that chain changes, the residual conclusion must be checked again. It is not sufficient to change the mitigation and retain the conclusion.

This is particularly important under the Rochdale Envelope. Flexibility is permissible only where the environmental assessment has considered the realistic worst case that the consent would allow. It cannot operate as a mechanism by which material environmental choices are postponed while the ES assumes that whichever choice is subsequently made will remain less harmful than the assessed scheme. That proposition must be demonstrated.

East Pye's dispersed form makes that discipline essential. The Scheme contains ten Sites and numerous Sub-Sites, multiple substations, BESS infrastructure, a National Grid Substation, grid works, approximately 24 km of cable corridor and separate highway interventions across a sensitive rural environment. A change made to resolve one constraint can readily intersect another.

The ExA should therefore require a formal cross-topic reconciliation before relying upon the ES residual-effect conclusions. At minimum, the Applicant should identify each material outstanding design or mitigation matter and state:

1. what assumption was used in each relevant ES chapter;
2. what range of final design outcomes remains authorised;
3. which environmental receptors could be affected by the final choice;
4. whether the worst case of each permitted outcome has already been assessed across all relevant topics;
5. what mitigation is relied upon and where it is secured;
6. whether that mitigation itself creates or displaces another environmental effect; and
7. whether any significance conclusion changes as a result.

Particular reconciliation is required for the final construction access and haul-route strategy; drainage and surface-water design; noise mitigation and final plant arrangement; landscape and ecological planting; watercourse and cable crossings;

soil-management requirements; lighting; substations and grid infrastructure; and the post-decommissioning end state.

Where the Applicant cannot demonstrate that a final solution lies within the assessed cross-topic envelope, the answer is not simply to defer the matter to a management plan. The relevant design must either be resolved and environmentally assessed during Examination, constrained by the DCO to the assessed outcome, or removed from the authorised development.

Until that exercise is undertaken, the repeated conclusion that individual effects will be Minor, Negligible or Not Significant gives a misleading impression of certainty. The question for the ExA is not whether each technical chapter can identify a possible mitigation measure in isolation. It is whether **one physically deliverable version of East Pye exists which simultaneously satisfies the assumptions, mitigation commitments and residual-effect conclusions across the Environmental Statement as a whole**.

On the present evidence, that has not yet been demonstrated.

2.5 Incomplete, uneven and untimely baseline data

A significance matrix cannot cure an incomplete baseline. Where the distribution, status, sensitivity or functional relationship of receptors is uncertain, the resulting magnitude and significance conclusions are necessarily provisional. This is particularly serious where the ES then relies upon those conclusions to justify a finding of no significant effect or to defer further surveys and mitigation until after consent.

The baseline difficulties identified across the application include incomplete or disputed evidence concerning bat maternity networks, white-clawed crayfish, botany, groundwater-dependent habitats, water quality, Source Protection Zones, private and public water supplies, historic hedgerows, veteran trees, archaeology, noise sources and strategic-road junctions.

The methodological concern is not that every baseline question must be free from all uncertainty. It is that material uncertainty must be identified, reflected in the significance judgment and resolved precautionarily where the consequences could be serious or irreversible. It should not be treated as a matter which can automatically be corrected through later surveys, contractor method statements or post-consent approval.

ExQ1 has now independently tested the same issue across multiple disciplines. The ExA asks why important matters concerning drainage and infiltration testing, soil characterisation, ground investigation, health mitigation, BESS fire assessment, transport measures and design remain dependent upon later work while present conclusions of acceptability have already been reached. The significance of those questions is methodological rather than topic-specific. They engage the same distinction identified throughout this chapter: whether later work merely refines an

already demonstrated acceptable solution, or whether it will determine whether such a solution exists at all.

That distinction should be applied consistently across the Scheme. Where later information may require relocation of infrastructure, a different foundation system, a different drainage strategy, greater ecological avoidance, altered access, additional stand-off, revised mitigation or deletion of a Work, the missing information goes to the acceptability of the authorised envelope rather than to routine implementation detail.

2.5.1 White-clawed crayfish and aquatic ecology

Statutory consultation proceeded without a complete downstream assessment of white-clawed crayfish across the connected chalk-stream system. The applicant's conclusion that the species is unlikely to be present appears to rely substantially on habitat appraisal and the absence of field signs, rather than on a complete presence-or-absence survey of all potentially affected connected habitat.

South Norfolk Council notes that the Aquatic Habitat Assessment found no field signs but questions reliance on that observation where a breeding population is known in the River Tas catchment. It considers that the conclusion appears to be based on habitat suitability rather than a definitive species survey. Norfolk County Council likewise states that absence of signs during a walkover cannot confirm absence and calls for robust biosecurity, pollution-prevention and sediment-management controls because of the species' vulnerability and the wider catchment context.

The methodological issue is not confined to whether crayfish occur within the Order Limits. The relevant question is whether construction and decommissioning activities may affect downstream connected habitat through sediment release, pollution, drilling-fluid breakout, altered groundwater or surface-water pathways, disease transmission, temporary crossings or disturbance of watercourse beds and banks.

That concern is reinforced by the Environment Agency's findings. APP/7.1 permits temporary construction access ramps over watercourses where haul routes cannot avoid them, while the final crossing methods and crossing schedule remain subject to detailed design. The Environment Agency requests firmer watercourse buffers, confirmation of trenchless methods at Main Rivers, improved drilling-fluid breakout procedures, fuller water-quality monitoring and clearer pollution controls for temporary works.

Accordingly, the absence of confirmed crayfish records at individual crossing points does not justify a conclusion that effects on the species or its supporting habitat are negligible. The assessment must follow the connected water system, identify downstream pathways and apply precautionary biosecurity, sediment and pollution controls wherever works could affect suitable habitat.

2.5.2 Bat survey coverage and maternity-colony function

The bat baseline must be sufficient to assess the Scheme at colony and landscape scale. South Norfolk Council records ten bat species, describes the assemblage as nationally important and identifies multiple barbastelle maternity colonies whose Core Sustenance Zones overlap the Order Limits. Norfolk County Council likewise identifies maternity roosts in surrounding woodland and considers the area potentially of national importance.

The December 2025 report by Jane Harris materially strengthens that concern. It explains that the South Norfolk Claylands support a barbastelle metapopulation dependent on scattered woodland, high hedges, pollarded trees, open fields and landscape connectivity. Using a 6 km Core Sustenance Zone, it identified six maternity colonies whose CSZs lie within or abut the Scheme area, including two colonies beside the proposed cable route and one expected to be surrounded by solar arrays. It also records that several woodlands, particularly at the eastern end of the Scheme, had not previously been surveyed.

The 2025 fieldwork assessed five woodland areas close to the Scheme. All contained suitable barbastelle roost features. Radiotracking confirmed a previously unknown maternity colony in Little Wood near Shotesham, with a pre-parturition emergence count of up to 36 bats and an estimated post-parturition colony of approximately 55, described as large in the Norfolk context. Acoustic results also predicted maternity colonies in Brooke Wood and Lower Spring Wood, while Spring Wood, Hempnall Green was confirmed as being used for roosting and feeding but requires further work to establish its status.

The report also establishes that relatively small belts of mature broadleaved trees within otherwise coniferous plantations may support maternity colonies and should not be dismissed without detailed assessment. It identifies ageing ash affected by dieback as an increasingly important source of split and lifting bark suitable for barbastelle roosts. This is particularly relevant to South Norfolk woodlands and means that woodland size, plantation classification or apparent commercial character cannot safely be used as proxies for low roost potential.

The Applicant should therefore identify the age and seasonal coverage of all bat data, whether every relevant adjoining woodland has been surveyed, whether effects were assessed colony by colony, and how overlapping CSZs, dark commuting routes, woodland edges, hedgerows, panel proximity, access tracks, lighting and construction disturbance were considered cumulatively. The assessment must include roosts outside the Order Limits where the Scheme may remove, fragment or disturb supporting habitat.

The Harris report expressly requires further radiotracking at Brooke Wood, Lower Spring Wood and Spring Wood, Hempnall Green, and assessment of additional candidate woodlands including Hempnall Little Wood, Winters Grove, Ringers Grove, Tindall Wood, Sexton Wood, Hedenham Wood, Park Plantation and smaller scattered woods

across the Scheme area. Its conclusion is clear: the effects of East Pye Solar cannot be properly assessed without a fuller understanding of barbastelle distribution and habitat use throughout the Scheme landscape.

That evidential gap also affects European Protected Species licensing. The tests of no satisfactory alternative and maintenance of favourable conservation status cannot be addressed reliably unless the maternity-colony network, roost resource, commuting routes and foraging habitat are sufficiently understood before consent.

2.5.3 Botanical baseline

BEPS's consultation-stage objection was that the PEIR did not demonstrate systematic botanical recording across all land affected or potentially affected by the Scheme. That concern is serious because the area is not botanically ordinary. The January 2026 letter from two experienced local botanists identifies multiple threatened and locally important species along roads, verges, tracks and field edges liable to be affected by access works, road widening and construction traffic. These include sulphur clover, listed as Endangered in Great Britain and Vulnerable in England; dyer's greenweed and pepper saxifrage, both listed as Endangered in Great Britain; and crosswort, listed as Near Threatened in England. The letter states that South Norfolk supports about 20% of the national sulphur clover population and that up to five of Norfolk's eight extant dyer's greenweed sites may lie within the affected area.

The concern is not limited to individual species. The letter describes irreplaceable assemblages surviving on ancient verges, drove roads, parish boundaries and former commons, including the nationally significant combination of dyer's greenweed, sulphur clover and spiny restharrow around Lodge Road, Hundred Lane, Carpenter's Walk and Prangle Lane. These communities may occupy strips only 30–50 cm wide and are therefore acutely vulnerable to road widening, vehicle overrun and verge damage. Their long continuity, associated fungi and local seedbanks mean that they cannot credibly be recreated elsewhere through generic seeding or BNG compensation.

A complete botanical baseline was therefore required before access routes, cable corridors and site entrances were fixed. The letter calls for full-area walkover surveys by a botanist of at least FISC level 5, with one survey in June for grassland vegetation and another after harvest but before sowing for arable flora, followed by redesign to avoid valuable areas and further consultation on any materially revised scheme.

The Applicant should now identify precisely what Phase 1, UKHab and targeted botanical surveys were completed, when, by whom, to what geographic extent and with what limitations. It must also explain how the results altered the layout, access strategy, cable route, BNG baseline and mitigation. Unless that is demonstrated, the ecological baseline may be understated, avoidance areas may have been missed and claimed BNG may rest on an unreliable valuation of existing habitat.

ISH1 has now resulted in a specific action requiring the Applicant to engage with local botanical evidence concerning rare species records and the effects of road widening

and access works, reinforcing BEPS's submission that the botanical baseline was not complete when significance conclusions were reached.

2.5.4 Other baseline omissions identified by consultees

The ecological concerns form part of a wider pattern. The Environment Agency identifies omitted or inadequately described groundwater-dependent terrestrial ecosystems, inaccurate Source Protection Zone information, missing water-quality data, insufficient ground investigation and incomplete assessment of private and public water supplies.

South Norfolk Council identifies uncertainty concerning historic hedgerows, veteran trees, great crested newt data, adjoining bat roosts, operational noise sources and contaminated land. National Highways identifies missing junction-level modelling and collision information for the strategic road network. Norfolk County Council identifies insufficient archaeological trenching in geophysically 'blank' areas and missing information on internal array cabling, preventing reliable assessment of combined below-ground effects.

These examples demonstrate that the problem is methodological rather than confined to one discipline: significance conclusions have repeatedly been reached despite material baseline uncertainty.

2.5.5 Consultation consequences of incomplete baseline information

Where material survey seasons or receptor assessments were incomplete during statutory consultation, consultees could not fully assess the likely significant effects or the effectiveness of the proposed mitigation. The Applicant must therefore explain what information became available later, how it altered the environmental assessment or Scheme design, and how affected consultees and communities were given a fair opportunity to respond.

Not every later survey necessarily required a fresh statutory consultation. The relevant question is whether later information materially changed the understanding of the baseline, likely effects, mitigation or development envelope. Where it did, the Applicant must demonstrate that consultation remained intelligent and informed.

2.6 Generic significance matrices are not calibrated to site-specific ecological sensitivity

The ES relies on standard sensitivity, magnitude and significance matrices, but does not adequately demonstrate that those matrices were adapted to the functional requirements of the receptors present. Barbastelle maternity colonies require dark and connected commuting and feeding networks; chalk streams and groundwater-dependent habitats may be affected by sediment, heat, drilling and altered flow pathways; white-clawed crayfish may be vulnerable to limited pollution or biosecurity

failures; and rare botanical assemblages or Countryside Stewardship habitat may have substantial functional value despite limited spatial extent.

Norfolk County Council's LLFA identifies internal uncertainty in Chapter 2. 'High' sensitivity combines national and international receptors, while 'Medium' includes receptors described as being of high importance. The relationship between value, importance, susceptibility and sensitivity is therefore unclear.

The Environment Agency also identifies materially different scale-of-effect matrices in Chapters 9 and 16 for comparable groundwater receptors. It considers that the Chapter 9 matrix may underestimate effects and prevent meaningful comparison between disciplines.

The matrix is not a neutral tool. Where receptor value is compressed, magnitude categories are broad and professional judgment is insufficiently explained, a small change in classification may determine whether a serious effect is labelled significant or not significant.

2.7 Generic mitigation assumptions do not demonstrate ecological functionality

The existence of a mitigation measure does not establish that it will function for the receptor concerned. Buffer strips, retained hedgerows, grassland beneath panels, replacement planting, sensitive lighting, trenchless crossings, pre-construction surveys and ecological supervision cannot automatically be treated as sufficient embedded mitigation.

The Applicant must demonstrate the receptor protected, the ecological function retained, the required width and condition, the securing mechanism, the period before the measure becomes effective, the monitoring regime, the response to failure and its continued effectiveness during replacement and decommissioning.

For barbastelle, retained hedgerows and generic buffers do not by themselves demonstrate maintenance of dark, unfragmented commuting and foraging habitat. For chalk streams and crayfish, general pollution-prevention wording does not resolve drilling-fluid breakout, sediment, temporary crossings, groundwater pathways or biosecurity risk. Ground-nesting bird habitat supported through Countryside Stewardship cannot simply be displaced or recreated without evidence of equivalent location, management, area and functional use.

APP/7.1 and APP/7.2 reinforce this concern because they defer important ecological controls to later walkovers, protected-species surveys, licensing, EcoCoW advice, lighting strategies and detailed management plans. Those documents may implement mitigation, but they should not be used to postpone determining whether the mitigation is feasible and sufficient.

2.8 Cumulative and functional-connectivity underassessment

Cumulative ecological assessment is not limited to adding hectares of habitat loss. It must assess the integrity and function of the ecological network affected by the components of this Scheme and by other developments.

2.8.1 Barbastelle Core Sustenance Zones

The assessment should map every confirmed and reasonably predicted maternity colony, overlapping Core Sustenance Zones, woodland and hedgerow links, dark corridors, panel proximity, access tracks, lighting nodes and construction disturbance. South Norfolk Council's evidence of twelve overlapping maternity-colony Core Sustenance Zones demonstrates why a broad bat-assemblage assessment is insufficient. Effects should be assessed by colony where the evidence permits and then cumulatively across the maternity network.

2.8.2 Hydrological connectivity

The assessment must connect BESS and substation locations, deep foundations, piling, cable trenches, HDD crossings, groundwater pathways, Source Protection Zones, groundwater-dependent habitats, chalk streams, aquatic ecology and water supplies.

The Environment Agency identifies risks from deep foundations, preferential pathways, cable heat, inaccurate Source Protection Zone descriptions and omitted groundwater-dependent ecosystems. It requires hydrogeological and foundation works risk assessments informed by intrusive investigation. These matters cannot be assessed reliably as separate ground, water and ecology effects where they share the same pathways and receptors.

2.8.3 Combined effects of the Scheme

The internal cumulative assessment should address the combined effects of solar arrays, BESS, substations, pylons, cable corridors, temporary compounds, access works, fencing, lighting, drainage and replacement cycles. The Scheme should not be divided into separate work packages where the same habitat network is exposed to repeated, overlapping or simultaneous disturbance.

The August 2026 NPPF now reinforces several of those receptor-network concepts expressly. Policy N2 requires ecological networks extending beyond the development site to be strengthened; Policy TR8 treats public rights of way as a network and recognises the importance of direct and circular recreational routes; Policy P3 requires cumulative pollution effects to be considered; and Policy TR6 requires reasonable future transport scenarios and cumulative effects to be assessed. ExQ1 similarly questions the Applicant's treatment of individual PRoWs in isolation and asks for consideration of sequential experience along circular routes. The principle is wider than

recreation: bats, residents, watercourses, heritage assets and settlements likewise experience connected and repeated effects rather than isolated technical-chapter events.

2.8.4 External cumulative schemes

The cumulative assessment must reflect the exceptional concentration of energy and infrastructure development in South Norfolk. Relevant schemes include other solar NSIPs and BESS projects, Norwich to Tilbury, offshore-wind cable and converter infrastructure, National Grid works, strategic highway schemes and major local development. These projects may overlap in programme, geography, haul routes, ecological networks and affected communities.

South Norfolk Council identifies cumulative risks to landscape, heritage, ecology, businesses and communities, including overlapping construction programmes, abnormal-load movements, road widening and associated loss of trees and hedgerows. Norfolk County Council likewise objects to the clustered loss of agricultural land and the cumulative effects of solar and transmission infrastructure across Norfolk, particularly in South Norfolk.

The assessment cannot lawfully stop at a list of projects or a comparison of individual land-take figures. It must assess whether combined construction traffic, habitat fragmentation, noise, lighting, hydrological disturbance and landscape industrialisation affect the same receptors at the same time. Where overlapping programmes remain uncertain, that uncertainty must be assessed rather than used to exclude effects.

2.9 Temporal methodology and ecological timescales

Chapter 2 applies generic duration categories that are not reliably adapted to ecological timescales. A two-year effect cannot automatically be treated as short-term merely because it is temporary in project terms. Nor can a 60-year loss of habitat function sensibly be described as temporary simply because eventual decommissioning is proposed.

The Environment Agency specifically rejects the ecology chapter’s classification of effects lasting up to two years as short-term for fish. It states that effects lasting more than six months should be assessed as permanent for relevant WFD purposes because two spawning or juvenile cohorts may be affected. This demonstrates why duration must be receptor-specific.

The same problem arises for maternity-colony function, mature hedgerows, woodland edges, soil communities and chalk-stream habitats. Their ecological function may take decades to recover, if it recovers at all. The methodology must also assess repeated BESS replacement, wholesale panel replacement and transformer replacement, including the disturbance of habitats that may have matured during operation. APP/7.2 confirms repeated BESS replacement and a major panel-replacement cycle during the 60-year life of the Scheme.

2.10 Future baseline and climate-dependent ecological change

The future baseline is insufficient if it assumes the receiving environment remains static while the Applicant's mitigation planting matures successfully. Over a 60-year operational period, ecological and hydrological conditions will change.

The assessment should address drought, groundwater decline, more intense rainfall, sediment and runoff risk, changing water temperatures, altered bat and bird distributions, habitat succession, planting mortality, invasive species and the future condition of surrounding habitats. Those changes may affect both receptor sensitivity and mitigation performance.

This is particularly important where the Scheme relies on long-term planting, drainage maintenance, watercourse protection and stable groundwater conditions. APP/7.2 shows that operational acceptability depends heavily on vegetation establishment and continued maintenance over decades. The Applicant cannot claim the future benefits of mature planting while failing to assess the future deterioration, displacement or increased vulnerability of the wider ecological network.

2.11 Professional judgment and unexplained ecological conclusions

Professional judgment is not objectionable in itself, but it must be transparent, evidence-based and precautionary where uncertainty is material. The ES repeatedly reaches conclusions of negligible, minor or not significant effect without always exposing the reasoning necessary to test them.

Examples include the conclusions that solar development will not materially affect barbastelle colony function; aquatic invertebrates, fish and crayfish will not be significantly harmed; cable heat will remain confined to the immediate cable vicinity; freshwater fish are of limited importance; private water supplies are of only moderate sensitivity; habitat fragmentation is minor; and generic buffers will be effective.

Several consultees dispute those judgments. The Environment Agency challenges the valuation of fish, the treatment of cable heat, groundwater pathways and water-supply sensitivity. South Norfolk Council disputes the sufficiency of the bat, noise and heritage judgments.

For each material conclusion, the Applicant should identify the evidence relied upon, the expert making the judgment, the assumptions adopted, the uncertainty recognised, the reason for the selected significance category and why a precautionary conclusion was not preferred. Without that audit trail, professional judgment becomes an unreviewable route to downgrading effects.

2.12 Rochdale envelope and changing ecological effects

The ecological assessment must correspond to the same maximum design configuration assessed elsewhere. Ecological effects may vary materially according to whether the Scheme uses 4.5 metre tracker panels or lower fixed panels, panel spacing and movement, proximity to woodland and watercourses, lighting design, BESS and substation footprint, foundation depth, cable burial depth, HDD depth, launch-pit location, access alignment and vegetation clearance.

APP/7.18 preserves substantial flexibility across those parameters. The Applicant must therefore demonstrate which maximum configuration was assessed in Chapter 8 and whether it is consistent with the maxima used in the landscape, water, noise and heritage chapters.

The Environment Agency's finding that maximum foundation depths are absent for some substations is particularly serious because ecological conclusions concerning groundwater-dependent habitats cannot be reliable if the vertical extent of disturbance is unknown. A flexible envelope is permissible only where the realistic worst case has been assessed and secured.

ISH1 has made the Rochdale-envelope issue more concrete. The Applicant confirmed that the Illustrative Masterplan is not the final layout and that important components remain subject to post-consent choice. The ExA consequently sought further information concerning overplanting, panel ratings, hectares per MW, panel type and location, minimum panel separations, conversion-unit and switchroom numbers and locations, fencing, lighting, substation technology and whether the authorised envelope could permit a materially greater installed capacity than that presented. These are not merely aesthetic matters. They affect landscape, heritage, ecology, noise, drainage, transport, ground conditions, aviation and cumulative effects. The EIA must therefore demonstrate that every materially different configuration permitted by the DCO remains within a discipline-specific and whole-Scheme reasonable worst case.

2.13 Outline controls and excessive deferral

The application relies heavily on future documents to resolve matters that may determine whether significant effects arise. APP/7.1 defers pre-construction walkovers, further protected-species surveys, licensing, detailed water management, crossing schedules, hydrogeological assessment and construction methods. APP/7.2 defers sensitive lighting, future ecological management, EcoCoW controls for replacement works, possible later badger licensing and detailed operational mitigation.

Post-consent information is not objectionable merely because it is produced later. The critical distinction is whether it refines implementation of an already assessed and acceptable solution, or whether it supplies information required to determine whether such a solution exists. East Pye repeatedly approaches that boundary.

Several of the outstanding matters are not questions of detailed design but questions of environmental knowledge. The Applicant still lacks, or has only recently begun to obtain or supplement, important information concerning botany, aquatic ecology, bat functional habitat, aviation safety, high pressure gas pipeline safety, private water supplies and hydrogeology. Those matters are capable of determining where development can safely occur, what avoidance is required, what mitigation is feasible and whether the authorised development can remain within the effects assessed. They therefore go to the environmental acceptability of the authorised envelope itself, not merely to its later implementation.

The distinction is fundamental. Later work may legitimately refine an already demonstrated acceptable solution. It should not be used to discover, after consent, whether an acceptable solution exists.

The correct test is simple: does the later document merely implement an already assessed and fixed outcome, or will it determine whether an effect occurs, how large it is or whether mitigation is feasible? If the latter, the environmental issue has not been resolved at examination stage.

Future surveys may update method statements, but they cannot lawfully substitute for an adequate baseline. Detailed design may refine mitigation, but it cannot be allowed to determine later whether protected-species habitat, groundwater pathways or watercourse crossings are acceptable. The present level of deferral materially weakens the reliability of the ES conclusions.

ExQ1 now provides direct examples. The ExA asks how an adequate ground, groundwater and contamination baseline can be demonstrated without application-stage intrusive investigation; how drainage design can be finalised where infiltration testing and hydraulic detail remain outstanding; how health and fire conclusions can be relied upon where future assessment is still required; and which transport and design measures remain dependent upon later approval. Those questions support BEPS's submission that some matters currently described as 'detailed design' are in substance pre-consent questions of feasibility and environmental acceptability.

2.14 Consequences for consultation, HRA and EPS licensing

2.14.1 Consultation

Where material ecological information was absent or incomplete during statutory consultation, consultees could not properly test the significance of effects or the adequacy of mitigation. That concern arises particularly in relation to barbastelle maternity colonies, botanical interest, white-clawed crayfish and hydrological connectivity. The later Harris report identified a new maternity colony at Little Wood, predicted further colonies at Brooke Wood and Lower Spring Wood, and concluded that the Scheme's effects could not be properly assessed without fuller knowledge of barbastelle distribution and habitat use. The botanical objection likewise identified

threatened species and irreplaceable verge assemblages not demonstrated to have been systematically surveyed at PEIR stage.

The Applicant must therefore show what material evidence emerged after consultation, how it changed the assessment or design, and whether affected consultees and communities had a fair opportunity to respond. The issue is not that every later survey required a fresh consultation. It is whether the later evidence materially altered the environmental case.

2.14.2 Habitats Regulations Assessment

The EIA defects do not automatically render the HRA unlawful. They do, however, undermine its evidential foundation where conclusions depend on ecological connectivity, groundwater pathways or cumulative effects that remain incompletely understood.

APP/2.10 shows the Scheme in the wider context of European sites, SSSIs and ancient woodland. The Environment Agency has identified omitted groundwater-dependent terrestrial ecosystems, unresolved hydrogeological pathways and risks from piling, trenchless drilling and cable heat. If those pathways could connect the Scheme to European sites or supporting habitats, screening and in-combination conclusions cannot safely rest on generic mitigation or later risk assessments.

2.14.3 European Protected Species licensing

The relevant EPS licensing tests are a permitted statutory purpose, no satisfactory alternative, and maintenance of the species at favourable conservation status. IROPI is not the applicable EPS licensing test.

Those tests cannot be considered reliably while the barbastelle maternity network remains incompletely defined. The Harris report confirmed a new maternity colony, predicted further colonies and identified additional woodlands requiring investigation. South Norfolk Council also records multiple overlapping Core Sustenance Zones and raises the likelihood of further colonies in unsurveyed woodland.

Without a sufficiently complete understanding of roosts, commuting corridors, foraging habitat and cumulative effects, the Applicant cannot demonstrate that alternatives have been properly considered or that favourable conservation status can be maintained. Licensing cannot be treated as a routine post-consent formality.

2.14.4 Planning balance

These methodological uncertainties materially reduce the weight that can be placed on the Applicant’s repeated conclusions that effects are negligible, minor or fully mitigated. They also weaken the proportionality and residual-harm assessment under EN-1 and EN-3.

Where the baseline is incomplete, the design remains flexible and mitigation is deferred, the decision-maker should not assume the most favourable outcome. Uncertainty concerning serious or irreversible harm must weigh against consent unless resolved during examination.

The August 2026 NPPF W3 does not reduce the need for robust environmental information. Substantial weight to renewable-energy benefits does not convert an uncertain environmental effect into a known one. The planning balance can only be completed against effects which have been adequately identified and assessed.

2.15 Wider cross-topic manifestations of the same defect

The methodological problem is not confined to ecology. The Environment Agency identifies inconsistent significance matrices between Chapters 9 and 16, missing maximum foundation depths, incomplete groundwater evidence and inaccurate Source Protection Zone descriptions. National Highways identifies missing junction-level modelling, collision assessment and sufficiently granular cumulative traffic analysis.

South Norfolk Council says the noise assessment does not demonstrate the true rural worst case, omits or inadequately explains key source data and relies on unconfirmed mitigation. It also questions the effectiveness of landscape planting and the completeness of hedgerow and veteran-tree evidence. Norfolk County Council identifies insufficient archaeological trenching in apparently blank areas, missing internal array-cabling information and inconsistencies in the temporal methodology and future baseline.

The same pattern recurs throughout: incomplete baseline evidence, broad professional judgment, missing maximum parameters, generic mitigation and post-consent deferral are used to support findings of no significant effect.

The hearing record provides several further examples of the same methodological defect. The Site 7 haul-road crossing of the high-pressure gas pipeline remained technically unexplained at ISH1. The Applicant was required to provide a standalone aviation-safety document addressing matters beyond glint and glare. The ExA required further explanation of the National Grid substation's capacity for other projects, the certainty and timing of its delivery and the cumulative or downstream consequences of future third-party use. It also required the Applicant to explain how adverse effects on some individuals are translated into a conclusion of no significant population-level health effect, and whether concern or anxiety arising from perceived risks has been assessed separately. These are not isolated requests for clarification; they show that the Scheme's environmental conclusions continue to depend upon interactions and assumptions which have not yet been fully reconciled.

2.16 Methodological consequences and overall finding

First, the methodology is not demonstrably tailored to the ecological and hydrological characteristics of the East Pye landscape. It treats a connected system of woodland, hedgerows, aquifers, streams, verges and farmland mosaics through largely generic and parcel-based assessment structures.

Second, the baseline remains incomplete or disputed in material respects, including barbastelle maternity networks, white-clawed crayfish, botanical interest, groundwater-dependent habitats, water quality, Source Protection Zones and other receptors.

Third, generic matrices and mitigation templates have not been shown to reflect the functional requirements of the receptors affected. Fourth, cumulative, hydrological and ecological connectivity have not been integrated adequately. Fifth, important matters remain deferred to later surveys, management plans, licences and design decisions.

In those circumstances, the ES cannot reliably determine the realistic scale and significance of effects across the full Scheme. The weakness is not confined to one ecology appendix. It affects consultation, cumulative assessment, protected-species licensing, water and groundwater assessment, the mitigation case and the weight to be given to residual-harm conclusions in the planning balance.

The methodological consequence is therefore now clearer than when this Written Representation was first prepared. The problem is not simply that some chapters contain gaps or that some mitigation remains to be detailed. The Examination has itself identified repeated instances in which the information needed to understand the receptor, define the authorised development, identify the reasonable worst case or test the effectiveness of mitigation remains outstanding while the ES has already reached conclusions of no significant effect.

The EIA can only support development consent if the Examining Authority can identify a coherent evidential chain for each material issue: baseline receptor → source/pathway → magnitude and significance → avoidance and mitigation → residual effect → secured DCO control.

Where the receptor remains incompletely defined, the pathway is uncertain, the design is still materially flexible or the mitigation is not yet demonstrated and secured, the residual-effect conclusion is necessarily provisional rather than established.

The ExA should therefore distinguish explicitly between matters which may legitimately be refined after consent and matters which must be resolved during Examination because they determine whether the Scheme is environmentally acceptable at all. Where the latter cannot be resolved within the assessed DCO envelope, the relevant flexibility or Work should be reduced, relocated or removed rather than deferred.

2.17 Examination questions

The Applicant should be required to provide:

1. A scheme-wide ecological-network plan showing statutory and non-statutory sites, ancient woodland, priority habitats, watercourses, ponds, known and predicted maternity colonies and overlapping Core Sustenance Zones.
2. A complete survey schedule identifying dates, seasons, coverage, limitations and unsurveyed areas.
3. Full details of Phase 1, UKHab and targeted botanical work across Sites, cable corridors, accesses and temporary works areas, and how that evidence informed design and BNG.
4. A colony-specific barbastelle assessment, including cumulative effects within overlapping Core Sustenance Zones and impacts on roosts outside the Order Limits.
5. The full evidential basis for concluding that white-clawed crayfish and other aquatic receptors will not experience significant effects.
6. An integrated assessment of groundwater, cable heat, trenching, HDD, piling, pollution pathways and terrestrial and aquatic ecology.
7. A schedule of every ecological conclusion dependent on future surveys, licensing or detailed design.
8. An explanation of how generic duration categories were adapted for fish, bats, breeding birds, ancient woodland and other receptors.
9. A reconciliation of the sensitivity and significance methodologies in Chapters 2, 8, 9 and 16.
10. An assessment showing how ecological effects change under the maximum tracker-panel, BESS, substation, pylon, piling, trenching and HDD envelope.

2.18 Remedies sought

The Applicant should be required to complete and disclose all necessary seasonally appropriate surveys, including a complete botanical baseline, updated maternity-colony assessment, adequate crayfish and aquatic ecology evidence, corrected statutory-site, GWDTE and Source Protection Zone information, and transparent survey limitations.

The ES should then be revised to provide a landscape-scale ecological assessment, colony-specific barbastelle analysis, integrated groundwater, surface-water and ecology assessment, receptor-specific duration criteria, cumulative functional-connectivity assessment and reconciled significance matrices.

The Scheme should be redesigned to remove or substantially reduce development within the most sensitive ecological networks, secure wider fixed buffers and dark corridors, avoid development immediately adjoining maternity-colony woodland, fix watercourse-crossing principles and impose tighter controls on lighting, piling, HDD and cable routing.

There should be a consolidated schedule identifying every material item of post-consent information and classifying it either as implementation detail or as information

capable of altering the acceptability, location or design of a Work; a cross-topic spatial reconciliation showing where mitigation, biodiversity land, retained agricultural land, cabling, access and other Works overlap or compete for the same land; a whole-Scheme reasonable-worst-case schedule identifying, for each flexible component, the configuration assessed in each environmental discipline and the DCO control which prevents a worse outcome.

The DCO should not rely on ‘where practicable’ wording for essential mitigation. It should prohibit material departure from assessed parameters, require consultation with Natural England, the Environment Agency and relevant local authorities, impose objective approval criteria and monitoring triggers, and prevent commencement where essential surveys, licences or risk assessments remain outstanding.

Unless these deficiencies are corrected during examination, the Examining Authority cannot safely rely on conclusions that ecological, hydrological and cumulative effects are minor, negligible or not significant. The primary remedy is refusal of the Scheme as presently defined. Alternatively, no favourable recommendation should be made unless the necessary evidence, revised assessments, avoidance measures and binding controls have been provided, consulted upon where necessary, examined and secured.

Chapter 3: The Order Limits

3.1 Overarching Objection to the Applicant's Treatment of Site and Surroundings

BEPS objects to the Applicant's treatment of site and surroundings on the basis that it does not provide a sufficiently complete, integrated or legally reliable account of the receiving environment against which the likely significant effects of the Scheme must be identified and assessed.

For a development of this scale, extent, duration and complexity, the description of site and surroundings is not a merely introductory exercise. It forms part of the environmental baseline on which the wider assessment depends. If that baseline is incomplete, artificially segmented or methodologically misconceived, the subsequent assessment is liable to misstate the sensitivity of the receiving environment, understate likely significant effects, and distort the planning balance.

The Scheme is not a limited intervention in a simple or homogeneous landscape. It is a dispersed, infrastructure-intensive proposal extending across a broad tract of South Norfolk countryside and involving generating areas, substations, battery storage, grid connection works, cable routes, access arrangements and associated development. The receiving environment is correspondingly complex and must be assessed as such.

Since this Written Representation was prepared, the National Planning Policy Framework was replaced on 17 August 2026. The Energy NPSs remain the primary policy framework for this NSIP, but the current NPPF materially reinforces the importance of correctly characterising the receiving environment. Policy N2 requires development proposals to consider the environmental qualities of the land proposed for development, including habitats, landscape character and the countryside; to take account of the quality and grade of agricultural land; to connect to and strengthen ecological networks extending beyond the site; and to conserve established natural features where possible. Policy DP3 similarly requires development to respond to the history, character and features of its site and setting so that it integrates with and enhances its surroundings. Those policies are difficult to apply reliably if the receiving environment is first divided into artificial development parcels and its landscape, ecological, agricultural, hydrological and historic functions are considered separately rather than as characteristics of one place.

3.2 Fragmentation of the Receiving Environment

The first and most fundamental defect in the Applicant's approach is fragmentation. The Scheme is treated as a series of separate sites, parcels, corridors and infrastructure components, rather than as a single development introduced into one coherent environmental and cultural landscape.

That is a methodological error, not a mere matter of presentation. The affected area is not properly understood by dividing it into operational compartments. The environmental reality is one of continuity and connection: fields are linked to lanes; lanes to settlements; settlements to heritage assets; heritage assets to their wider setting; woodlands to foraging habitat; habitat to hydrology; hydrology to aquifers, drains, ditches and private water supplies; and all of those elements to the ordinary use and experience of the countryside by residents, landowners and the public.

A parcelised description therefore risks obscuring the true scale and nature of the Scheme's interaction with its surroundings. It encourages an artificially narrow understanding of impact and tends to suppress the fact that the Scheme would operate across one living landscape rather than within a series of environmentally discrete compartments.

3.3 Failure to Describe Interrelationships

The second defect is the failure to describe adequately the interrelationships that define the site and its surroundings. In this part of South Norfolk, the relevant constraints and sensitivities are not discrete topics capable of being understood in isolation. They are overlapping aspects of one place.

The affected area is characterised by a settled agricultural landscape of heavy clay soils, productive farmland, historic villages and dispersed farmsteads, narrow rural roads, public rights of way, mature hedgerow patterns, designated and undesignated heritage assets, protected and ancient woodland, protected species habitat, stewardship-managed land, sensitive water environments, aquifer-linked systems, private water supplies and active aviation interests.

The significance of the landscape lies not merely in the presence of those individual receptors, but in their relationship to one another. Hydrology cannot lawfully be reduced to drainage features alone, because field drains, ditches, culverts, groundwater pathways, abstraction points and downstream receptors form connected systems. Heritage cannot lawfully be reduced to a list of designated assets, because significance depends in part on openness, tranquillity, long views, dark skies, settlement form and the continuing legibility of historic landscape patterns. Ecology cannot lawfully be reduced to habitat parcels, because species movement, foraging function, disturbance, lighting and hydrological dependency operate across the wider landscape. Agricultural land cannot lawfully be reduced to acreage alone, because soil structure, compaction risk, drainage, stewardship and reversibility are interdependent.

A lawful account of site and surroundings must therefore do more than identify the location of receptors or describe the land within a red-line boundary. It must explain how the landscape functions as an interconnected whole and how the Scheme's component parts would interact with that whole.

3.4 Understatement of Environmental Sensitivity

A further consequence of the Applicant's fragmented approach is that it tends to understate the sensitivity of the receiving environment. The land affected is not generic countryside. It is a historically settled, environmentally constrained and agriculturally productive landscape with multiple overlapping protections, vulnerabilities and functional relationships.

Its sensitivity derives not only from designated assets or mapped constraints viewed individually, but from the cumulative coexistence of heritage significance, ecological dependency, hydrological vulnerability, agricultural productivity, rural amenity, settlement character and infrastructure pressure. A description that isolates those matters from one another will almost inevitably dilute the apparent seriousness of the whole.

That is particularly material where the Scheme includes substantial industrial elements, including large-scale substations, battery storage and grid connection infrastructure, whose effects are not confined to the fields in which they sit. Such infrastructure alters the character, risk profile and lived experience of the wider area. A proper account of site and surroundings must reflect that transformation.

3.5 Failure to Treat the Area as a Living Historic and Environmental Landscape

The Applicant's approach also fails to treat the affected area as a living landscape. This is not an empty spatial envelope available for abstract allocation to infrastructure. It is countryside shaped by long-settled agricultural use, historic routeways, stewardship, ecological processes, inherited patterns of landholding, and the long-term relationship between villages, farmsteads, churches, lanes, fields and woodlands.

That matters because the assessment of likely significant effects must engage with the actual place likely to be affected, not a simplified development platform. A site-and-surroundings chapter that omits the lived, functional and historical character of the landscape risks misdescribing the baseline itself.

In this case, the landscape must be described as a living historic and environmental system in which agricultural management, habitat use, settlement pattern, rights of way, tranquillity, heritage setting, groundwater conditions and rural infrastructure all contribute to the significance and sensitivity of the area. Any treatment that fails to do so is materially deficient.

3.6 Consequences for the EIA as a Whole

These defects are not confined to a single chapter. They go directly to the adequacy of the environmental assessment as a whole. The site-and-surroundings chapter provides the baseline framework for subsequent topic assessments. If that framework is partial, compartmentalised or misleading, the defect is carried forward into later judgments on significance, mitigation and residual effect.

A fragmented baseline is liable to distort the assessment of landscape and visual effects by treating change as localised rather than systemic. It is liable to distort heritage assessment by

severing assets from their wider agricultural and spatial context. It is liable to distort ecology by underplaying functional habitat linkages and landscape-scale effects. It is liable to distort water assessment by failing to capture pathway connectivity. It is liable to distort soils and agricultural land by ignoring the interaction of soil type, drainage, management and reversibility. It is liable to distort transport, amenity and human health assessment by overlooking how burdens accumulate across settlements, lanes and community spaces.

It is equally liable to distort cumulative assessment. The cumulative burden of the Scheme cannot be properly understood if the baseline itself has already been artificially broken apart into separate technical components. In that respect, the inadequacy of the site-and-surroundings chapter is not incidental: it is capable of infecting the assessment of cumulative and in-combination effects across the Scheme as a whole.

3.7 Historic Settlement Pattern, Heritage Context and Rural Character

The Applicant's treatment of site and surroundings fails to reflect the fact that the Scheme is located within a historically settled and heritage-rich rural landscape whose character is inseparable from its pattern of villages, hamlets, farmsteads, churches, lanes, field systems and long-established agricultural use.

This is not a landscape in which heritage significance is confined to a small number of designated assets considered individually. Rather, the significance of the area derives to a substantial extent from the historic settlement pattern itself: the relationship between dispersed settlements and open farmland; between parish churches and their surrounding countryside; between historic farmsteads and the land historically associated with them; and between the surviving grain of lanes, boundaries and fields and the wider legibility of the historic landscape.

Rural character in this part of South Norfolk is therefore not simply visual in the narrow sense. It is spatial, historical and experiential. It arises from the continued readability of a settled agrarian landscape in which built form remains closely related to topography, field pattern, agricultural use and long views across open countryside. The contribution made by that setting is not incidental. It is often fundamental both to the significance of heritage assets and to the character of the area more generally.

In such a landscape, the distinction between 'heritage' and 'surroundings' cannot lawfully be treated as sharp or self-contained. The surroundings are part of the heritage context. The agricultural land between settlements is not empty space, but part of the setting in which historic assets are experienced and understood. The open character of the land, the continuity of historic routeways, the absence of large-scale industrial structures, the persistence of dark skies, and the ordinary relationship between settlement edges and surrounding fields all contribute to the significance of the place.

The Scheme would introduce industrial-scale solar infrastructure, substations, battery storage, security fencing, lighting, access works, cable works and associated engineered development into that historic rural context. The effect is not confined to direct physical change within

development footprints. It extends to the wider transformation of the setting in which historic settlements and assets are experienced. That includes effects on openness, rural composition, visual coherence, tranquillity, sequential views, and the legibility of the historic landscape as an agricultural system rather than an energy-industrial corridor.

The relevant heritage context must therefore be understood at landscape scale. A site-and-surroundings chapter is deficient if it treats historic villages, churches, farmsteads, listed buildings, conservation areas and undesignated historic features as isolated receptors detached from the countryside that gives them meaning. It is equally deficient if it treats the land between them as development space of limited significance simply because it is not itself designated. In a landscape of this kind, intervening farmland frequently performs a crucial heritage function by preserving separation, openness, historic approaches, key views and the agricultural setting of rural settlements and assets.

BEPS's position is that the Scheme area must be understood as part of a wider historic landscape of substantial sensitivity, in which numerous designated and undesignated heritage receptors are embedded within, and derive significance from, their rural surroundings. The historic environment here is not limited to individual buildings or sites, but includes settlement form, landscape pattern, routeways, field enclosure, visual relationships and the long continuity of agricultural land use.

That proposition is now supported by BEPS's final independent Heritage Impact Assessment. Following site visits to the potentially affected listed buildings and Conservation Areas, that assessment identifies less-than-substantial harm from the principal built development to 36 designated heritage assets and adverse effects upon 41 designated heritage assets overall once associated road and abnormal-load works are included. The affected assets include two Grade I and three Grade II* listed buildings. The importance of that evidence for Chapter 3 is not simply numerical. The HIA identifies recurring attributes of setting which the Applicant's more parcelised baseline tends to understate: openness and enclosure, topography, historic and functional relationships, group value, historic agricultural use, tranquillity, remoteness, seasonal visibility and the experience of moving through the landscape.

The HIA therefore reinforces the central proposition of this chapter. The farmland separating churches, farmsteads, villages and historic routeways is not environmentally or historically neutral simply because it is undesignated. In many locations it makes a positive contribution to significance through openness, agricultural continuity, views, approaches and historic relationships. Screening development from view may therefore reduce visibility while simultaneously changing the very openness or spatial relationship which contributes to heritage significance.

That point is especially important because the cumulative experience of the area depends on repeated and overlapping encounters with this historic rural character. The significance of one village or church cannot be fully understood without regard to its relationship with neighbouring settlements, surrounding farmland, connecting lanes and wider views. Likewise, the effect of the Scheme cannot properly be assessed by examining each heritage asset in isolation while ignoring the broader transformation of the rural matrix within which those assets sit.

A lawful and reliable description of site and surroundings must therefore identify expressly the historic settlement pattern, the density of heritage receptors, the contribution made by open agricultural land to setting and significance, and the importance of rural character as a heritage value in its own right. Any treatment that fails to do so materially understates the sensitivity of the receiving environment.

Accordingly, BEPS objects to any account of site and surroundings that presents this area as merely a collection of development parcels adjacent to selected heritage receptors. The correct baseline is a coherent historic rural landscape in which settlements, heritage assets and countryside form an interdependent whole. Unless that baseline is properly described, the subsequent assessment of heritage, landscape, amenity and cumulative effects will be fundamentally weakened.

3.7.1 Agricultural Land, Heavy Clay Soils, BMV Land and the Working Countryside

The Applicant's treatment of site and surroundings is also deficient because it fails to describe the Scheme area properly as a working agricultural landscape, rather than merely a spatial envelope within which energy infrastructure may be accommodated. In this part of South Norfolk, agricultural land is not a neutral backdrop. It is the principal land use, the basis of the area's historic and present character, and a core element of the environmental baseline against which the likely significant effects of the Scheme must be assessed.

The affected area comprises actively managed farmland forming part of a wider productive rural system. Its agricultural significance is not limited to the fact of cultivation. It includes land quality, soil function, drainage behaviour, field structure, farm viability, stewardship value and the continuing role of agriculture in sustaining the character and economy of the countryside. Any lawful description of site and surroundings must therefore identify the land not simply as open space, but as an operational agricultural resource with environmental, economic and landscape significance.

That requirement is especially important here because a substantial proportion of the proposed solar parcels lies on Best and Most Versatile ('BMV') agricultural land. The Applicant itself recognises that BMV land comprises Grades 1, 2 and 3a, and that national policy requires applicants to seek to minimise impacts on such land and, where agricultural land is necessary, to prefer poorer quality land where possible. The detailed surveys identify approximately 397.4 ha of Grade 2 and 431.7 ha of Grade 3a land, amounting to approximately 829.1 ha of surveyed Best and Most Versatile agricultural land. That represents approximately 78.7% of the surveyed land addressed in BEPS's later agricultural analysis, while part of the Cable Route Corridor remains unsurveyed. BMV land is therefore not an incidental feature of the Order Limits but one of the defining characteristics of the receiving environment.

The significance of that figure is heightened by the fact that this is not simply a question of abstract land classification. In South Norfolk, agricultural quality, soil condition and landscape character are closely connected. Productive farmland forms the physical and economic fabric of the countryside. Where land is both visually integral to the rural landscape and agriculturally

valuable, development upon it gives rise to a compounded form of harm: to land use, to rural character, to local farming systems and to the long-term integrity of the agricultural resource.

The Applicant's approach is also inadequate because it does not treat soils as a central characteristic of the place. This is a landscape of heavy clay soils, with all the consequences that follow from that condition: susceptibility to compaction, smearing, rutting, structural degradation, impeded drainage, difficult restoration and long-term uncertainty as to reversibility following intensive engineering activity. Those are not secondary technical matters to be addressed later in management documents. They are part of the description of the site itself. A lawful account of site and surroundings must recognise that the agricultural land affected is not only extensive and in significant part BMV, but also physically vulnerable.

That vulnerability is fundamental to the character of the working countryside in this area. Heavy clay soils shape patterns of cultivation, field management, drainage infrastructure and agricultural resilience. They also influence ecological conditions, surface-water behaviour, accessibility, and the practical consequences of construction traffic, piling, trenching, cable installation, substation works and repeated operational access. The interaction between soil type, agricultural quality and hydrological behaviour means that soils cannot lawfully be treated as a narrow topic chapter issue divorced from the general description of site and surroundings.

Nor is it sufficient to suggest that the continued presence of some agricultural activity would preserve the essential agricultural character of the land. The relevant baseline question is not whether fragments of ancillary grazing might persist around or beneath infrastructure, but whether the land would continue to function as productive, high-quality agricultural land forming part of a coherent working countryside. In BEPS's view, industrial-scale solar development across predominantly BMV farmland, particularly on heavy clay soils vulnerable to structural damage, cannot be described as leaving the agricultural character of the site materially unchanged.

The working countryside in this area also includes land subject to agri-environment and stewardship functions, including land managed for ecological purposes alongside food production. That reinforces the point that agricultural land here performs multiple roles simultaneously. It is productive land, ecological land, landscape land and heritage setting. A site-and-surroundings chapter that reduces it to available acreage or generic field parcels materially understates its significance.

The proper baseline must therefore recognise at least four connected propositions. First, the Scheme is proposed within a living agricultural landscape, not on surplus or degraded land. Second, a substantial proportion of the solar parcels are, on BEPS's analysis, located on BMV land. Third, the area is characterised by heavy clay soils whose physical vulnerability bears directly on agricultural function, drainage and reversibility. Fourth, the agricultural land affected contributes not only to food production, but to the wider rural character, environmental function and historic continuity of the South Norfolk countryside.

Accordingly, BEPS objects to any account of site and surroundings that does not expressly describe the affected area as a productive and sensitive agricultural landscape, including the

prevalence of BMV land and the importance of heavy clay soils to the functioning of the countryside. Unless that baseline is properly stated, the subsequent assessment of soils, agricultural land, landscape character, ecology, hydrology, reversibility and cumulative effects will be materially weakened from the outset.

The August 2026 NPPF now makes the relevance of that baseline still clearer. Policy N2 requires the quality of agricultural land, including BMV status **and its grade**, to be taken into account and states that, where significant development of agricultural land is necessary, areas of poorer-quality land should be used where possible. The agricultural baseline therefore needs to distinguish not merely between "agricultural" and "non-agricultural" land but between the different grades and physical characteristics of the land which the Scheme would occupy.

3.8 Water Environment, Drainage Connectivity and Private Water Supplies

The Applicant's treatment of site and surroundings is further deficient because it does not describe the affected area as a hydrologically connected environment in which fields, drains, ditches, culverts, groundwater pathways, aquifers, abstractions and downstream receptors operate as parts of one system. In this landscape, water environment constraints are not incidental or localised. They are fundamental to the character, functioning and sensitivity of the site and its surroundings.

The Scheme is not proposed on land that can lawfully be understood as hydrologically self-contained. The surrounding countryside is shaped by a network of surface and subsurface connections: field drains, drainage ditches, ordinary watercourses, culverts, groundwater movement, aquifer-linked pathways and catchment relationships. These features do not stop at field boundaries or red-line boundaries. They connect agricultural land, settlements, ecological receptors, private water supplies and downstream water environments into a single hydrological system.

That point is particularly important in a scheme involving extensive ground disturbance, cable trenching, substation works, battery storage, access construction, permanent foundations, drainage interventions and long-term operational infrastructure. The effects of such works cannot be understood solely by reference to the immediate footprint of individual components. The relevant question is how those components interact with the wider water environment, both on the surface and below ground.

In this part of South Norfolk, the water environment is also inseparable from the agricultural and environmental character of the landscape. Drainage infrastructure exists not merely as an engineering feature, but as part of the long-term management of heavy agricultural soils, cultivation patterns and water movement across the countryside. Groundwater conditions influence agricultural viability, habitat function, building conservation, private water supply security and the sensitivity of downstream receptors. A lawful description of site and surroundings must therefore recognise hydrological connectivity as a defining characteristic of the place.

The same is true of private water supplies. In a dispersed rural landscape such as this, private wells, boreholes and other abstractions are not exceptional or irrelevant receptors. They are part of the ordinary infrastructure of habitation and land use. Their existence materially increases the sensitivity of the receiving environment because it means that contamination risk, drawdown, pathway creation, altered drainage behaviour and accidental release events may affect not only abstract environmental receptors but real households, farms and businesses dependent on local groundwater.

A site-and-surroundings chapter is therefore inadequate if it fails to identify expressly the presence, significance and vulnerability of private water supplies across the Scheme area and its zone of influence. The baseline must include not only mapped watercourses and flood zones, but the wider pattern of hydrological dependency in the landscape: aquifer sensitivity, groundwater connectivity, drainage routes, abstraction points, receptor locations and the potential for interaction between them.

This is particularly material where the Scheme includes substantial electrical infrastructure, including substations and battery storage, because those elements introduce contamination and major accident pathways that are qualitatively different from ordinary agricultural use. Oil, firewater, construction pollutants, disturbed contaminated ground, sediment mobilisation and other hazardous releases must be understood not simply as on-site matters, but as risks operating through a connected hydrological system. If the receiving environment is described in fragmented or over-localised terms, those pathways are liable to be understated from the outset.

Nor is it sufficient to treat water environment issues as confined to flood risk in the narrow sense. Flooding is only one aspect of hydrological sensitivity. The relevant baseline also includes groundwater vulnerability, recharge and flow pathways, chalk-stream catchment sensitivity, water quality, drainage interdependence, water supply security and the relationship between land disturbance and downstream ecological receptors. A chapter on site and surroundings that reduces water to mapped flood constraints alone does not describe the real environmental conditions of the area.

The proper baseline must therefore recognise that the Scheme is proposed within a living hydrological landscape. The fields, drainage systems, aquifers, abstractions, settlements and ecological receptors potentially affected are interdependent. Water movement across this countryside is not incidental to the site; it is one of the principal ways in which effects may travel across it.

Accordingly, BEPS objects to any account of site and surroundings that does not expressly describe the affected area as a hydrologically connected and groundwater-sensitive environment, including the importance of drainage connectivity and the presence and vulnerability of private water supplies. Unless that baseline is properly stated, the subsequent assessment of water environment effects, major accident risk, human health, ecology, agricultural impact and cumulative effects will be materially weakened.

3.9 Ecology, Woodland Networks and Functional Habitat Connectivity

The Applicant's treatment of site and surroundings is also deficient because it does not describe the affected area as a functioning ecological landscape in which woodlands, hedgerows, field margins, watercourses, pasture, arable land and managed habitats operate together as interconnected components of a wider ecological system. In this part of South Norfolk, ecological value does not reside solely within isolated designated sites or discrete habitat parcels. It arises to a substantial degree from the connectivity of the landscape as a whole.

The Scheme is proposed within a countryside characterised by interlocking woodland networks, mature hedgerow systems, agricultural land used by protected and priority species, drainage features, and areas of land subject to ecological management and stewardship. The significance of these features lies not merely in their individual presence, but in the functional relationships between them: movement, foraging, commuting, breeding, shelter, hydrological dependency and seasonal use across the wider landscape.

That ecological reality cannot lawfully be captured by describing habitat on a parcel-by-parcel basis alone. Species do not observe development boundaries. Functional habitat extends across fields, routeways, hedgerows, woodland edges, grass margins, wet features and connecting corridors. A site-and-surroundings chapter that treats ecological receptors as fixed and localised risks fundamentally understating the sensitivity of the receiving environment and the extent to which effects may arise through fragmentation, severance, displacement, disturbance or loss of ecological coherence.

This point is especially important in a landscape where protected species are known or strongly likely to depend on the continuity of the countryside rather than on isolated habitat islands. Woodland blocks are not ecologically self-contained. Their value depends in part on the condition and accessibility of the surrounding land, including dark corridors, foraging areas, flight lines, edge habitat and the wider permeability of the agricultural matrix. Likewise, agricultural fields cannot be treated as ecologically negligible merely because they are farmed. In this area, farmland itself forms part of the habitat resource and movement network for protected and priority species.

The same is true of land managed under stewardship or other ecological enhancement regimes. Such land is not surplus space awaiting alternative use. It is part of an existing ecological system that has been deliberately managed to support species and habitat function over time. Its importance lies not only in species presence at a given moment, but in its contribution to the wider structure, resilience and continuity of the landscape. Any lawful description of site and surroundings must therefore identify existing ecological management and habitat functionality as baseline characteristics of the place.

The Applicant's approach is further deficient because it risks separating designated sites, protected woodlands and notable habitats from the wider countryside that sustains them. In reality, the sensitivity of woodland, including ancient and designated woodland, often depends not only on the condition of the woodland itself but on the integrity of surrounding land uses,

hydrology, lighting conditions, disturbance levels and habitat connectivity. A chapter on site and surroundings that does not explain those dependencies materially understates ecological sensitivity.

Nor can ecology lawfully be confined to a narrow inventory of habitats. The relevant baseline must include functional habitat connectivity, species use of farmed land, the role of hedgerows and margins as connective infrastructure, the significance of dark and quiet rural conditions, and the interaction between ecological function and other environmental characteristics such as hydrology, soil condition and agricultural management. In a landscape of this type, ecology is inseparable from the wider rural system.

That is particularly material for a Scheme of this scale and distribution. The environmental consequences do not arise only from direct habitat removal. They may also arise from the cumulative insertion of fencing, substations, battery storage, lighting, access routes, cable works, operational activity and long-term landscape change across multiple locations. Such infrastructure may alter movement patterns, reduce permeability, degrade dark corridors, fragment foraging land, intensify edge effects and weaken the coherence of habitat networks across the wider countryside.

The proper baseline must therefore recognise that the site and surroundings form an ecologically connected landscape in which woodland networks, agricultural land, stewardship land, hedgerows, water features and species movement corridors are interdependent. The sensitivity of the receiving environment lies not only in designated sites or isolated receptors, but in the functional integrity of the wider system.

Accordingly, BEPS objects to any account of site and surroundings that does not expressly describe the affected area as a connected ecological landscape, including the importance of woodland networks, functional habitat connectivity, species use of the wider countryside and the ecological role of managed farmland and margins. Unless that baseline is properly stated, the subsequent assessment of ecological effects, protected species impacts, mitigation, habitat compensation and cumulative effects will be materially weakened.

3.10 Public Rights of Way, Rural Amenity and the Experience of the Countryside

The Applicant's treatment of site and surroundings is further deficient because it does not adequately describe the affected area as a lived and experienced countryside used not only for farming and habitation, but for movement, recreation, quiet enjoyment and ordinary day-to-day contact with the rural environment. In this landscape, public rights of way, lanes, open views, tranquillity and the experience of passing through a coherent agricultural countryside form part of the environmental baseline and must be treated as such.

The Scheme is proposed within a rural area crossed and bordered by public rights of way, minor roads, lanes and other routes by which residents and visitors experience the countryside. These are not merely lines on a map or transport links of limited relevance. They are part of the historic

and functional structure of the landscape and part of the means by which its openness, continuity, quietness and rural character are encountered and understood.

The significance of public rights of way in this context is not confined to whether a route remains technically open. The relevant question is how the character, amenity and experience of those routes would change if the surrounding countryside were transformed by extensive solar infrastructure, substations, battery storage, security fencing, lighting, access tracks, compounds, cabling and associated activity. A route may remain legally available while being materially altered in character, attractiveness, perceived safety and amenity value.

That point is especially important in a dispersed rural landscape where the experience of the countryside depends on continuity between paths, lanes, fields, hedgerows, settlements and views. Rights of way do not operate in isolation from their surroundings. Their value lies in movement through an open and legible landscape, in the ability to experience historic settlement form and agricultural setting, and in the sense of relative tranquillity and escape from industrial development. A site-and-surroundings chapter that records rights of way merely as physical receptors or route constraints fails to capture their true significance.

Rural amenity in this area likewise cannot lawfully be reduced to visual impact in a narrow sense. It includes openness, tranquillity, dark skies, the absence of industrial activity, the relationship between villages and surrounding fields, the character of minor roads and lanes, and the cumulative experience of a countryside that remains recognisably agricultural rather than infrastructural. Those qualities are part of the ordinary enjoyment of the area by residents, walkers, riders, road users and others, and they contribute directly to the environmental sensitivity of the site and surroundings.

The Applicant's approach is therefore deficient insofar as it fails to describe the countryside as an inhabited and experienced place. The affected environment is not simply a technical platform for development. It is used and understood by people through daily movement, recreation, access to neighbouring settlements, appreciation of views, and long familiarity with a settled rural landscape. A lawful baseline must identify that experiential dimension expressly.

This is particularly material for a Scheme of this scale and distribution. The cumulative insertion of industrial elements across multiple parcels may alter the experience of the countryside well beyond the immediate footprint of infrastructure. Fencing, inverter stations, substations, battery storage, access movements, surveillance equipment, engineered tracks and the narrowing of routes into visually and perceptually enclosed corridors may collectively change the character of how the landscape is used and perceived. Such effects are real environmental effects and must be grounded in an accurate description of site and surroundings.

The proper baseline must therefore recognise that public rights of way and rural amenity are integral components of the receiving environment. The countryside here is not merely seen; it is traversed, inhabited and experienced. Its value lies partly in the continuity of that experience across fields, lanes, settlements and views. Any account that ignores or underplays that point materially understates the sensitivity of the landscape.

Accordingly, BEPS objects to any account of site and surroundings that does not expressly describe the affected area as a countryside experienced through public rights of way, rural routes, tranquillity, openness and everyday amenity. Unless that baseline is properly stated, the subsequent assessment of landscape, visual impact, amenity, accessibility, human health and cumulative effects will be materially weakened.

3.11 Cumulative Infrastructure Pressure and the Transformation of Rural Character

The Applicant's treatment of site and surroundings is also deficient because it does not describe the affected area in its true cumulative context. The Scheme is not proposed in a static or unpressured landscape. It is proposed within a part of South Norfolk already subject to substantial and increasing pressure from energy infrastructure, grid reinforcement, associated works and wider development change. That cumulative context is not a separate add-on to the baseline. It forms part of the site and surroundings themselves.

A lawful description of site and surroundings must therefore identify not only the present character of the countryside, but the extent to which that character is already being altered, or is at material risk of alteration, by overlapping infrastructure pressures. In this case, the relevant receiving environment is not simply an agricultural landscape in the abstract, but an agricultural landscape facing progressive industrialisation through the concentration of solar generation, substations, battery storage, cable corridors, overhead line works, construction traffic and related energy development.

That issue is particularly acute because parts of the Scheme, and in particular the principal grid connection area, function as a cumulative nexus rather than as isolated development locations. The significance of those areas cannot be understood by considering each component individually. The combined presence of large-scale substations, battery storage, cable connections, overhead line interface works and associated access and operational infrastructure creates a cumulative form of transformation that is qualitatively different from the effect of any single element viewed in isolation.

The same is true at landscape scale. The effect of the Scheme is not limited to the direct presence of infrastructure within particular parcels. It arises also from the wider shift in character produced when multiple parts of a settled rural landscape are progressively reconfigured around energy generation and transmission uses. That process changes how the countryside functions, how it is perceived, how settlements relate to their surroundings, and how the area is experienced by residents, landowners and users of the public realm.

A site-and-surroundings chapter is therefore inadequate if it presents the affected area as though it were a largely unchanging baseline into which one proposal is simply inserted. The baseline must include the cumulative burden already present or reasonably foreseeable: energy infrastructure concentration, grid-related development, associated land-take, pressure on roads and lanes, increased industrialisation of views, and the progressive erosion of the distinction between working countryside and utility corridor.

This is not merely a matter of visual accumulation. Cumulative infrastructure pressure affects multiple dimensions of the receiving environment at once. It alters landscape character, heritage setting, ecological coherence, agricultural continuity, hydrological risk, traffic conditions, amenity, perceptions of tranquillity and the overall integrity of the rural system. Where those pressures converge within one area, the sensitivity of the receiving environment is heightened rather than diminished.

The Applicant's approach is further deficient if it treats cumulative effects as a later-stage technical exercise detached from the initial description of site and surroundings. That is the wrong way round. In a landscape already under material pressure, cumulative context is part of the baseline from the outset. If it is omitted or downplayed at the descriptive stage, all later assessments risk understating the true magnitude of change produced by the Scheme.

In BEPS's view, the proper baseline must recognise that this part of South Norfolk is not simply rural in character, but rural under cumulative pressure. The environmental question is therefore not whether one further scheme can be visually or technically fitted into available land parcels. It is whether the cumulative concentration of energy and associated infrastructure is fundamentally transforming the character, function and resilience of the countryside as a whole.

That question is particularly important in a landscape whose value lies in continuity: continuity of agricultural use, settlement pattern, heritage setting, ecological function, hydrological integrity, quiet enjoyment and the ordinary relationship between villages and their surrounding land. Cumulative infrastructure pressure threatens that continuity even where individual elements are dispersed. The relevant transformation is systemic, not merely local.

Accordingly, BEPS objects to any account of site and surroundings that does not expressly describe the affected area in its full cumulative context, including existing and foreseeable infrastructure pressure and the resulting transformation of rural character. Unless that baseline is properly stated, the subsequent assessment of cumulative effects, landscape character, heritage setting, ecology, hydrology, amenity and overall environmental significance will be materially weakened.

3.12 Site-by-Site Fragmentation and the False Neutrality of Parcel Descriptions

The Applicant's site-by-site description of the Scheme is itself objectionable in method. Chapter 3 states that the Site is described 'in its entirety' and also by reference to individual Sites 1 to 10, with separate treatment of the BESS Site, the National Grid Substation Site and the Cable Route Corridor.

That structure creates a false impression of neutrality and containment. By presenting each parcel as an individual 'site' with its own brief description, distances and nearby receptors, the chapter tends to normalise each location as an ordinary piece of farmland capable of accommodating infrastructure subject only to localised effects. In reality, the parcels do not

function as separate environmental units. They form part of one dispersed but integrated industrial scheme operating across a single rural landscape.

The legal and assessment problem is that parcel descriptions of this kind invite a reductionist reading of the baseline. They encourage the decision-maker to ask whether each field, taken in isolation, appears sufficiently distant from particular receptors or sufficiently open to contain development. That is the wrong question. The correct question is how each parcel functions within the wider environmental, agricultural, hydrological, ecological, heritage and settlement system, and how the Scheme's multiple parcels operate cumulatively across that system.

The result is a form of false neutrality. Agricultural fields are described as though they were environmentally spare units, when in fact each parcel may carry site-specific constraints and also contribute to wider landscape integrity, ecological connectivity, agricultural productivity, hydrological function, heritage setting, settlement separation or cumulative industrialisation. A description that strips away those wider functions is not neutral; it is selective.

BEPS therefore objects to the parcelised structure of the chapter insofar as it obscures the true nature of the receiving environment and suppresses the fact that parcel-specific constraints cannot be understood apart from the landscape-scale system of which they form part. This objection is without prejudice to more detailed parcel-by-parcel objections to be provided separately.

The proper method is to treat the individual parcel descriptions as subordinate to, not a substitute for, an integrated account of the whole landscape. Unless that is done, the chapter risks understating both parcel-specific harm and scheme-wide cumulative transformation.

3.13 Site 1, the Grid Hub and the Cumulative Industrial Nexus

The Applicant's treatment of Site 1 is materially inadequate because it does not recognise that this area is not simply one more solar parcel. Chapter 3 identifies Site 1 as including sub-Sites 1A and 1B, describes it as agricultural fields, and notes that it lies to the south-east of Great Moulton, north of the National Grid Substation Site and BESS Site, with nearby residential receptors including individual dwellings within short distances.

That description gravely understates the significance of Site 1. In reality, Site 1 forms part of the Scheme's principal grid and energy hub. It must be understood together with the adjacent BESS Site, the National Grid Substation Site, associated grid connection works, access requirements and the wider concentration of major electrical infrastructure in the Great Moulton area. Considered properly, this is not an ordinary field parcel but a cumulative industrial nexus.

The environmental importance of Site 1 lies precisely in the interaction of multiple constraints in one location: proximity to Great Moulton and nearby dwellings; the concentration of large-scale electrical infrastructure; likely major accident and contamination pathways; groundwater and private water supply sensitivity; hydrological connectivity; agricultural land loss; aviation and safeguarding issues; and cumulative transformation of rural character. A site description

that treats the land merely as agricultural fields with nearby receptors fails to describe the true receiving environment.

Site 1 must therefore be assessed not in isolation but as part of an integrated hub of substations, storage, connection infrastructure and associated disturbance. The issue is not simply whether sub-Site 1A or 1B can physically contain development. It is whether the concentration of this infrastructure in one location fundamentally alters the character, risk profile and environmental functioning of the surrounding countryside and nearby settlement edge.

BEPS objects to any account of Site 1 that does not recognise it as a location of exceptional cumulative sensitivity and consequence. The baseline for this area must include the combined presence or proposed presence of the National Grid Substation Option 2 Site, the BESS Site, the separate National Grid Substation Site, grid connection infrastructure, nearby homes, private receptors and the wider hydrological and ecological setting.

The Examination has since confirmed that the final infrastructure position at this location remains materially unsettled. The ExA has required the Applicant to explain the National Grid substation's capacity to accommodate other projects, the certainty and timing of its delivery as East Pye's point of connection and how that timing would be secured, together with any cumulative or downstream consequences of future third-party use. The Applicant was also required to provide further illustrative material for the National Grid substation and overhead-line works and to clarify the parameters applying to project and National Grid substations.

ISH1 also materially widened the aviation issue at Site 1. The Examination is no longer confined to glint and glare: emergency landing and EFATO considerations, glider launch failure, obstacles, turbulence and the interaction of substations, pylons and BESS with the operational airfield environment are now expressly live issues. The receiving environment around Site 1 must therefore include the functioning aviation environment as well as the physical fields and settlements on the ground.

Those developments reinforce the description of Site 1 as a constraint cluster rather than an ordinary agricultural parcel. Its baseline includes major electrical infrastructure, unresolved future network use, aviation operations, groundwater and private-water receptors, nearby homes, agricultural land, landscape and heritage sensitivity and strategic transport and rail infrastructure. Those relationships must be understood together before the environmental capacity of the location can be assessed.

Unless Site 1 is described as a cumulative industrial nexus rather than a simple parcel of agricultural land, the subsequent assessment of landscape, amenity, human health, major accident risk, hydrology, agricultural land, ecology and cumulative effects will be materially weakened.

3.14 BESS Site, National Grid Substation Site and Grid Connection Infrastructure

Chapter 3 separately identifies a BESS Site and a National Grid Substation Site, including grid connection infrastructure. That separation in form should not be permitted to obscure the

reality that these are among the most industrial and consequential elements of the entire Scheme.

The BESS Site, National Grid Substation Site and related connection works are not ancillary in any ordinary sense. They are central components of the Scheme's industrial operation. Their environmental significance is qualitatively different from that of solar arrays because they introduce substantial built form, electrical plant, operational infrastructure, noise, lighting, security measures, engineering compounds, access demands and elevated major accident and contamination risks.

A lawful description of site and surroundings must therefore treat these elements as major industrial interventions in a rural setting, not merely as technical features sitting alongside the solar fields. Their effects are liable to extend beyond their footprints through changes to rural character, visual composition, amenity, perceived safety, hazard profile, hydrological risk and cumulative infrastructure concentration.

The same applies to grid connection infrastructure. Cable sealing end compounds, overhead line interface works, replacement or repositioned pylons, access arrangements and related engineering should not be presented as peripheral or neutral connecting features. They are part of the means by which industrialisation is extended across the countryside and may have significant interactions with heritage setting, hydrology, agricultural operations, ecology, aviation, public rights of way and rural amenity.

BEPS therefore objects to any treatment of the BESS Site, National Grid Substation Site and grid connection infrastructure that presents them as isolated technical components rather than as core industrial elements whose siting, concentration and interaction with the surrounding environment are central to the adequacy of the baseline.

The proper baseline must identify these locations as major infrastructure nodes within a sensitive rural landscape. Unless that is done, the chapter materially understates the industrial character of the Scheme and weakens subsequent assessment of major accident risk, human health, hydrology, landscape, heritage, amenity and cumulative impact.

3.15 Cable Route Corridor, Uncertainty and Concealed Effects

Chapter 3 states that the Sites are connected by a Cable Route Corridor within which the cable route would be located, and the wider PEIR makes clear that the corridor is being presented at this stage as a broad area expected to be refined later.

BEPS objects to that approach because it imports substantial uncertainty into the description of site and surroundings while at the same time normalising the corridor as though it were a settled feature of limited environmental consequence. It is neither. A wide and unresolved corridor can conceal significant uncertainty as to route alignment, construction impacts, crossing points, engineering requirements and receptor interaction.

The Cable Route Corridor is not merely a line between sites. It is a zone of potential disturbance extending across farmland, roads, verges, hedgerows, drainage systems, watercourses, habitat

networks, settlements, utilities and other sensitive receptors. Its environmental significance lies not only in the final route chosen, but in the breadth of the corridor itself and the fact that the actual route remains materially unsettled while consultation and baseline description are being undertaken.

That uncertainty is especially material in this landscape because cable works may interact with heavy clay soils, field drainage, ditches, culverts, groundwater pathways, private water supplies, agricultural management, fibre infrastructure, road margins, rights of way and ecological connectivity. These are not peripheral matters capable of being left to refinement without consequence. They go directly to the adequacy of the baseline.

A site-and-surroundings chapter is therefore deficient if it identifies the CRC only in broad spatial terms without describing the range of sensitive features and pathway risks potentially affected across its length. The unresolved width of the corridor increases, rather than reduces, the need for a careful and candid account of the surrounding environment.

The baseline mapping also now requires correction for material physical change which has occurred in the landscape. In particular, parts of the application mapping do not show the completed Long Stratton Bypass and its associated mitigation landscape. BEPS has identified that Cable Route Corridor CRC4 intersects newly established bypass biodiversity mitigation, including planted woodland and wildlife ponds, land which is consequently not represented accurately on older base mapping and has not been characterised as part of the Applicant's original ecological baseline. A cable corridor cannot be assessed reliably against a pre-development map where the receiving environment has since acquired new habitat and drainage features which the authorised works may affect.

BEPS accordingly objects to any treatment of the CRC that conceals uncertainty behind a schematic corridor description. Unless and until the corridor's interaction with hydrology, soils, ecology, utilities, access routes, settlements and agricultural operations is properly described, the baseline remains materially incomplete.

3.16 Settlement Proximity, Residential Receptors and Village-Edge Harm

The Applicant's site descriptions repeatedly identify nearby villages and dwellings by distance. Site 1, for example, is described by reference to Great Moulton and to individual residential dwellings lying relatively close to the sub-sites.

BEPS objects to that treatment insofar as it reduces residential and settlement receptors to proximity markers rather than recognising village-edge and dwelling-edge relationships as part of the environmental baseline itself. The issue is not simply how many metres separate infrastructure from the nearest house. It is how a historically settled rural landscape functions where villages, isolated dwellings, lanes, fields and surrounding open countryside are closely interrelated.

In South Norfolk, settlement character depends heavily on the relationship between built edges and surrounding agricultural land. The countryside around villages is not empty buffer space. It contributes to openness, visual relief, tranquillity, setting, access to the countryside and the

ordinary experience of living in a rural settlement. Where industrial-scale energy infrastructure approaches settlement edges, the resulting harm may arise through cumulative alteration of character and amenity, not merely through direct physical encroachment.

The same applies to isolated rural dwellings and farmsteads. Their environmental sensitivity is not captured by simple stand-off distances. It includes their dependence on dark skies, quiet surroundings, open views, workable access, agricultural context and the absence of nearby industrial plant, fencing, surveillance equipment, substations, battery compounds and related activity.

A lawful description of site and surroundings must therefore identify not only the location of residential receptors but the character of the settlement edge and the role of surrounding land in sustaining residential amenity and rural identity. A chapter that merely lists villages and closest dwellings by distance materially understates the sensitivity of the receiving environment.

BEPS accordingly objects to any account of settlement proximity that treats villages and dwellings as isolated receptors detached from the wider countryside that gives them meaning and amenity value. The baseline must reflect village-edge harm, settlement encroachment and the cumulative erosion of rural residential character.

3.17 Surrounding Infrastructure, Airfields, Rail and Baseline Change

The Applicant's treatment of site and surroundings is also deficient because it does not sufficiently identify the wider infrastructure relationships that shape the sensitivity of the affected area. In this case, the surrounding environment includes not only farmland and settlements, but active airfields, transport corridors, strategic infrastructure interfaces and an evolving baseline altered by recent and foreseeable development change.

Those surrounding relationships are not merely later technical topics. They are characteristics of the receiving environment which bear upon the suitability and sensitivity of the affected land. The aviation context is now particularly clear following ISH1 and ExQ1: the ExA has required a standalone aviation-safety document and an explanation of the aviation effects considered beyond glint and glare. Tibenham therefore needs to be described as an operational aviation receptor with emergency-landing, glider-launch and obstacle relationships to Site 1, rather than merely as an airfield from which panels may be visible.

A site-and-surroundings chapter is therefore inadequate if it presents the land as though it existed independently of those surrounding infrastructure relationships. The true baseline includes the operational and environmental constraints arising from nearby airfields, rail lines, roads and connection infrastructure, together with the way those elements already shape the functioning and sensitivity of the countryside.

The baseline must also reflect material change in the surrounding environment. In this case, recent and foreseeable changes to traffic patterns, settlement growth, infrastructure concentration and related development pressure are part of the real receiving environment

against which the Scheme falls to be assessed. A static account of site and surroundings risks becoming misleading where the surrounding baseline is itself changing.

That point is particularly important because baseline change may intensify existing pressures rather than relieve them. Altered road patterns, nearby housing growth, increased grid concentration and other infrastructure changes may interact with the Scheme to produce a more constrained and more cumulative environment than a simple site description would suggest.

BEPS accordingly objects to any treatment of site and surroundings that fails to identify surrounding infrastructure constraints, aviation and rail relationships, and material baseline change as integral components of the receiving environment. Unless those matters are built into the baseline at the outset, later assessment of transport, aviation, amenity, cumulative effects and overall deliverability will be materially weakened.

3.18 Baseline Deficiency

For the reasons set out above, BEPS objects to the Applicant's treatment of site and surroundings as materially deficient in method and substance. The chapter does not describe the receiving environment as it truly exists: a coherent, historically settled, agriculturally productive, hydrologically connected, ecologically functioning and increasingly pressured South Norfolk rural landscape.

Instead, the Applicant's approach fragments that landscape into parcels, corridors and infrastructure components, understates the interrelationship of receptors and constraints, and fails to identify the full cumulative context in which the Scheme would be introduced. In doing so, it risks presenting the land as more divisible, more containable and less sensitive than it is in reality.

That is not a minor descriptive flaw. It goes to the adequacy of the environmental baseline itself. A misdescribed baseline is liable to infect the subsequent assessment of landscape and visual effects, heritage setting, ecology, hydrology, agricultural land, amenity, human health, major accident risk, cumulative effects and overall environmental significance.

BEPS's position is therefore that the site and surroundings must be reassessed and described as a single interconnected environmental and cultural system, including the full significance of the working countryside, the prevalence of BMV land, heavy clay soil vulnerability, drainage and groundwater connectivity, private water supplies, historic settlement pattern, heritage context, functional habitat networks, public rights of way, residential and village-edge sensitivity, cumulative infrastructure pressure, and the exceptional consequence of the Site 1 grid hub area.

Unless and until that is done, the Applicant's account of site and surroundings cannot be treated as a reliable foundation for the wider EIA, and all subsequent topic assessments that depend on that baseline must be approached with corresponding caution.

3.19 Description of the Site and Surroundings / The Receiving Environment as it Truly Exists

The authorised Scheme now extends across Order Limits of approximately 1,212.3 hectares and comprises ten dispersed principal Sites and Sub-Sites, the BESS, project substations, the proposed National Grid Substation and grid-connection works, extensive cable corridors, access and highway works, construction areas and mitigation land. The relevant baseline is therefore the land actually contained within or functionally affected by the submitted DCO, not the materially wider and differently configured pre-application search area from which earlier site descriptions were derived.

This is not a simple or generic development location. It is a coherent rural environment whose significance lies in the interrelationship of its parts. The receiving environment is a living agricultural landscape of villages, hamlets, farmsteads, parish churches, narrow lanes, rights of way, hedgerows, tree belts, drainage features and long-worked fields. It is experienced not as separate numbered sites but as one connected countryside in which agricultural use, historic settlement pattern, ecological function, hydrological pathways and everyday rural amenity overlap spatially and functionally. Fields are not empty development platforms. They are part of the setting of villages and listed buildings, part of the working agricultural economy, part of habitat networks, part of drainage systems and part of the ordinary experience of moving through and living in the countryside.

The surrounding landscape is strongly defined by its agricultural character. It is an actively farmed countryside rather than degraded or transitional land. On EPS's analysis, approximately 83% of the solar parcels are on Best and Most Versatile agricultural land. That is a defining characteristic of the receiving environment. It means the Scheme is proposed predominantly on productive farmland of high agricultural value, not on poorer-quality or previously developed land. In this area, that agricultural value is inseparable from landscape character: the open, cultivated fields contribute not only to food production but also to rural identity, to the setting of settlements and heritage assets, and to the legibility of the countryside as a working agricultural system.

The physical condition of that farmland is equally important. This is a heavy clay landscape. The soils are therefore likely to be vulnerable to compaction, smearing, rutting, impeded drainage and long-term structural damage from repeated heavy construction activity, trenching, access works, substation construction and associated engineering. Those soil conditions are not merely technical matters for a later topic chapter. They are part of the site itself. They shape how the land is farmed, how water moves across it, how resilient it is to disturbance, and how far any claim of reversibility can realistically be sustained.

The historic environment is embedded throughout this countryside. Its significance does not depend only upon isolated designated assets. It derives substantially from the wider settlement pattern: dispersed villages and farmsteads, parish churches experienced across open farmland, historic routeways, mature boundaries and the continuing legibility of an agrarian landscape. BEPS's final independent HIA now identifies less-than-substantial harm from the

principal built development to 36 designated heritage assets and adverse effects upon 41 designated heritage assets overall once associated highway and abnormal-load works are included, including two Grade I and three Grade II* listed buildings. The importance of that finding is not simply the number of assets affected. It demonstrates how frequently open agricultural setting, historic approaches, tranquillity, group relationships and long-established landscape structure contribute to significance across the Order Limits. The true receiving environment is therefore not “agricultural fields with nearby heritage receptors”, but a heritage-rich rural landscape in which the countryside itself repeatedly contributes to significance.

The water environment is equally integral to the character and functioning of the site and surroundings. This is not hydrologically self-contained land. It is crossed and connected by field drains, ditches, ordinary watercourses, culverts and groundwater pathways. The wider landscape includes aquifer-sensitive areas, private abstractions and downstream receptors – the river Waveney and Tas chalk streams – whose condition depends on the continued integrity of these systems. In a rural landscape such as this, private water supplies are part of the ordinary infrastructure of life and farming, not exceptional anomalies. The receiving environment must therefore be understood as a connected hydrological system in which disturbance in one location may travel via drainage and groundwater pathways to affect homes, farms, ecology and water quality elsewhere.

That point is particularly important because the Scheme is not limited to solar arrays. It includes battery storage, major substations, cable trenching, joint bays, fibre chambers, access works and grid connection infrastructure. The wider EIA confirms that the cable route will cross roads and tracks, rights of way, underground utilities and chalk-stream connected watercourses; that open-cut trenching will primarily be used; that trenchless crossings such as HDD may be required; that joint bays, fibre chambers, access land, temporary compounds and laydown areas will be required within the corridor; and that local hedgerow removal may be needed for access and visibility splays. This confirms that the receiving environment is not simply the solar fields themselves, but also a web of roads, verges, drainage features, water crossings, field boundaries, utilities and access points distributed through the countryside.

Ecologically, the site and surroundings form a functioning landscape rather than a set of isolated habitat fragments. Ancient woodland blocks, hedgerows, tree belts, field margins, agricultural land and wet features together provide habitat structure, movement corridors, foraging areas and ecological continuity. In this part of South Norfolk, ecological value does not reside only within designated sites. It also arises from the permeability and integrity of the wider countryside. Farmed land itself is part of this ecological matrix, especially where it is under stewardship or provides feeding, movement or breeding function for protected and priority species. Woodland is not ecologically self-contained; its significance depends in part on the surrounding land remaining connected, dark, quiet and hydrologically stable. The true receiving environment is therefore a connected ecological landscape, not simply a set of fields near designated sites.

The countryside is also an inhabited and experienced place. It is crossed and bordered by public rights of way, restricted byways, footpaths, minor roads and lanes by which residents and visitors move through and understand the landscape. These routes are not incidental

constraints. They are part of the historic grain of the countryside and part of the way openness, tranquillity and rural continuity are experienced. The value of such routes lies not merely in technical access remaining available, but in the quality of the surroundings through which they pass: open agricultural land, relative quiet, long views, separation from industrial development and continuity between villages and countryside.

The relationship between settlements and surrounding land is likewise central. Villages and scattered rural dwellings and farmsteads across the area, do not sit apart from the fields around them. Their amenity, identity and character depend heavily on their immediate agricultural setting, on dark skies, on open views, on manageable access and on the absence of nearby industrial-scale infrastructure. The true receiving environment therefore includes village-edge and dwelling-edge sensitivity, not merely notional distance measurements.

The area must also be understood in its cumulative context. This is not a static rural landscape into which a single project is inserted. It is a countryside already under growing pressure from energy infrastructure, grid reinforcement, associated development and changing transport and settlement patterns. That cumulative pressure is especially acute around Great Moulton, where Site 1, the BESS Site, the National Grid Substation Site and related grid connection works form a single zone of exceptional consequence. The true receiving environment around Site 1 is therefore not an ordinary group of fields. It is a prospective grid and energy hub within a sensitive rural setting, close to homes, rights of way, agricultural land and heritage receptors, and likely to be one of the principal locations at which cumulative industrialisation would be experienced.

Taken together, the site and surroundings are therefore best understood as one coherent South Norfolk rural system: historically settled, agriculturally productive, heavily reliant on high-quality farmland, physically shaped by heavy clay soils and field drainage, hydrologically connected, ecologically functional, crossed by public routes, closely related to village edges and heritage assets, and increasingly vulnerable to cumulative industrial transformation. That is the receiving environment as it truly exists. It is not a collection of neutral development parcels linked by a technical corridor. It is a living countryside whose environmental value arises from continuity, interdependence and long-settled rural character.

3.X.4 BEPS will assess the Applicant's final treatment of site and surroundings against three core requirements. First, it must describe the affected landscape as an integrated environmental and cultural whole, rather than reducing it to a series of separate development parcels, corridors and infrastructure components. Second, it must identify the principal constraints, sensitivities and interrelationships that define this part of South Norfolk, including the interaction between agricultural land quality, heavy clay soils, hydrology, private water supplies, heritage setting, ecological function, settlement character, rights of way and cumulative infrastructure pressure. Third, it must provide a baseline that is sufficiently complete, specific and robust to enable the lawful identification and assessment of likely significant effects across the environmental topics. A chapter that fails those requirements is not merely incomplete in descriptive terms; it is liable to undermine the adequacy of the wider assessment that depends upon it.

3.X.5 BEPS's position is that the burden rests squarely on the Applicant to present an accurate, coherent and decision-useful account of the receiving environment. It is not for consultees, affected communities, local authorities or the decision-maker to piece together the true character, sensitivity and functioning of the site and surroundings from fragmented references dispersed across separate technical chapters, figures, appendices or later submissions. The chapter on site and surroundings must itself perform that function clearly and reliably. If it does not, the resulting Environmental Statement will proceed from a defective baseline, with corresponding consequences for the lawfulness and reliability of the subsequent assessment.

3.20 The Applicant's Baseline Is Contradicted by Its Own Statutory and Specialist Consultees

The inadequacy identified above is no longer merely BEPS's interpretation of Chapter 3. The Relevant Representations of Norfolk Wildlife Trust, Natural England and Historic England independently demonstrate that the Order Limits contain, adjoin or functionally interact with ecological, agricultural, hydrological and heritage features which Chapter 3 understates, fragments or fails to recognise as defining characteristics of the receiving environment.

Those representations carry particular weight. Natural England is the statutory nature conservation adviser and identifies unresolved issues concerning protected species, incomplete Agricultural Land Classification survey coverage, possible peat, permanent infrastructure on Best and Most Versatile agricultural land and the adequacy of future soil-management controls. It also confirms that the Order Limits are hydrologically linked to six Sites of Special Scientific Interest and two ancient woodlands.

Historic England is the Government's statutory adviser on the historic environment. Although it considers parts of the Applicant's assessment and mitigation approach appropriate, it confirms that the Scheme is likely to cause significant setting effects and policy harm to designated heritage assets, that residual harm is likely to remain, that archaeological evaluation is incomplete in parts of the Order Limits, and that cumulative effects with Tasway Energy Park and associated BESS development require further examination.

Norfolk Wildlife Trust brings detailed local ecological knowledge and has engaged directly with the Applicant and its ecological consultants throughout the pre-application process. Its representation identifies a landscape of ancient woodland, species-rich hedgerows, ecologically important road verges, rare flora, farmland birds and nationally important bat activity, and concludes that further information and design refinement are required before the Scheme can be regarded as ecologically acceptable.

BEPS does not suggest that all three bodies oppose every aspect of the Scheme. Natural England and Historic England take qualified positions and identify matters capable of resolution if evidence is supplied and mitigation is properly secured. The important point is that even those consultees identify unresolved questions of baseline

completeness, ecological and hydrological connectivity, archaeological uncertainty, mitigation efficacy and cumulative harm. Their evidence directly contradicts any suggestion that Chapter 3 provides a complete or environmentally neutral account of the Order Limits.

Subsequent examination developments reinforce that conclusion. ExQ1 asks Natural England specifically whether the Applicant has established an adequate bat baseline, including in relation to barbastelle and woodland adjoining the Order Limits; asks further questions concerning incomplete soils, drainage and ground-condition evidence; and requires a heritage schedule capable of reconciling the competing conclusions on affected assets. ISH1 has also generated specific actions concerning local botanical evidence, unresolved infrastructure layouts, transport routes and the environmental consequences of the final design. The adequacy of the receiving-environment baseline is therefore itself now an active examination issue rather than a matter which can be treated as settled.

3.21 The Scheme Is Located in a Landscape 'Dense with Nature', Not Generic Agricultural Land

Chapter 3 describes the landscape within and around the Sites as comprising 'predominantly agricultural fields and rural villages and hamlets', and later refers to fields bordered by hedgerows, trees and woodland blocks. That description is superficially accurate but environmentally misleading. It identifies physical land-cover categories while failing to explain how those features function together as a connected ecological system.

Norfolk Wildlife Trust provides a materially different and more environmentally informed description. It identifies pockets of ancient woodland, miles of species-rich hedgerows, semi-natural road verges, Roadside Nature Reserves, significant barbastelle maternity populations, rare farmland birds including corn bunting, turtle dove and yellowhammer, and rare threatened flora dispersed across the landscape. Its conclusion is direct: this is 'not a landscape of large flat fields, sparse with nature'; it is 'dense with nature – understated but infusing the landscape.'

Chapter 3's Terminology Conceals Ecological Function

Describing land as 'agricultural' does not establish that it is ecologically unimportant or of low sensitivity. In this landscape, agricultural fields form part of the functional habitat matrix supporting bats, farmland birds, protected species and wider ecological connectivity. Their value lies not only in the habitat present within individual fields, but in their relationship with hedgerows, woodland edges, watercourses, ditches, field margins and dark commuting routes.

Chapter 3 lists hedgerows, woodland blocks and nearby designated sites, but does not explain those functional relationships. It therefore encourages the reader to treat fields as development land, hedgerows as boundary features and woodlands as isolated constraints. That is not the ecological reality described by Norfolk Wildlife Trust. The

relevant receptor is the functioning landscape network, not the individual feature viewed in isolation.

This distinction is material. Bats commute and forage across multiple parcels. Farmland birds depend on extensive open and edge habitats. Rare botanical species survive along verges and margins. Woodland value depends partly on surrounding habitat, hydrology and darkness. A baseline that records the physical presence of these features but omits their functional interdependence materially understates the sensitivity of the Order Limits.

Ecological Value Is Dispersed Rather Than Confined to Designated Sites

Chapter 3 states that no international, European, national or local statutory nature conservation site lies within the Order Limits. That statement must not be allowed to imply that the land within the Order Limits is ecologically ordinary or unconstrained.

Norfolk Wildlife Trust's evidence demonstrates that ecological value is widely dispersed across the countryside. Rare flora, farmland birds and bat activity are not confined to protected sites. The Scheme's ecological sensitivity arises partly from the undesignated land connecting woodlands, hedgerows, watercourses, roosting locations and designated habitats.

The absence of a statutory designation within a particular solar parcel therefore does not mean that the parcel lacks ecological importance. Undesignated agricultural land may provide essential foraging habitat, movement routes, buffering, hydrological support or connectivity between higher-value features. Those functions may be impaired by fencing, lighting, trenching, access works, vegetation removal, construction disturbance and the cumulative occupation of multiple parcels.

Chapter 3's designation-led presentation consequently understates the true baseline. It records the location of protected sites but does not adequately describe the wider countryside on which the ecological integrity of those sites and species depends.

The Applicant Has Attempted to Reshape the Landscape to Fit the Scheme

Norfolk Wildlife Trust considers that the ecological character and landscape form of this part of South Norfolk are poorly suited to the proposed development. Its criticism is fundamental: the Scheme should have been reshaped to suit the landscape, whereas the current design attempts to reshape the landscape to fit the Scheme. It also describes the development as stretching across a 'huge swathe of land' and having a very significant impact footprint relative to its generating output.

Chapter 3's parcel-based approach facilitates that design error. By dividing the countryside into numbered sites, sub-sites and corridors, the Applicant presents ecological constraints as local matters to be buffered, crossed, restored or managed after the development envelope has already been selected.

The mitigation hierarchy requires the opposite approach. Once the receiving environment is correctly understood as ecologically dense, connected and constrained, the first response should be avoidance and fundamental redesign. The proper question is not how infrastructure can be inserted throughout the landscape and its effects subsequently managed, but why development remains proposed across the most sensitive and functionally important parts of that landscape at all.

Reliance on future buffers, habitat restoration, management plans and monitoring does not cure a defective siting strategy. It confirms that the Scheme has been designed across a landscape whose ecological character should have constrained the extent and location of the Order Limits from the outset.

3.22 The Order Limits Directly Contain and Adjoin Ecologically Sensitive Sites

Chapter 3 largely presents non-statutory ecological sites by reference to their distance from individual Sites and Sub-Sites. Norfolk Wildlife Trust's representation demonstrates that this approach is inadequate. It states that the Order Limits include parts of Lower Spring Wood County Wildlife Site and Fritton Grange Meadows County Wildlife Site, and include or adjoin several Roadside Nature Reserves, including Bussey's Loke, Market Lane and Parker's Lane.

These are not remote receptors capable of being dealt with through a simple proximity table. They are sites through which, beneath which, or immediately beside which authorised works may occur. Their ecological condition may be affected by the location of HDD compounds, access works, lighting, vehicle movements, construction activity, hydrological disturbance and the adequacy of protective buffers.

Chapter 3 Understates Direct Interaction with Non-Statutory Designated Sites

The distinction between a receptor lying 'within', 'adjacent to' or merely 'near' the Order Limits is environmentally decisive. A list of distances does not establish whether the authorised development, temporary working areas, HDD entry and exit compounds, access works, lighting, storage areas or construction traffic would enter a designated site, affect its buffer, alter its hydrology or impair the features for which it was selected.

Norfolk Wildlife Trust confirms that the precise locations of HDD entry and exit points will not be determined until detailed design. It therefore considers that the ecological effects on the affected County Wildlife Sites cannot yet be fully assessed and that the sufficiency of the proposed buffers has not been demonstrated. It specifically identifies risks from drilling compounds, vehicle movements, noise, lighting and hydrological effects, notwithstanding the proposed use of trenchless construction.

That uncertainty exposes a central defect in Chapter 3. The Order Limits are presented as a defined environmental envelope, but environmentally consequential works within that envelope remain unfixed. The chapter therefore gives the appearance of spatial

certainty while deferring the actual location and effects of works capable of harming sensitive habitats.

Norfolk Wildlife Trust seeks identification of HDD entry and exit points before the close of Examination, larger precautionary buffers, exclusion of compounds, lighting and storage from those buffers, and detailed hydrogeological assessment where HDD may affect fen habitat. Those requests demonstrate that the present description and assessment do not yet establish that the Order Limits can accommodate the works without unacceptable ecological effects.

Site 3 Is Not an Ordinary Solar Parcel

Chapter 3 describes Site 3 as approximately 57.8 hectares of land south of Lundy Green and notes only that it contains farm tracks and hedgerows delineating fields. That description materially understates the site's ecological context.

Norfolk Wildlife Trust states that it previously recommended deletion of Site 3 because of potential effects on a County Wildlife Site, ancient woodland and bats. Although it acknowledges that design changes have been made, it remains concerned about works in this area and continues to recommend that Site 3 should ideally be removed from the Scheme.

That is a landscape-level avoidance recommendation from the county's principal wildlife trust. It cannot be reconciled with a baseline that presents Site 3 principally as an agricultural parcel containing hedgerows and tracks.

The decisive planning fact is that Site 3 lies within an ecological context considered sufficiently constrained by woodland, County Wildlife Site and bat interests that avoidance through deletion remains the preferred response. That conclusion should have shaped the Order Limits before submission. It should not be treated as a matter to be managed later through local mitigation.

BEPS therefore submits that Site 3 is a clear example of the consequences of the Applicant's parcelised baseline. By describing the land physically rather than functionally, Chapter 3 conceals the very constraints that should have determined whether the parcel formed part of the Scheme at all.

The Scheme Boundary Has Been Drawn Around Unresolved Works

The precise locations of HDD entry and exit points, associated compounds and supporting infrastructure remain deferred to detailed design. Norfolk Wildlife Trust states that, without that information, the ecological effects on the affected County Wildlife Sites cannot be fully assessed and the adequacy of the proposed buffers cannot be determined.

That is a fundamental baseline defect. The Order Limits are presented as a defined environmental envelope, yet some of the works most capable of causing ecological and

hydrological harm remain unfixed within it. Their eventual locations will determine proximity to designated habitat, woodland, fen, hedgerows, watercourses and dark corridors, together with the effects of lighting, noise, access and vehicle movements.

The baseline therefore describes a fixed boundary around unfixed works. That does not demonstrate that the authorised development can be accommodated safely within the Order Limits. It merely transfers the decisive siting choices, and their environmental consequences, to the post-consent stage.

3.23 Roadside Verges Are Part of the Ecological Baseline, Not Expendable Highway Margins

Chapter 3 includes highway works within the authorised development but describes the affected roads principally as access infrastructure. It does not identify the connected roadside-verge network as an ecological receptor in its own right, notwithstanding the prevalence of Roadside Nature Reserves and species-rich verges across the Scheme area.

That omission is material. The construction strategy depends on rural roads, site accesses, passing places, visibility splays and routes for HGVs and abnormal loads. The environmental baseline must therefore include the habitats directly exposed to those works and movements.

The Baseline Omits Non-Designated Species-Rich Verges

Norfolk Wildlife Trust states that the application does not contain a comprehensive assessment of construction effects on roadside-verge habitats across the transport network. It identifies South Norfolk's verges as important for rare botany and explains that many rare plants persist there precisely because the verges have escaped agricultural improvement.

Those habitats are exposed to road widening, passing-place construction, visibility-splay clearance, HGV over-running, abnormal-load movements and repeated soil compaction. Even where direct removal is not proposed, construction traffic may degrade the vegetation and soil conditions on which rare species depend.

Chapter 3's treatment of these areas as highway margins therefore conceals their ecological significance. Before those routes can be relied upon, the Applicant must identify the affected verge habitats and demonstrate that important botanical assemblages will be avoided.

ISH1 has since resulted in a specific action requiring the Applicant to engage with the local botanical evidence concerning rare plant records and the effects of proposed road works. That action materially reinforces the point made here: highway land and roadside verges cannot be assumed to be low-value construction margins before their botanical interest has been properly established.

‘Temporary’ Highway Works May Cause Permanent Ecological Damage

The description of works as temporary says nothing about the permanence of their effects. Norfolk Wildlife Trust warns that temporary works may cause disproportionate ecological damage through vegetation clearance, disturbance, over-running and compaction.

Established verge flora cannot necessarily be recreated by reinstating the highway boundary after construction. Soil compaction, altered drainage and loss of mature vegetation may permanently change habitat condition.

The baseline cannot therefore classify such works by duration alone. Temporary possession or temporary engineering may cause irreversible ecological loss. Unless the affected verges are surveyed before consent and avoidance measures are secured, the significance of that risk remains unknown.

3.24 The Applicant Has Failed to Describe a Nationally Important Bat Landscape

Norfolk Wildlife Trust identifies bats as one of the most significant ecological issues raised by the application. The Applicant’s own ES records eleven bat species and concludes that the Order Limits and surrounding landscape support a ‘nationally important assemblage of foraging and commuting bats’. That assemblage includes barbastelle, identified by the Applicant as the rarest bat in the United Kingdom.

Chapter 3 does not convey the consequence of that evidence. It describes hedgerows, woodland blocks and watercourses as separate physical features, rather than as the connected landscape infrastructure on which the bat assemblage depends.

The Bat Receptor Is the Landscape, Not the Individual Hedge

The Applicant’s surveys show bat use across multiple development parcels. The relevant receptor is therefore not an individual hedge or woodland edge considered in isolation. It is the connected landscape-scale network of roosts, foraging areas, woodland edges, watercourses, tree lines, hedgerows and dark commuting routes.

Chapter 3’s division of the Order Limits into separate Sites, Sub-Sites and corridors is ecologically artificial. Bats do not follow the Applicant’s parcel boundaries. Severance, disturbance or lighting in one part of the network may reduce permeability and alter habitat use elsewhere.

A baseline which records retained habitat features but fails to describe their collective function cannot support a reliable assessment of effects on a nationally important assemblage.

Ten-Metre Hedgerow Gaps Cannot Be Assumed Harmless

The Applicant concludes that temporary hedgerow gaps of up to 10 metres would not significantly affect bat movement. Norfolk Wildlife Trust expressly questions whether that conclusion is sufficiently evidenced, particularly for barbastelle, and warns that relatively small breaks in linear features may alter commuting behaviour and landscape permeability.

This is a direct consequence of treating hedgerows as physical boundaries rather than functional ecological corridors. The relevant question is not merely how many metres of hedge would be removed. It is whether the break, together with lighting, noise, construction activity and surrounding land-use change, would continue to permit the established movement of bats.

The Applicant has not demonstrated that all proposed gaps are ecologically immaterial. An unsupported assumption of continued permeability cannot substitute for route-specific evidence.

Retention Is Not the Same as Maintenance of Function

The Applicant relies heavily on retaining existing hedgerows and habitat corridors. Retention on a plan does not establish continued ecological functionality.

Norfolk Wildlife Trust identifies risks from lighting, vehicle movements, construction disturbance, insufficient buffers and degradation of habitat quality. It seeks closer scrutiny of lighting controls, important commuting routes and the enforceability of mitigation commitments.

A hedge may remain physically present but cease to perform its existing ecological function if it is illuminated, severed, narrowed, repeatedly disturbed or enclosed by industrial development. The baseline must therefore identify functional corridors and the conditions necessary to maintain them, rather than treating physical retention as determinative.

New Planting Cannot Replace Established Functional Habitat

Norfolk Wildlife Trust also warns that habitat creation cannot automatically replace mature hedgerows and established commuting routes, which may take decades to achieve equivalent ecological function. It expresses particular concern that biodiversity-gain calculations do not fully account for temporal losses during habitat establishment.

The mitigation hierarchy requires the Applicant first to identify and avoid damage to existing function. It is neither rational nor precautionary to assume that quantified future planting can compensate immediately for the degradation of mature bat corridors supporting a nationally important assemblage.

Where equivalent function cannot be delivered at the time of loss, avoidance is required. Biodiversity units and future management commitments do not remove the intervening ecological deficit.

The Examination has subsequently put the adequacy of that baseline directly to Natural England. ExQ1 asks whether the Applicant has established an adequate bat baseline, expressly including barbastelle and woodland adjacent to the Order Limits. That question is significant because the issue is not merely whether bats have been recorded; the Applicant's own evidence already establishes a nationally important assemblage. The remaining question is whether the survey evidence is sufficient to identify the functional maternity-colony landscape, woodland relationships, commuting routes and foraging areas which need to be protected before the authorised layout is fixed.

3.25 Lowland Fen, Hydrological Dependency and Concealed Pathway Risk

The ecological baseline cannot be separated from hydrology. Norfolk Wildlife Trust identifies approximately 0.72 hectares of irreplaceable lowland fen within the study area, including habitat associated with Fritton Grange Meadows CWS and the Hempnall Beck corridor. It states that insufficient evidence has been provided to demonstrate that HDD beneath the fen would not affect groundwater conditions or the hydrological processes on which the habitat depends.

Natural England separately confirms that the Order Limits are hydrologically connected through watercourses or groundwater flow to nationally designated sites and ancient woodland. Chapter 3 lists watercourses, aquifers and flood zones, but does not disclose the ecological consequences of those connections.

The Order Limits Are Hydrologically Connected to Nationally Important Receptors

Natural England identifies hydrological links between the Order Limits and Fritton Common SSSI, Pulham Market Big Wood SSSI, Shotesham–Woodton Hornbeam Woods SSSI, Shotesham Common SSSI, Hedenham Wood SSSI and Tindall Wood Ditchingham SSSI. It also identifies links to Saxlingham Grove Ancient Woodland and Popes Wood and Doylys Grove Ancient Woodland.

These are high-sensitivity receptors. The surface-water and groundwater pathways connecting them to the Order Limits mean that disturbance or pollution need not occur within a protected-site boundary to cause harm.

Chapter 3's description of rivers, ordinary watercourses and aquifers therefore omits the decisive environmental fact: the Order Limits form part of a connected hydrological system capable of transmitting effects to a network of nationally designated and irreplaceable habitats.

The Applicant's Conclusions Depend on Mitigation Being Fully Secured

Natural England accepts that significant adverse effects on the identified SSSIs may be ruled out only on the basis that the mitigation in the outline CEMP is implemented and secured. It specifically requires controls over surface-water runoff, water quality and water quantity for the construction phase.

That is not a finding that the receiving environment is insensitive. It confirms the opposite: the receptors are highly sensitive and hydrologically connected, but effects may be controlled if the specified mitigation is effective, timely and legally enforceable.

Any failure to secure, maintain or implement those controls would undermine the basis of Natural England's qualified agreement. The Applicant cannot rely on that agreement while treating the underlying hydrological sensitivity as immaterial.

Lowland Fen Cannot Be Treated as an Isolated Mapped Habitat

Lowland fen is irreplaceable habitat dependent on groundwater level, water chemistry and the continued operation of hydrological processes extending beyond its mapped boundary. Passing a cable beneath the habitat does not necessarily avoid those processes.

HDD entry and exit compounds, drilling, dewatering, vibration, compaction, accidental frac-out and altered groundwater conditions may affect the system that sustains the fen even where no direct excavation occurs within the habitat itself. Norfolk Wildlife Trust therefore seeks additional hydrogeological evidence and monitoring commitments.

Until those pathways have been assessed at the actual crossing location, the Applicant has not demonstrated avoidance. It has merely substituted an assumed underground route for evidence that the hydrological function of the habitat will remain intact.

3.26 Protected-Species Uncertainty Remains Embedded Within the Order Limits

Natural England classifies protected species as an amber issue. The Outline Protected Species Mitigation Strategy indicates that licences may be required for water vole or otter, great crested newts, roosting bats and badger-sett closures. Natural England seeks confirmation whether licence applications have been made and strongly advises early action to prevent delay.

Those potential licensing requirements demonstrate that protected-species constraints are embedded across the Order Limits. They are not remote or speculative matters.

Chapter 3 Does Not Disclose the Extent of Potential Licensing Constraint

Chapter 3 describes fields, hedgerows, woodland and watercourses without explaining that works within those features may require statutory species licences. That omission prevents the reader from understanding the extent to which the Order Limits remain constrained by protected-species law and unresolved mitigation requirements.

The issue is particularly acute for a dispersed and phased project. Different works may affect different species, habitats and licence regimes at different times. A high-level reference to later ecological documentation does not provide a decision-useful account of those constraints within the Order Limits.

Licensing Uncertainty Is Also a Deliverability Issue

The absence of a licence at application stage does not automatically make the DCO unlawful. It does, however, require the Applicant to demonstrate with sufficient certainty that the necessary avoidance, mitigation and compensation are deliverable and that no obvious impediment exists to the grant of any required licence.

That demonstration has not yet been completed. Natural England continues to seek clarity regarding the need for licences affecting several species.

Until the licensing position is resolved, the Order Limits contain material ecological and legal uncertainty. The Examining Authority cannot simply assume that all affected works will later satisfy the relevant licensing tests.

Future Licensing Cannot Repair an Incomplete EIA Baseline

Protected-species licensing is not a substitute for environmental impact assessment. The ES must first identify the affected species, the habitat functions on which they depend, the likely effects of the authorised development and the avoidance or mitigation necessary to address them.

The Applicant cannot defer that assessment on the basis that detailed surveys or licence applications will follow consent. A future licence may regulate an identified offence; it cannot cure an ES that failed to establish the ecological baseline and assess the likely significant effects with sufficient certainty.

3.27 The Agricultural Baseline Remains Incomplete Across the Order Limits

Natural England identifies incomplete ALC coverage, possible peat, permanent infrastructure on BMV land and insufficient detail in the Soil Resource and Management Plan as amber issues.

Those are not confined to Chapter 15. They demonstrate that Chapter 3 does not provide a complete account of the land resource within the Order Limits, particularly across the Cable Route Corridor and temporary works areas.

The Cable Route Corridor Has Not Been Fully Surveyed for Agricultural Land Quality

Chapter 3 confirms that the Cable Route Corridor extends for approximately 24 kilometres and covers about 158.9 hectares. Natural England states that detailed ALC surveys should cover the whole Order Limits, including the cable corridors, but that the submitted information does not demonstrate that those surveys have been completed.

The Applicant therefore seeks powers over a substantial linear landholding without having established the agricultural quality and soil resources throughout it. That prevents informed route refinement and prevents the decision-maker from knowing the full extent of BMV land exposed to trenching, compounds, tracks and soil handling.

The Chapter 3 baseline is consequently incomplete across a significant part of the authorised development.

'Temporary' Cable Works May Permanently Degrade Land Quality

Natural England warns that underground cable installation, temporary access tracks and construction compounds may cause permanent soil damage, ALC degradation and long-term or permanent loss of BMV land if works are undertaken inappropriately.

That risk is heightened by the scale of the cable network and the breadth of the working corridor. Trenching, stockpiling, trafficking and reinstatement may alter soil structure, drainage and productive capacity long after the temporary works have ended.

The legal duration of possession does not determine the duration of the environmental effect. Temporary works may cause permanent agricultural degradation. The baseline and assessment must address that possibility directly.

Peat Has Not Been Adequately Resolved

Natural England seeks clarification regarding the possible presence of deep, permeable sandy and peaty soils affected by groundwater and advises that peat within the Order Limits should be avoided.

That uncertainty is material to soil conservation, hydrology, carbon storage, construction method and restoration. It cannot properly be deferred to later soil management.

Until the presence and extent of peat are conclusively established, the Applicant cannot demonstrate that the baseline is complete or that infrastructure and cable routes have avoided the most sensitive soils.

Permanent Infrastructure on BMV Land Has Not Been Avoided

Natural England records that approximately 6 hectares of BMV land would be permanently lost to infrastructure and advises that the siting of that infrastructure should be reconsidered to avoid BMV land. It also notes that BMV land is a high-

sensitivity receptor and that even relatively limited permanent loss may be significant, particularly cumulatively.

The statutory adviser's response is avoidance, not merely restoration or management. The Applicant has not demonstrated why the permanent grid infrastructure must occupy BMV land or why a less harmful configuration is unavailable.

A commitment to manage or restore other soils does not justify permanent development on high-quality agricultural land where avoidance has not been exhausted.

3.28 Ancient Woodland, Veteran Trees and the Inadequacy of Inconsistent Buffers

Natural England treats ancient woodland and ancient or veteran trees as a green issue only on the basis of specified mitigation. It requires the proposed 30-metre buffer to be recorded consistently in the LEMP, CEMP and DEMP and seeks strict controls including arboricultural survey, root-protection measures, no-dig methods, soil-compaction prevention and arboricultural oversight.

Norfolk Wildlife Trust separately seeks safeguards for ancient woodland, veteran trees, historic hedgerows and all temporary hedgerow removals.

Natural England's Acceptance Is Conditional

Natural England's green classification does not establish an absence of risk. It reflects reliance on a 30-metre buffer and a detailed suite of controls being secured and applied consistently through construction, operation and decommissioning.

Any inconsistency between the controlling documents would weaken that protection and undermine the basis of Natural England's position. The buffer cannot remain an informal commitment or appear in only one management plan.

The Order Limits therefore remain acceptable in this respect only if the required protection is legally secured for the full duration of the Scheme.

The Baseline Must Include Woodland Setting and Supporting Habitat

Ancient woodland cannot be described solely by reference to its mapped boundary. Its ecological condition may depend on adjoining soils, groundwater, surface-water movement, root zones, woodland-edge habitat, darkness and connectivity with the wider countryside.

Development may therefore affect woodland without entering it directly. Lighting, drainage alteration, soil compaction, pollution, severance and loss of surrounding habitat may degrade its condition and supporting function.

A baseline limited to mapped woodland polygons and stand-off distances fails to identify those dependencies. The surrounding functional habitat must form part of the receptor.

Hedgerow Replacement Is Not Functional Equivalence

The ES identifies partial removal of 32 hedgerows, removal of five trees and temporary hedgerow removal for cables and access. Norfolk Wildlife Trust seeks confirmation that no ancient or species-rich hedgerow will be removed and requires detailed restoration and monitoring for all temporary losses.

Replacement planting cannot immediately recreate the age, structure, species composition, soil relationships or ecological connectivity of an established historic hedgerow. Nor does reinstatement remove the intervening period of severance.

The Applicant must therefore avoid the most sensitive hedgerows rather than assuming that later planting will provide functional equivalence. Where loss would interrupt established ecological networks, replacement is not a sufficient answer.

3.29 Historic England Confirms That This Is a Heritage-Sensitive Rural Landscape

Historic England considers that the Applicant has provided an appropriate assessment of the location, type and significance of designated and non-designated heritage assets and broadly supports the siting approach for the Site 1 BESS, Project Substation and National Grid Substation. That qualified support must be acknowledged.

It does not, however, support the conclusion that the historic environment is unconstrained or that harm has been removed. Its Relevant Representation confirms significant setting effects, residual harm, incomplete archaeological evaluation and cumulative concern.

The Rural Landscape Is Defined by Churches, Listed Buildings, Conservation Areas and Medieval Settlement

Historic England describes the Scheme area as an extensive, predominantly agricultural part of South Norfolk containing important rural churches, listed buildings and small conservation areas focused on medieval settlement.

That description confirms that the cultural baseline is not a random distribution of isolated assets. It is an agricultural and settlement landscape in which churches, buildings, villages and conservation areas express a continuing rural and medieval pattern.

The open farmland between those assets is not neutral intervening space. It contributes to settlement form, rural approaches, visual relationships and the agricultural settings in which the assets are experienced and understood.

Significant Heritage Effects and Residual Harm Are Accepted

Historic England recognises that the Scheme will change the settings of designated heritage assets and that, in some cases, those changes will result in significant effects amounting to policy harm. It further confirms that residual effects are likely to remain after mitigation.

Chapter 3 does not prepare the reader for that conclusion. Its reliance on lists and distances understates the role of the wider countryside in the significance of the affected assets.

The statutory adviser's position confirms that the surrounding fields and views form part of the setting through which harm arises. Planting may reduce visibility, but it cannot necessarily preserve openness, historic relationships or the legibility of the rural landscape.

The Scale of Affected Designated Heritage Assets Is Substantial

Historic England identifies particular concerns regarding one Scheduled Monument, two Grade I listed buildings, two Grade II* listed buildings, 42 Grade II listed buildings and four Conservation Areas.

This does not mean that every asset will experience the same effect or level of harm. It does demonstrate that the Order Limits extend through an unusually dense and sensitive historic environment requiring both asset-specific and landscape-scale scrutiny.

The scale of that receptor population is inconsistent with any characterisation of the surrounding countryside as a collection of ordinary agricultural parcels.

Unknown Archaeology Remains Capable of Changing the Assessment

Historic England confirms that parts of the Order Limits have not been fully subject to archaeological evaluation and that previously unknown sites potentially equivalent in value to designated heritage assets may still be identified. It requires further evaluation, reassessment of effects and proportionate mitigation through the DCO.

The Applicant describes the Order Limits as though their historic-environment baseline were settled. Historic England confirms that it is not.

Until evaluation is complete, the presence, significance and susceptibility of archaeological remains remain unresolved across parts of the authorised area. Those findings may require avoidance or redesign, not merely excavation after consent.

The Cable Route Corridor Is a Particular Heritage Concern

Historic England expressly identifies the methodology and mitigation for the Cable Route Corridor as a likely area of concern on which it intends to comment further.

That concern is material because the Applicant seeks extensive compulsory powers across a lengthy corridor whose detailed alignment remains flexible. The archaeological and setting consequences of the final route have therefore not been fully resolved before the powers are granted.

The Applicant should not be permitted to treat archaeological mitigation as a substitute for route selection informed by a completed baseline. The corridor must first be refined to avoid harm wherever practicable.

The independent HIA identifies a materially wider pattern of harm

The independent HIA submitted by David Edelston (see Appendix G) materially develops the receiving-environment evidence It identifies less-than-substantial harm from the principal built development to 36 designated heritage assets and adverse effects upon 41 designated heritage assets overall once associated highway and abnormal-load works are included. Those include two Grade I and three Grade II* listed buildings.

The difference is methodological as well as numerical. The HIA identifies recurring heritage attributes which are difficult to capture through a parcel-and-distance description: openness and enclosure, topography, group value, historic and functional relationships, long-established agricultural use, tranquillity, remoteness, seasonal conditions and sequential experience while travelling through the landscape. It also identifies circumstances in which screening may itself harm significance by enclosing historically open settings or severing views and relationships.

The final HIA therefore strengthens Chapter 3's central proposition. The receiving historic environment is not a collection of designated buildings around otherwise neutral development land. It is a connected rural landscape in which open fields, lanes, settlement approaches and historic relationships repeatedly form part of the significance of designated assets.

3.30 Cumulative Effects Are Already a Concern to Ecological and Heritage Consultees

Historic England identifies cumulative effects with Tasway Energy Park and associated BESS projects as a potential concern requiring further consideration. Norfolk Wildlife Trust warns of cumulative farmland-habitat loss, fragmentation of ecological networks, degradation of bat commuting landscapes, pressure on protected species and reduced landscape permeability.

Those concerns confirm that the environmental baseline cannot be limited to the existing physical condition of individual East Pye parcels.

Cumulative Context Is Part of the Baseline

Where specialist consultees identify cumulative ecological and heritage risks, the receiving environment cannot be described as a static countryside affected by East Pye alone.

The baseline must recognise the existing and foreseeable concentration of solar, BESS, grid and associated infrastructure and the progressive pressure those developments place on rural character, habitat networks, heritage settings and agricultural continuity.

Deferring that context to a later cumulative-effects table understates its importance. The increasing infrastructure pressure is itself part of the environment into which East Pye would be introduced.

Cumulative Harm Operates Through Common Landscape Systems

The cumulative effect does not arise merely because several projects appear on the same list. It arises because they act upon the same receptors and systems: the same historic rural landscape, the same ecological networks, the same bat populations, the same farmland resource, the same roads and the same settlement settings.

The environmental system has no regard to project boundaries. Successive habitat losses may impair the same ecological network. Separate substations and battery compounds may industrialise the same rural setting. Different construction programmes may burden the same lanes and communities.

The assessment must therefore examine combined change to common receptors, not simply add together project-specific significance conclusions.

Parcel-by-Parcel Assessment Cannot Capture Landscape-Scale Accumulation

A methodology which first divides East Pye into Sites, Sub-Sites and corridors and then treats other projects as separate external additions risks missing systemic transformation.

Individually moderate or localised effects may combine to alter the character and function of the wider countryside. Habitat permeability may decline through repeated severance; heritage settings may be progressively eroded; and agricultural land may become fragmented by multiple energy uses.

The cumulative question is not whether each parcel or project remains tolerable in isolation. It is whether their combined effect would fundamentally transform the connected landscape.

3.31 The Consultees' Qualified Positions Cannot Be Converted into a Finding of Environmental Acceptability

The Applicant may seek to rely on Natural England's statement that it is broadly satisfied and Historic England's view that the heritage assessment is generally appropriate. Those statements must be read in context.

Neither representation amounts to an unqualified endorsement of the Scheme or confirmation that Chapter 3 provides a complete baseline.

Natural England's 'Green' Conclusions Are Conditional

Natural England's agreement regarding European sites, SSSIs and ancient woodland depends on specified mitigation being implemented and legally secured. It requires water-quality and runoff controls, consistent 30-metre buffers, lifetime management measures and detailed DCO provisions.

Its protected-species and soils positions remain amber. Outstanding matters include licence requirements, incomplete ALC surveys, possible peat, permanent infrastructure on BMV land and deferred detail in the Soil Resource and Management Plan.

Natural England's position therefore confirms conditional resolution of some pathways and continuing uncertainty on others. It does not establish general environmental acceptability.

Historic England's Positive Comments Do Not Remove Acknowledged Harm

Historic England considers the heritage assessment generally appropriate and broadly supports aspects of the Site 1 siting. At the same time, it anticipates significant setting effects, policy harm and residual effects; identifies incomplete archaeological evaluation; raises concern regarding the Cable Route Corridor; and flags cumulative effects with Tasway and associated BESS projects.

Those conclusions cannot be reduced to a statement that Historic England is satisfied. Its position is qualified, asset-specific and dependent upon further scrutiny and enforceable mitigation.

Most importantly, Historic England accepts that mitigation will not remove all harm. That residual harm must be identified and weighed, not obscured by selective reliance on areas of agreement.

Norfolk Wildlife Trust Continues to Require Substantial Redesign and Scrutiny

Norfolk Wildlife Trust considers the landscape poorly suited to the form of development proposed and criticises the Applicant for attempting to reshape the landscape to fit the Scheme. It recommends deletion of Site 3, disputes assumptions regarding bat

connectivity, seeks additional botanical and hydrogeological work, and identifies unresolved risks to designated sites, lowland fen, road verges, farmland birds and protected species.

Its overall conclusion is that further information and design refinement are required before the Project can be considered acceptable in ecological and environmental terms.

The Applicant must not aggregate limited or conditional areas of agreement into a general claim that the receiving environment has been adequately described or that the Scheme is environmentally acceptable. The consultees' positions are topic-specific, conditional and materially qualified. Read fairly, they confirm that the baseline remains incomplete, important effects remain unresolved and substantial design and securing work is still required.

3.32 The Consequences for Scheme Design and the Mitigation Hierarchy

The deficiencies in Chapter 3 are not merely descriptive. They go directly to whether the Scheme has been designed in accordance with the mitigation hierarchy. Once the Order Limits are correctly understood as an interconnected landscape of designated and undesignated habitats, nationally important bat activity, hydrologically linked protected sites, BMV land, possible peat, sensitive heritage settings and unresolved archaeology, the first question is not how the resulting harm might be managed. It is why so much development remains proposed in these locations at all.

The August 2026 NPPF now gives that argument a particularly clear contemporary policy basis. Policy N2 requires significant biodiversity harm first to be avoided through locating development on an alternative site with less harmful impacts before moving through mitigation and, only as a last resort, compensation. The same policy requires agricultural quality and grade to be taken into account and poorer-quality land to be used where possible. It also requires ecological networks extending beyond the site to be strengthened. Those provisions do not establish that every environmental constraint requires deletion of development, but they reinforce the need to demonstrate that avoidance has genuinely been applied before relying upon buffers, habitat creation and later management.

The Baseline Requires Avoidance to Be Tested First

Avoidance has not been applied consistently. Norfolk Wildlife Trust continues to recommend deletion of Site 3 because of its relationship with a County Wildlife Site, ancient woodland and bats. It also seeks larger buffers around County Wildlife Sites and Roadside Nature Reserves, protection of sensitive verges and dark commuting corridors, and prior identification of HDD compounds and entry and exit points.

Natural England advises that permanent infrastructure should be reconsidered to avoid BMV land, that any peat within the Order Limits should be identified and avoided, and that the whole cable corridor should be surveyed so that route refinement can avoid or minimise impacts on BMV soils. It also requires consistent protection of ancient woodland and veteran trees through secured 30-metre buffers.

Historic England identifies likely significant setting effects, residual heritage harm, incomplete archaeological evaluation and particular concern regarding the Cable Route Corridor. Those findings require route refinement, relocation and protection of sensitive settings, not merely later archaeological recording or landscape planting.

Taken together, the evidence requires the Applicant to demonstrate why avoidance has not been preferred at the most constrained locations. That includes responding substantively to Norfolk Wildlife Trust's recommendation concerning Site 3; reconsidering permanent infrastructure on BMV land and any confirmed peat; avoiding sensitive hedgerows, verges and habitat corridors where practicable; protecting dark ecological corridors; refining the Cable Route Corridor against the completed ecological, soil, hydrological and archaeological baseline; and considering removal or relocation of development where the final heritage assessment identifies harm which screening cannot satisfactorily address. The issue is not that each of those constraints automatically dictates deletion, but whether the Applicant has shown that avoidance was considered consistently before mitigation was relied upon.

That reverses the mitigation hierarchy. Avoidance should shape the Scheme before submission. It should not be displaced by an assumption that development may remain in sensitive locations provided that buffers, licences and management plans are produced later.

Mitigation Cannot Cure an Overextended Scheme

The Application relies on an extensive apparatus of future mitigation: detailed CEMPs and LEMPs, protected-species licences, soil-management plans, drainage strategies, lighting controls, HDD method statements, archaeological evaluation, habitat restoration, monitoring, adaptive management and remedial measures.

That volume of future control is not evidence that the Scheme is well sited. It is evidence that the Order Limits encompass too many sensitive and functionally important areas.

Norfolk Wildlife Trust says that further information and design refinement are required before the Scheme can be regarded as ecologically acceptable. Natural England retains amber concerns regarding protected species, incomplete soil surveys, peat, BMV land and deferred soil controls. Historic England anticipates residual heritage harm and confirms that archaeological uncertainty remains.

Mitigation may reduce effects, but it cannot retrospectively establish that the original site-selection exercise was sound. Nor can future habitat creation immediately replace

mature hedgerows, established bat corridors, functioning woodland relationships, rare verge flora, irreplaceable fen habitat, productive BMV soils or the historic agricultural settings of designated assets.

The increasing dependence on post-consent detail therefore exposes, rather than resolves, the underlying problem: the Scheme has been spread too widely across a landscape that should have constrained its extent from the outset.

The Order Limits Should Be Reduced, Not Merely Regulated

The appropriate response is material contraction of the Order Limits, removal of the most constrained sites and corridors, and relocation of permanent infrastructure away from BMV land, peat, irreplaceable habitat, key ecological networks and sensitive heritage settings.

The Applicant should not be permitted to retain a maximum development envelope across sensitive land merely because later plans may determine where works ultimately occur. The environmentally responsible boundary is not the widest area within which impacts might subsequently be managed. It is the smallest area demonstrably necessary after avoidance has been exhausted.

Unless the Applicant materially reduces and redesigns the Scheme, the proposed controls would regulate an environmentally overextended project rather than remedy its fundamental siting defects.

3.33 Overall Conclusion: Chapter 3 Conceals the Constraints That Should Have Shaped the Scheme

Chapter 3 describes 1,212.3 hectares of Order Limits, ten dispersed Sites, multiple substations, a BESS, highway works and approximately 24 kilometres of Cable Route Corridor through parcel areas, coordinates, distances and feature lists. It does not explain the environmental significance of that landscape as an interconnected whole.

Norfolk Wildlife Trust describes a materially different baseline: a landscape ‘dense with nature’, containing nationally important bat activity, ancient woodland relationships, species-rich hedgerows, rare flora, farmland birds, County Wildlife Sites, Roadside Nature Reserves and ecologically sensitive verges. It considers the development footprint inefficient, disputes important assumptions about ecological connectivity and continues to recommend removal of Site 3.

Natural England confirms unresolved protected-species, ALC, peat, BMV and soil-management matters. It also identifies hydrological links between the Order Limits and six SSSIs and two ancient woodlands, with its conclusions dependent on mitigation being effective and legally secured.

Historic England confirms that significant setting effects and policy harm are likely in Historic England confirms that changes to setting are capable of producing policy

harm, that residual heritage harm may remain after mitigation, that archaeological evaluation remains incomplete and that cumulative effects require further scrutiny. BEPS's subsequent independent HIA materially strengthens that evidence by identifying less-than-substantial harm from the principal built development to 36 designated assets and adverse effects upon 41 designated heritage assets overall, including two Grade I and three Grade II* buildings. The resulting heritage baseline is therefore materially more constrained than the Applicant's Chapter 3 description suggests.

The current NPPF reinforces the same conclusion at landscape scale. Policy N2 requires the environmental qualities of the selected land, agricultural quality and ecological networks extending beyond the site to be considered, while DP3 requires development to respond to the history, character and features of the site and its setting. Those policies depend upon the very integrated understanding of place which Chapter 3 presently fails to provide.

The defect in Chapter 3 is therefore not that it omits a few additional receptors. It describes the land in a way that suppresses the decisive planning fact: the Scheme has been laid across an exceptionally constrained, connected and sensitive rural landscape. The unresolved problems identified by the statutory and specialist consultees are not incidental matters of mitigation detail. They arise directly from that fundamental siting choice.

3.34 Remedies Sought

BEPS requests that the Examining Authority require the Applicant to provide a revised, integrated receiving-environment plan identifying all County Wildlife Sites, Roadside Nature Reserves, ancient woodland, veteran trees, species-rich verges, principal bat corridors, known roost areas, lowland fen, watercourses, hydrological links, private abstractions, ALC grades, peat, designated heritage assets, Conservation Areas and areas of archaeological uncertainty. That plan should use a current mapping base and identify material changes to the receiving environment since the earlier surveys, including the completed Long Stratton Bypass and its associated drainage, woodland and biodiversity mitigation.

The Applicant should be required to delete or substantially redesign Site 3 and respond directly to Norfolk Wildlife Trust's continuing recommendation that it be removed. Final HDD entry and exit points, compounds and lighting areas should be fixed before the close of Examination, supported by hydrogeological assessment wherever works may affect lowland fen, County Wildlife Sites, ancient woodland or groundwater-dependent habitat.

Complete botanical surveys should be undertaken for all potentially affected road verges, including non-designated verges, AIL routes, highway-work areas, passing places, visibility splays and locations vulnerable to over-running or compaction. A landscape-scale bat-connectivity plan should identify roosts, principal commuting

routes, foraging areas, dark corridors, temporary and permanent severance points, lighting zones and secured buffers.

Complete ALC and soil-resource surveys should cover the whole Order Limits, including every cable corridor, highway-work area, compound and temporary access area. The Applicant should identify all peat soils and relocate permanent infrastructure away from BMV land and peat.

The receiving-environment evidence should also incorporate the final heritage baseline identified through the Examination, including the assets and setting relationships identified in BEPS's final HIA, together with the outstanding archaeological evaluation. Where further evaluation or final infrastructure design materially alters the understanding of significance or setting, the consequences should be fed back into avoidance and layout rather than treated solely as a post-consent mitigation matter.

The Order Limits should then be materially reduced to reflect genuine avoidance of the most sensitive ecological, agricultural, hydrological and heritage constraints. The DCO must secure Natural England's 30-metre buffers, lifetime drainage inspection and maintenance, protected-species safeguards, detailed soil controls, monitoring, enforceable remedial triggers and long-term ecological management. A revised cumulative assessment should address East Pye, Tasway and other relevant solar, BESS, grid and infrastructure projects through the common ecological, heritage, agricultural, hydrological and landscape receptors they affect.

If the Applicant cannot provide that information, complete the outstanding baseline work and materially reduce the Scheme's interaction with the identified constraints, the proper remedy is not further post-consent management. If those deficiencies cannot be resolved during the Examination within the environmental envelope already assessed, the appropriate consequence is refusal rather than reliance upon further post-consent investigation to determine whether the authorised development can be accommodated acceptably.

Summary: Why the Application Should Be Refused

The application should be refused because the Order Limits have been drawn across an exceptionally extensive, interconnected and sensitive rural landscape without the Applicant first demonstrating that the development can be accommodated without unacceptable environmental harm. Chapter 3 describes 1,212.3 hectares of land, ten dispersed Sites, multiple substations, a BESS, highway works and approximately 24 kilometres of cable corridor principally through parcel areas, distances and feature lists. It does not provide an integrated or reliable account of how the landscape functions environmentally, agriculturally, hydrologically, historically or ecologically.

The deficiency is confirmed by the specialist consultees. Norfolk Wildlife Trust describes the area as a landscape 'dense with nature', containing ancient woodland, species-rich hedgerows, rare roadside flora, farmland birds and nationally important bat activity. It disputes key assumptions concerning habitat connectivity, identifies

unresolved effects on County Wildlife Sites and Roadside Nature Reserves, and continues to recommend deletion of Site 3 because of its relationship with woodland, bats and designated ecological interests.

Natural England identifies unresolved protected-species issues, incomplete Agricultural Land Classification surveys across the cable corridor, possible peat, permanent infrastructure on Best and Most Versatile agricultural land and insufficiently detailed soil-management controls. It also confirms that the Order Limits are hydrologically linked to six Sites of Special Scientific Interest and two ancient woodlands. Its areas of agreement are expressly dependent on mitigation being effective, consistently applied and legally secured.

Historic England confirms that the Scheme is likely to cause significant setting effects and policy harm to designated heritage assets, that residual harm is likely to remain after mitigation, that archaeological evaluation is incomplete in parts of the Order Limits and that cumulative effects with Tasway Energy Park and associated BESS development require further examination. Its concerns encompass one Scheduled Monument, two Grade I listed buildings, two Grade II* listed buildings, 42 Grade II listed buildings and four Conservation Areas.

These are not minor matters capable of being cured through post-consent detail. They arise from the fundamental siting and scale of the Scheme. The application depends on future surveys, detailed design, protected-species licences, HDD locations, management plans, soil controls, archaeological evaluation, monitoring, restoration and adaptive mitigation. That extensive dependence on later controls is not evidence of a well-sited project. It demonstrates that the Order Limits encompass too many sensitive and functionally important areas and that the Applicant has not completed the work necessary to show that the development is environmentally deliverable.

The mitigation hierarchy has therefore been applied in reverse. The Applicant has retained an expansive development envelope and sought to regulate its effects after the event, rather than avoiding the most constrained land at the design stage. Site 3 has not been removed; permanent infrastructure remains proposed on BMV land; peat has not been conclusively identified and avoided; the cable corridor remains insufficiently surveyed and refined; ecologically important verges and dark corridors remain exposed; and significant heritage harm and archaeological uncertainty remain unresolved.

The proper response is not another layer of future management. It is material contraction and redesign of the Scheme, including removal of the most constrained sites and corridors and relocation of permanent infrastructure away from BMV land, peat, irreplaceable habitat, key ecological networks and sensitive heritage settings. The Applicant has not undertaken that exercise and has not demonstrated that a materially reduced and less harmful Scheme would be incapable of meeting its stated purpose.

Development consent should therefore be refused. The Applicant has neither adequately described the receiving environment nor shown that the authorised development can be constructed, operated and decommissioned within it without

unacceptable and insufficiently assessed harm. The outstanding ecological, agricultural, hydrological and heritage problems are not incidental defects in mitigation. They are the foreseeable consequence of placing an overextended industrial scheme across a landscape whose constraints should have prevented this Order Limits boundary from being advanced in the first place.

Chapter 4: The Scheme

4.1 The statutory importance of an accurate scheme description

The starting point for the Examination must be a clear and legally reliable identification of the development for which consent is sought. The Examining Authority and, ultimately, the Secretary of State must be able to understand what each numbered work would authorise; the maximum physical and operational parameters of that work; which elements would be permanent and which temporary; the realistic worst-case form of the development; the relationship between components delivered by different bodies; the extent to which individual elements may be constructed separately; and the controls that would prevent the undertaker from subsequently implementing development materially different from that assessed in the Environmental Statement.

This is not a demand for every item of plant, cable connection, fixing or engineering detail to be selected before consent. Major infrastructure applications may legitimately retain detailed-design flexibility where the nature of the development is settled, its maximum parameters are defined, the environmentally worst realistic case has been assessed and the Development Consent Order contains effective controls ensuring that the final design remains within that assessed envelope. The lawful use of design flexibility therefore depends upon the envelope itself being intelligible, complete and enforceable.

A materially different problem arises where the uncertainty concerns not merely the later selection of equipment, but the identity, location, scale, ownership, necessity or delivery of an essential element of the project. A broad design envelope cannot cure uncertainty about whether a major substation will be constructed at the proposed location; whether it will be used by the relevant network operator; whether a battery storage facility will form part of the connected project; whether significant infrastructure will be delivered by the Applicant or by National Grid Electricity Transmission plc; or whether different parts of the authorised development may be omitted or implemented independently. Those are not ordinary matters of detailed design. They concern the development that the DCO would actually authorise.

The need for precision is particularly important in this application because the Scheme is not a single homogeneous generating station. It comprises dispersed solar sites, alternative panel technologies, a Battery Energy Storage System, multiple project substations, a proposed National Grid substation, overhead-line and pylon works, extensive underground cable corridors, numerous temporary and permanent accesses, construction compounds, drainage infrastructure and replacement activities over an asserted 60-year operational period. Some elements would be delivered and operated by the Applicant; others are intended to become part of the national transmission system. Some may be temporary; others may remain permanently after the solar generating station has ceased operating. The DCO must therefore define both the individual works and the operational relationship between them.

The importance of this issue is recognised expressly by South Norfolk Council. The Council states that the DCO must contain ‘robust, precise and enforceable provisions’ and warns that excessive flexibility, lack of precision and insufficient control could undermine the ability of the decision-maker to conclude that the development complies with the relevant National Policy Statements and the statutory framework under section 104 of the Planning Act 2008. It identifies points of principle where the draft Order introduces uncertainty and where inadequate drafting could exacerbate the significant harms already identified in the application.

The same concern appears in the detailed evidence of Norfolk County Council as Lead Local Flood Authority. The LLFA identifies limited descriptions for a number of Work Nos. and observes that infrastructure such as trenching, swales, drainage systems, utility connections, accesses, security measures and improvements to private tracks is grouped generically as ‘associated development’, rather than clearly allocated to the relevant authorised works. It concludes that the combination of limited works descriptions and a high-level generic description of supporting infrastructure produces an unclear description of the proposed development.

The LLFA also identifies internal inconsistency in the use of the term ‘associated development’. In one part of the Scheme Description it appears to refer to supporting infrastructure such as drainage, services and access. Elsewhere, the same expression appears to encompass major project components including the BESS compound, 132 kV substations, 400 kV substations and the National Grid substation. The LLFA further records that the Applicant relies on flexibility in the ‘arrangement’ of substations, conversion units, panels and the BESS, but does not explain whether ‘arrangement’ refers to location, layout, design type or some combination of those matters. These are not semantic objections. The meaning given to those terms determines the scope of development that may be authorised and the extent of post-consent change that may occur without further environmental assessment.

Norfolk County Council additionally identifies inconsistencies between the works descriptions in Environmental Statement Chapter 4 and the corresponding references on the Works Plans. It observes that some Work Nos. are not adequately described and that the supporting drainage and infrastructure required by major components cannot be identified from the Scheme Description with sufficient certainty. The consequence is that neither consultees nor the decision-maker can reliably determine which physical works are included within each numbered work, where those works may be carried out, or whether their maximum environmental consequences have been assessed.

The Environment Agency raises the same issue from the perspective of environmental protection and enforceability. It objects to the repeated use of the phrase ‘substantially in accordance with’ in the Requirements, stating that the expression introduces unnecessary uncertainty and may undermine the enforceability of controls and the environmental commitments on which consultees have relied. The Agency seeks removal of the word ‘substantially’ so that approved plans and mitigation are not weakened by an undefined tolerance for departure.

The Environment Agency also identifies missing maximum design parameters for significant below-ground works. In particular, it states that no maximum design scenario is provided for the depth of foundations or piling associated with the 132 kV and 400 kV project substations. Without a defined maximum vertical extent of ground disturbance, the Agency cannot assess the interaction with groundwater or the risk of creating pollution pathways. This illustrates why a general commitment to resolve engineering details after consent is not sufficient. Where the omitted parameter governs the maximum environmental effect, it must be established and assessed before the DCO is granted.

The statutory-authority evidence therefore demonstrates a common concern. South Norfolk Council identifies excessive flexibility and insufficiently precise DCO controls. Norfolk County Council identifies unclear and inconsistent descriptions of the works and associated development. The Environment Agency identifies incomplete maximum parameters and Requirements whose wording may permit departure from the documents relied upon in the assessment. These concerns arise independently from authorities exercising different statutory functions, but converge upon the same central issue: the development authorised by the Order must be identifiable and its maximum consequences must be controlled.

The Rochdale Envelope principle does not provide a general licence to defer essential characteristics of the project. It permits reasonable flexibility within an identifiable and assessed envelope. It does not answer uncertainty as to whether a major work is required, whether it will be delivered by the Applicant or another undertaker, whether its proposed location is accepted by the future operator, or whether the DCO could authorise a materially different combination of project components. Nor can reliance on future detailed design remedy a failure to assess the maximum depth, footprint, height, number, technology or operational scenario where those parameters determine the scale and significance of environmental effects.

The requirements of accuracy and certainty also extend beyond the Environmental Statement. The description of the Scheme bears directly upon:

- whether consultation was undertaken on the development now sought;
- whether the environmental worst case was assessed;
- whether mitigation corresponds to the works ultimately authorised;
- whether compulsory acquisition is necessary and proportionate;
- whether statutory undertakers' apparatus and rights are properly protected;
- whether the Scheme is technically and commercially deliverable;
- whether independently delivered components can operate together;
- and whether the Requirements are sufficiently precise to be enforced.

The central question is therefore not whether every bolt, cable and item of plant must be selected at application stage. It is whether the DCO defines a development whose maximum physical, operational and environmental consequences have been identified, assessed and made enforceable. For the reasons developed in the following sections, BEPS considers that the application has not yet achieved that standard.

Since this Written Representation was prepared, the National Planning Policy Framework was replaced on 17 August 2026. The Energy NPSs remain the primary policy framework for this NSIP, but the current NPPF materially reinforces the importance of controlling the development which is actually authorised. Policy DP3 requires development to respond to the history, character and features of its site and setting and to integrate with its surroundings, while Policy DP4 requires design quality to be considered throughout project evolution, assessment and delivery and guards against approved design quality being materially diminished during later detailed design. Those principles are particularly relevant where, as here, substantial elements of final layout, equipment technology and ancillary infrastructure remain to be determined after consent. The DCO must therefore secure the design quality and environmental assumptions relied upon at Examination rather than merely authorise an envelope within which an acceptable design may subsequently be sought.

4.1.1 The Applicant's reliance on the Rochdale Envelope

The Applicant expressly relies upon the Rochdale Envelope. ES Chapter 4 states that the physical description of the Scheme informs every technical assessment in ES Chapters 6 to 18. It recognises that aspects of the design remain unfixed, including the arrangement of the solar panels, conversion units, BESS, project substations, National Grid substation and Grid Connection Infrastructure. The Applicant says that the application and EIA are therefore based on maximum and, where relevant, minimum parameters selected to represent the realistic worst case for each environmental receptor.

The Applicant further states that Table 4.1 identifies the parameters assessed in the ES and that the Design Principles, Parameters and Commitments document provides the principles and maximum parameters for detailed design. Its case is that the draft DCO will require the detailed design to accord with that document, ensuring that the resulting environmental effects are 'the same as or no worse than' those assessed in the Environmental Statement.

That express case establishes the standard against which the application must be examined. It is not sufficient for a parameter merely to appear somewhere within the application. The decision-maker must be satisfied that:

1. every parameter capable of materially affecting an environmental receptor has been identified;
2. the stated maximum is internally consistent across the application documents;
3. each technical chapter has actually assessed the relevant maximum or other realistic worst case;
4. the Works Plans and draft DCO authorise no wider development;
5. and the Requirements make compliance with the assessed envelope legally enforceable.

A Rochdale Envelope does not dilute the obligation to describe the development. It permits limited design flexibility within a defined and assessed boundary. Its legitimacy depends upon the envelope being sufficiently complete, intelligible and controlled to

ensure that the development ultimately constructed cannot produce materially different or greater effects.

4.1.2 Legitimate detailed-design flexibility

BEPS does not suggest that every bolt, cable termination, equipment supplier or minor engineering detail must be selected before consent. Legitimate detailed-design flexibility may include, for example:

- selection between manufacturers whose equipment remains within fixed dimensions and environmental performance standards;
- adjustment of equipment positions within a clearly defined compound;
- refinement of drainage details within a secured maximum impermeable area and discharge regime;
- and selection of a foundation technique within assessed maximum dimensions and depths.

Such flexibility is capable of being lawful where the essential character of the work is settled, the range of possible outcomes is defined, the environmentally worst realistic outcome has been assessed and the DCO prevents departure from that envelope.

The application does provide some maximum parameters of this kind. For example, Table 4.1 specifies maximum panel heights, mounting depths, substation compound areas, cable-trench dimensions, pylon heights and certain building dimensions. Those stated parameters can, in principle, form part of a lawful design envelope, provided they are consistently assessed and secured.

4.1.3 Uncertainty concerning the essential nature of the development

A materially different problem arises where the uncertainty does not concern later equipment selection but the identity, location, scale, ownership, necessity or delivery of an essential work.

That includes uncertainty about:

- whether a proposed National Grid substation will form the final point-of-connection solution;
- whether NGET will construct or use that substation;
- whether the solar and BESS components will be delivered as one integrated project;
- whether the BESS can be omitted, delayed or materially reduced;
- whether major works may be constructed independently;
- whether infrastructure authorised for one connection solution could remain unused if a different solution is selected;
- and whether compulsory powers are sought for works that may not be required.

ISH1 has since confirmed that the retained uncertainty extends further than was apparent when this Written Representation was drafted. The Applicant confirmed that the Illustrative Masterplan is indicative rather than determinative; that important

choices remain open concerning AIS or GIS technology for the project substations; that the precise number and location of 33 kV switch rooms and conversion units remain to detailed design; that ancillary operational buildings may be distributed across the Sites; and that material aspects of fencing, lighting, construction compounds and layout remain capable of later refinement. The ExA consequently required additional parameters, illustrative material and explanations of how those components would be controlled.

Those matters strengthen the distinction drawn in this section. The issue is not whether a manufacturer or exact equipment model remains to be selected, but whether the spatial accumulation, number, technology and distribution of material infrastructure have been sufficiently defined for their combined environmental effects to be assessed and secured. Those are not ordinary matters of detailed design. They determine the nature of the project that the DCO would authorise.

The distinction is fundamental. Selection between two transformer models within a fixed compound may be a detailed-design matter. Selection after consent of a different substation location, a different point of connection, a materially different operational configuration, or a solar-only development in place of the assessed solar-and-storage project is not.

A broad envelope cannot cure uncertainty where the unresolved matter is the identity of the development itself. Nor can post-consent approval properly be used to determine whether an essential work is required, where it will be constructed, who will deliver it or whether the project can operate without it.

4.1.4 The breadth of the authorised works

The need for precision is reinforced by the breadth of Schedule 1 as described in ES Chapter 4. The authorised development is divided into overlapping Work Areas, including:

- Work No. 1: the solar generating station and associated electrical equipment;
- Work No. 2: the BESS compound, access and temporary construction compounds;
- Work Nos. 3A and 3B: up to three 400 kV and up to three 132 kV project substations;
- Work Nos. 4A to 4C: the National Grid substation, associated landscaping, drainage, biodiversity works, temporary compound and access;
- Work Nos. 5A to 5D: new, modified, diverted and removed overhead-line and pylon works;
- Work No. 6: cables up to 132 kV and 400 kV, including tunnelling and supporting infrastructure;
- Work No. 7: fencing, security, access, earthworks, drainage, acoustic barriers, connections and laydown areas;
- Work No. 8: temporary construction and decommissioning laydown areas;
- Work No. 9: access and highway works;
- Work No. 10: habitat-management areas;
- and Work No. 11: permissive paths.

The Work Areas may overlap. In addition, paragraph 4.2.17 describes a very broad category of associated development connected with Works Nos. 1 to 11, including bunds, embankments, trenching, swales, drainage, utilities, accesses, private-track works, site preparation, earthworks, excavations, tunnelling, boring, drilling and other mitigation works.

This drafting makes it especially important that the plans, parameters and Requirements identify where such works may occur, their maximum extent and the principal work to which they relate. Otherwise, generic associated-development powers may extend the physical development beyond the particular works and effects described in the Environmental Statement.

4.1.5 South Norfolk Council's concern about excessive flexibility

South Norfolk Council expressly identifies this issue. It states that the DCO must contain robust, precise and enforceable provisions and warns that excessive flexibility, lack of precision or inadequate controls could undermine the ability of the decision-maker to conclude that the development accords with the relevant National Policy Statements and the section 104 framework.

The Council explains that points of principle arise where the current drafting introduces uncertainty or insufficient control, particularly where those defects may exacerbate the substantial landscape, heritage, ecological and amenity harms already identified.

This is not an objection to design evolution in principle. It is an objection to flexibility that is not bounded by precise maximum parameters or enforceable approval mechanisms.

South Norfolk Council also identifies a specific uncertainty in Requirement 5. It notes that the detailed-design Requirement does not include Works Nos. 4A and 4B relating to the proposed National Grid substation and asks whether those works would be undertaken separately by National Grid or approved through a separate planning application.

That is a direct illustration of the distinction between detailed design and uncertainty about an essential work. If the principal detailed-design Requirement does not apply to the National Grid substation, the application must identify:

- who will approve its detailed design;
- under what statutory mechanism;
- by reference to which environmental parameters;
- and how the decision-maker can be assured that the resulting infrastructure will remain within the assessed envelope.

4.1.6 Norfolk County Council's concern about unclear works descriptions

Norfolk County Council's Lead Local Flood Authority reaches a similar conclusion from its review of the Scheme Description.

The LLFA identifies limited information in the descriptions of a number of Work Areas, including Works Nos. 8, 10 and 11. It observes that supporting infrastructure such as trenching, swales, drainage systems, services, utilities, access, security measures and improvements to private tracks is grouped within a generic associated-development description rather than clearly allocated to individual Work Nos. The LLFA concludes that this combination of limited works descriptions and generic supporting infrastructure produces an unclear description of the proposed development.

The LLFA also identifies two different uses of the expression 'associated development'. In one place it refers to supporting infrastructure such as drainage, utilities and access. Elsewhere it is used to describe major components including the BESS compound, 132 kV substations, 400 kV substations and National Grid substation. It further records that the Applicant seeks flexibility in the 'arrangement' of those components but does not make clear whether 'arrangement' concerns location, layout, technology, configuration or design type.

That ambiguity matters because the environmental consequences of moving equipment within a compound may be limited, whereas changing the location or configuration of an entire substation may materially alter:

- landscape and visual effects;
- heritage setting;
- noise exposure;
- flood risk;
- groundwater effects;
- construction traffic;
- aviation safeguarding;
- and the land required.

The LLFA also records inconsistencies between the works descriptions in ES Chapter 4 and the references on the Works Plans. The Applicant must therefore reconcile the narrative description, Table 4.1, Works Plans, Land Plans, Design Principles, draft DCO and Commitments Register in a single authoritative schedule.

Norfolk County Council's concern about unclear works descriptions and inconsistent mapping

The reliability of the Scheme Description also depends upon the accuracy and consistency of the plans used to define the authorised development. The Works Plans are not merely illustrative background material. They identify the geographical extent and relationship of the numbered works and are therefore central to understanding what the DCO would authorise. Where those plans use outdated base mapping or are

inconsistent with other application drawings, it becomes more difficult for consultees and the decision-maker to identify the development, its interaction with existing infrastructure and the land over which powers are sought.

Norfolk County Council's targeted-consultation response provides a specific example. In relation to additional land areas 8 and 9, the County Council's Lead Local Flood Authority states that the Applicant was using outdated base mapping because the plans did not show or consider the operational Long Stratton Bypass. The LLFA concluded that this demonstrated that the relevant assessment had not been undertaken using the latest available information and required further work.

That defect is particularly significant because the Long Stratton Bypass was no longer a merely proposed development. It was operational by the time of the County Council's November 2025 response. A Works Plan or supporting assessment that continues to depict the previous highway arrangement does not provide an accurate representation of the environment within which the authorised works would be constructed.

The absence of the bypass potentially affects more than cartographic presentation. It may affect:

- the identification of existing roads and junctions;
- the relationship between Work No. 9 highway works and the current highway network;
- construction and AIL routeing assumptions;
- drainage catchments and impermeable highway areas;
- access to individual sites and compounds;
- cumulative traffic assessment;
- vegetation and land-take assumptions;
- and the accuracy of environmental baseline mapping.

The outdated Works Plan must also be considered alongside the wider evidence of inconsistent mapping across the application. Norfolk County Council's LLFA identifies inconsistencies between ES Chapter 4 and the Works Plans. Other parts of the application use different depictions of the Scheme, infrastructure proposals and surrounding development. Major developments are at times represented only by point symbols rather than their true geographical extent, while proposed and operational infrastructure is not shown consistently between plans.

The result is that there is no single, reliable geographical representation against which the full extent of the authorised development can readily be checked. That undermines the Applicant's reliance on Chapter 4 and the Works Plans as the definitive basis for the environmental assessment.

The Applicant should therefore be required to provide:

1. corrected Works Plans using an up-to-date Ordnance Survey or equivalent base;
2. plans showing the operational Long Stratton Bypass accurately;
3. a schedule identifying every application plan that has been superseded or corrected;
4. a reconciliation plan showing all numbered works, existing infrastructure and relevant committed development on one consistent base;

5. confirmation that all environmental assessments used the corrected geography;
6. and revised assessments where the outdated mapping affected routeing, drainage, land take, access or receptor identification.

The issue is not remedied merely by acknowledging that the base map is old. The Examining Authority must be satisfied that the development assessed geographically corresponds with the development shown on the certified Works Plans and capable of being authorised by the DCO.

The Examination has now identified a further internal-plan problem. The ExA required the Applicant to correct inconsistencies between the Indicative Masterplan and the Works Plans, including areas variously depicted as retained agricultural land, mitigation land, biodiversity land and cabling works. That is directly relevant to Scheme definition because those are not interchangeable land uses. The same area cannot simultaneously be relied upon as retained agricultural land, biodiversity mitigation and construction or cable land without the environmental consequences of each permitted use being reconciled.

4.1.7 The Environment Agency's concern about incomplete and uncertain controls

The Environment Agency raises the same issue from the perspective of environmental protection and enforcement.

It objects to the repeated use of the phrase 'substantially in accordance with' in the Requirements. The Agency states that this wording undermines enforceability and creates unnecessary uncertainty because it may allow departure from documents and mitigation commitments upon which the Agency and other consultees relied. It therefore seeks removal of the word 'substantially'.

The concern is particularly material to decommissioning. ES Chapter 4 states that the future Decommissioning Strategy would be prepared 'substantially in accordance with' the Outline Decommissioning Environmental Management Plan. Yet the specific decommissioning method remains uncertain, the National Grid substation and Grid Connection Infrastructure would remain, below-ground infrastructure may be cut off at 1.2 metres, and cables, ducts and joint bays may be left in place.

An undefined tolerance for departing from the outline document would therefore apply to a phase in which the application already retains substantial uncertainty about what will be removed and what will remain.

The Environment Agency also identifies incomplete maximum design information concerning foundations, piling, cabling, drainage and groundwater interaction. Although Table 4.1 supplies maximum depths for several categories of works, including piles up to 12 metres for substations and BESS equipment, the Agency considers that the maximum design scenario is not sufficiently complete or clear across all relevant structures and locations to assess groundwater effects reliably.

This should be resolved by a structure-by-structure and location-by-location maximum foundation schedule, rather than by reliance on generic post-consent risk assessment.

4.1.8 Consequences for the Examination

The same audit must be undertaken geographically. The Applicant should demonstrate that the final Works Plans, Land Plans, Access and Rights of Way Plans, environmental figures and construction-route plans all use a consistent and current baseline. The known omission of the operational Long Stratton Bypass from the Works Plan is evidence that this exercise has not yet been completed.

A DCO should not be made by reference to certified plans that inaccurately depict material existing infrastructure. If the Works Plans are corrected during Examination, the Applicant must explain whether the amendment changes:

- the limits of deviation;
- the relationship between numbered works;
- the land and rights sought;
- highway and drainage effects;
- construction access;
- or the environmental assessment.

Where a correction is substantive rather than purely cartographic, affected parties must be given a fair opportunity to understand and comment on the revised proposal.

An inaccurate or incomplete Scheme Description affects more than the presentation of the application. It bears directly upon:

- whether the development now sought was the development consulted upon;
- whether the realistic worst case has been assessed;
- whether mitigation corresponds to the works ultimately authorised;
- whether independently delivered components can operate together;
- whether the Scheme is technically and commercially deliverable;
- whether compulsory acquisition is necessary and proportionate;
- whether statutory undertakers' rights and apparatus can be protected;
- whether cumulative effects have been assessed against a reliable programme and configuration;
- and whether the Requirements can be enforced.

The Applicant's own approach makes this especially important. It says that the parameters in Chapter 4 inform all technical assessments and that the detailed design will produce effects no worse than those reported. If any technical chapter has assessed an earlier, smaller or different configuration, the Applicant's claimed control mechanism fails.

The Examination must therefore audit the technical assessments against the final Chapter 4 envelope, including:

- tracker panels up to 4.5 metres;
- fixed panels up to 3.5 metres;
- panel piles up to 4 metres;
- project-substation piling up to 12 metres;
- the Site 1B project substation up to 15 metres;
- the National Grid substation occupying up to six hectares;
- up to four new pylons reaching 61 metres;
- cable trenches up to seven metres wide and two metres deep;
- trenchless works reaching 12 metres;
- complete replacement of all panels over a further period of up to 24 months;
- up to five BESS replacement cycles;
- and permanent retention of the National Grid substation and Grid Connection Infrastructure.

The central question is not whether every bolt, cable and item of plant must be fixed at application stage. It is whether the DCO defines a development whose maximum physical, operational and environmental consequences have been identified, assessed and made enforceable. For the reasons developed below, BEPS considers that the application has not yet demonstrated that the authorised development, the assessed development and the development ultimately capable of being delivered are one and the same.

4.2 Authoritative description of the development applied for

The application describes East Pye Solar as a large, dispersed solar photovoltaic generating station with associated battery storage, project substations, a new National Grid substation, underground cable infrastructure, overhead-line works, access and construction infrastructure. South Norfolk Council summarises the application as a proposed 500 MW solar farm with a Battery Energy Storage System, up to three 132 kV substations, up to three 400 kV substations and a new National Grid substation. Norfolk County Council records that the Order Limits extend across approximately 1,212 hectares of agricultural land and that the Scheme is anticipated to have an operational life of 60 years.

That summary, however, does not itself define the full development authorised by the DCO. The Scheme includes alternative technologies, dispersed work areas, substantial temporary infrastructure, repeated replacement activity and elements intended to remain after decommissioning. It is therefore necessary to describe each principal component and to identify where the application retains flexibility or leaves material parameters unresolved.

4.2.1 Solar photovoltaic generating station

The generating element comprises solar photovoltaic development distributed across multiple sites and sub-sites within the Order Limits. Norfolk County Council records

that the application retains both single-axis tracker panels and fixed panels as options and has not narrowed the design to one technology.

The distinction is environmentally material. South Norfolk Council records that tracker panels may reach a maximum height of approximately 4.5 metres and identifies their movement, changing orientation and greater visual prominence as materially different from lower fixed panels. The Council seeks controls requiring panels of no more than approximately 3 metres in sensitive locations, including within the settings of heritage assets.

The authorised solar development therefore appears capable of comprising:

- fixed photovoltaic panels;
- single-axis tracking panels;
- mounting structures secured by driven posts, screw piles, concrete feet or other non-ground-penetrative techniques;
- electrical conversion equipment;
- inverter or conversion units;
- switch rooms;
- internal cabling;
- perimeter fencing;
- security infrastructure;
- CCTV and monitoring equipment;
- internal access tracks;
- drainage works;
- and associated landscaping and ecological mitigation.

The Scheme Description must identify, for each technology, the maximum:

- panel height;
- panel length and width;
- tilt and rotational range;
- row spacing;
- minimum ground clearance;
- mounting depth;
- foundation footprint;
- extent of hardstanding;
- and number and dimensions of associated conversion units.

The available authority evidence indicates that not all of those parameters are presently fixed. Norfolk County Council's LLFA notes, for example, that the application permits concrete feet or other non-ground-penetrative mounting techniques but does not clearly identify all circumstances in which those techniques may be used or their maximum dimensions. The LLFA consequently cannot determine the resulting increase in impermeable area or the drainage infrastructure required.

The application must also explain whether fixed and tracking panels may be mixed freely across all solar sites, whether any site-specific technology restrictions apply, and whether the environmental assessment consistently adopts the more harmful option

for each receptor. A nominally common ‘solar panel’ envelope cannot be treated as environmentally neutral where panel height, movement, mounting method, reflectivity, vegetation clearance, runoff behaviour and visual effects differ materially.

ISH1 has since exposed an additional uncertainty concerning the scale of Work No. 1 itself. The ExA required the Applicant to explain the proposed overplanting ratio and panel ratings, provide hectares-per-MW comparisons with other consented or proposed solar schemes, explain why panel type and final locations remain unfixed, identify minimum separation distances and address whether the absence of an express maximum generating-capacity limit could permit a materially greater installed capacity within the same physical envelope.

This matters because a physical-envelope approach is only sufficient if all environmentally relevant consequences remain bounded independently of electrical output. If technological change permits materially greater generating capacity within the same fields, the Applicant must demonstrate that the resulting number or rating of inverters, transformers, conversion units, switchgear, cooling requirements, noise, heat, EMF, replacement activity and grid infrastructure cannot exceed the assumptions assessed in the ES.

The ExA also required the Applicant to explain why East Pye relies upon a minimum residential separation of 50 metres where the Applicant’s related Droves Solar Farm uses 250 metres. That comparison does not establish that 250 metres is automatically required at East Pye, but it does require the Applicant to explain the environmental and design basis for the materially different minimum adopted here.

4.2.2 Battery Energy Storage System

The Scheme includes a Battery Energy Storage System forming part of the associated development. The BESS is described as occupying a dedicated compound and comprising battery enclosures, power-conversion and electrical equipment, transformers, cooling systems, auxiliary plant, security fencing, access, drainage and fire-safety infrastructure.

The application must define, or expressly acknowledge that it does not define:

- the electrical storage capacity;
- discharge duration;
- maximum compound area;
- maximum number of battery enclosures;
- maximum enclosure dimensions and height;
- battery chemistry or technology envelope;
- number and rating of transformers;
- cooling and ventilation plant;
- auxiliary generation;
- acoustic mitigation;
- fencing and wall heights;
- fire separation distances;

- internal access and emergency routes;
- surface-water drainage;
- firewater containment;
- and the maximum volume of potentially contaminated water requiring storage.

Norfolk County Council's LLFA records that the Applicant had not identified the number or size of the battery storage enclosures and that the BESS might be founded on a reinforced concrete slab or concrete piling. It observes that the equipment, compound, hardstanding and access tracks would create a material impermeable area, but the Scheme Description does not adequately identify the corresponding drainage and attenuation requirements.

The Environment Agency similarly identifies insufficient detail regarding the drainage and pollution-control design of the BESS. It seeks clear confirmation that the entire drainage system would be impermeable, that contaminated firewater could be isolated and contained, that automatic and manual closure systems would be provided, and that the design would accommodate decontamination and potential removal of contaminated drainage aggregate.

The Environment Agency also notes that the BESS could be replaced up to five times during the operational period but considers that the application provides inadequate detail regarding the removal, temporary storage and disposal of damaged or end-of-life batteries. The BESS description must therefore encompass not only its first installation but the maximum foreseeable replacement activity authorised over the 60-year project life.

The Scheme Description must now also distinguish physical authorisation from connection deliverability. The BESS remains at Gate 1 whereas the solar element has progressed to Gate 2. The existence of Work No. 2 within the DCO therefore does not establish that it will connect, commission or operate on the same timetable as the solar generating station.

The description of Work No. 2 should consequently state whether the BESS is mandatory, severable or optional; whether the solar generating station can operate without it; whether it may be commissioned substantially later; and whether its capacity, duration, technology or operating regime may change if connection is delayed. Those implementation scenarios are part of the development capable of being authorised and cannot be left merely as commercial possibilities outside the environmental assessment.

4.2.3 Project substations

The application includes multiple project substations required to collect, transform and transmit electricity from the dispersed solar sites and the BESS. South Norfolk Council

describes the Scheme as including up to three 132 kV substations and up to three 400 kV substations.

The substations may include:

- power transformers;
- switchgear;
- busbars;
- control and protection equipment;
- control buildings;
- switch rooms;
- telecommunications equipment;
- welfare facilities;
- security fencing;
- lighting;
- internal roads;
- hardstanding;
- drainage;
- oil containment;
- firewater containment;
- and permanent access.

The application must state the maximum number of substations that may be built, their maximum footprints and heights, whether they may be single or double configurations, the maximum number and capacity of transformers, the maximum oil inventory, and the maximum extent of buildings, hardstanding and drainage infrastructure.

Norfolk County Council's LLFA records that the application does not clearly establish where all 132 kV equipment will be placed or whether substations will be single or double installations. It identifies the same uncertainty in relation to the 400 kV substations and concludes that the corresponding impermeable areas and surface-water runoff cannot be quantified from the Scheme Description.

The Environment Agency identifies a further gap: no maximum design scenario is provided for the depth of foundations or piling associated with the 132 kV and 400 kV substations. It considers that the potential interaction with groundwater cannot be assessed without that parameter.

The application also underwent a material design change from a 132 kV project substation to a 400 kV installation at Site 1B. Norfolk County Council records that the change increased the proposed maximum height from approximately 7 metres to approximately 13 metres and appeared to involve a significantly larger footprint. That changed component must be treated as part of the authoritative Scheme Description, rather than as a minor detailed-design variation.

ISH1 has subsequently confirmed that the Applicant continues to retain both AIS and GIS options for project substations, principally because procurement and final equipment selection remain unresolved. The ExA required the Applicant to identify the reasonable worst case associated with those alternatives. That is important because

AIS and GIS do not necessarily produce the same footprint, massing, building requirement, visual effect, construction requirement, SF6-related characteristics or maintenance environment.

The Examination also established that the precise number and location of 33 kV switchrooms and conversion units remain unfixed and that these components may occur throughout Work No. 1 areas. The resulting environmental issue is therefore not merely the maximum dimension of one unit, but the number, spacing and cumulative visual, landscape, noise, drainage and access effect of all units which the DCO could permit.

4.2.4 National Grid substation and associated grid works

The Scheme includes a proposed new National Grid substation at Site 1B and associated works to connect it to the existing 400 kV overhead transmission network. The draft Order identifies National Grid substation works under Work Nos. 4A and 4B, together with associated overhead-line and pylon works.

The National Grid element appears to include:

- a new transmission substation;
- diversion of the existing dual-circuit 400 kV overhead line;
- new or replacement pylons;
- overhead conductors;
- connection or sealing-end infrastructure;
- control and protection equipment;
- access roads;
- fencing and security;
- hardstanding;
- drainage;
- lighting;
- and land required for construction and permanent operation.

Norfolk County Council records that the assumed footprint of the National Grid substation increased from approximately three hectares at consultation to up to six hectares in the application. It states that the location remained indicative and that no final design had been provided.

The targeted-consultation evidence also records the potential need for a new 400 kV pylon of up to approximately 61 metres, compared with existing pylons of approximately 53 metres. The application must identify the maximum number, height, location and type of new or replacement pylons and the extent of any permanent overhead-line diversion. The National Grid substation is separately subject to a maximum busbar height of 15 metres.

The Scheme Description must further distinguish:

- works constructed by the Applicant;

- works constructed by NGET;
- land acquired by the Applicant;
- land transferred to or retained by NGET;
- assets owned and operated by NGET;
- and works for which detailed approval would occur outside the Applicant's principal design-control Requirement.

South Norfolk Council notes that the detailed-design Requirement does not appear to include Works Nos. 4A and 4B and asks whether those works would be undertaken separately by National Grid or approved through another planning route. That uncertainty must be resolved in the authoritative description of the development.

4.2.5 Cable Route Corridors

The Scheme includes extensive underground cable corridors connecting the solar sites, substations, BESS and National Grid connection infrastructure. Those works may comprise:

- high-voltage and lower-voltage cables;
- internal array cabling;
- cable trenches;
- ducts;
- joint bays;
- link boxes;
- trenchless crossings;
- horizontal directional drilling;
- launch and reception pits;
- temporary haul roads;
- temporary compounds;
- soil-storage areas;
- drainage and dewatering;
- reinstatement;
- and permanent marker or access infrastructure.

The application must identify:

- the maximum corridor width;
- maximum construction working width;
- number and voltage of cables;
- maximum trench depth and width;
- number and dimensions of joint bays;
- maximum HDD depth and length;
- launch and reception pit dimensions;
- locations of watercourse and infrastructure crossings;
- and the extent of land required temporarily and permanently.

Norfolk County Council identifies an absence of detail concerning the cabling associated with the photovoltaic arrays and states that the cumulative below-ground effects of piling and cabling cannot therefore be determined with confidence.

The Environment Agency identifies further uncertainty concerning the operational lifespan of below-ground cabling, possible thermal effects, the risk of cable trenches acting as preferential groundwater pathways and the design of trenchless crossings. Those matters are part of the development authorised, not merely future construction methodology.

4.2.6 Accesses, haul roads and construction infrastructure

The Scheme requires substantial temporary and permanent construction infrastructure distributed across the Order Limits. That infrastructure includes:

- construction compounds;
- laydown areas;
- temporary and permanent access points;
- internal haul roads;
- cable-route haul roads;
- road-crossing points;
- temporary hardstanding;
- worker welfare facilities;
- temporary water and power supply;
- wheel-wash facilities;
- fuel, oil and chemical storage;
- soil and spoil-storage areas;
- temporary drainage;
- temporary lighting;
- security fencing;
- highway visibility splays;
- abnormal indivisible load works;
- temporary removal of street furniture;
- vegetation clearance;
- and local highway alteration.

Norfolk County Council's LLFA records that approximately ten temporary construction compounds are shown only at a scale that does not reveal their size or layout. It cannot determine whether those compounds and associated hardstanding have been allowed for in the surface-water drainage design.

The targeted-consultation material also added land for visibility splays, AIL movements, temporary highway works and vegetation removal. Norfolk County Council identified a number of those areas as lacking sufficient information to establish whether new impermeable surfaces, drainage works or access tracks would be required.

The construction description must therefore identify the maximum number and area of compounds, the maximum length and width of haul roads, the land required for AIL works and the maximum area of vegetation removal. General reliance on later Construction Traffic Management Plans and Construction Environmental Management Plans cannot substitute for identification of the physical development and land powers sought in the DCO.

4.2.7 Operational period, replacement and repowering

The application assumes an operational period of 60 years. Norfolk County Council records that the Environmental Statement assumes:

- solar panels may have an operational life of approximately 40 years and may be replaced once;
- the BESS could be replaced up to five times;
- and transformers may require replacement during the Scheme's operational life.

These activities must form part of the authoritative project description because they may involve:

- removal and delivery of large quantities of equipment;
- re-establishment of compounds;
- heavy goods vehicles and abnormal loads;
- lifting operations;
- noise and vibration;
- soil disturbance;
- temporary drainage;
- hazardous and non-hazardous waste;
- battery storage and transport;
- and temporary interference with ecological mitigation.

The application must state whether complete replacement of each component is expressly authorised, whether any maximum replacement frequency or simultaneous work area applies, and whether replacement is treated as operational maintenance or as a renewed construction phase.

The Environment Agency's concern regarding repeated BESS replacement illustrates the significance of the omission. It seeks details of how removed batteries would be handled, stored and taken off site, particularly where damaged or leaking batteries may pose a pollution risk. South Norfolk Council similarly seeks controls ensuring that replacement equipment does not worsen the operational noise environment.

4.2.8 Decommissioning and retained infrastructure

At the end of the 60-year operating period, the application proposes removal of the solar panels, BESS and much of the associated infrastructure. The Scheme Description must, however, distinguish clearly between:

- infrastructure that must be removed;
- infrastructure that may be left in place;
- infrastructure that will be transferred to another operator;
- and development that is intended to remain permanently.

Norfolk County Council's LLFA records that the National Grid substation, pylons and overhead-line works appear intended to remain after the solar development is

decommissioned. It also records that cable ducting and joint bays may remain in situ and that below-ground foundations may only be removed to a specified depth. The LLFA considers that infrastructure not intended to be removed should be treated and assessed as permanent development.

The Environment Agency identifies inconsistencies in the application documents concerning whether the National Grid substation and grid connection infrastructure would be subject to decommissioning. The DCO must therefore contain an unambiguous schedule identifying every work that will be removed, every work that may remain, the body responsible for retained infrastructure and the environmental controls that will continue to apply.

4.2.9 Consolidated description and identified uncertainties

The development applied for may be summarised as follows:

Scheme component	Development apparently authorised	Principal maximum or operational parameters	Material uncertainty requiring resolution
Solar generating station	Dispersed ground-mounted photovoltaic arrays across multiple sites and sub-sites	Up to approximately 500 MW; fixed and/or single-axis tracking panels; trackers up to approximately 4.5 m	Final technology by site; row arrangement; foundation methods and depths; total equipment numbers; minimum clearance and impermeable footprint
Mounting and conversion infrastructure	Driven or screw-mounted posts, concrete feet, conversion units, inverter equipment and switch rooms	Multiple foundation and equipment alternatives	Maximum foundation dimensions and depths; drainage consequences; distribution and number of units
BESS	Battery enclosures, transformers, cooling plant, auxiliary systems, fencing, access and firewater infrastructure	Dedicated compound; repeated replacement contemplated	Capacity and duration; technology; enclosure number, size and height; maximum compound layout; drainage and firewater capacity
132 kV project substations	Transformers, switchgear, buildings, access and drainage	Up to three stated by South Norfolk Council	Single or double configurations; equipment numbers; footprints;

			heights; oil inventory; foundation depth
400 kV project substations	Transformers, switchgear, buildings, access and drainage	Up to three stated by South Norfolk Council; Site 1B installation increased from approximately 7 m to 13 m	Final configuration; equipment and transformer numbers; maximum footprint; foundation depth; full reassessment of 132-to-400 kV change
National Grid substation	New transmission substation at Site 1B under Work Nos. 4A and 4B	Assumed footprint up to approximately 6 ha	Final location, size and design; NGET acceptance; Applicant/NGET division of responsibility; detailed approval mechanism
Overhead-line and pylon works	Diversion and connection to existing 400 kV line	New or replacement pylons potentially up to approximately 61 m	Final number, design and alignment; ownership; construction responsibility; permanent retention
Cable Route Corridors	Underground cables, trenches, ducts, joint bays and trenchless crossings	Broad corridors across the Scheme	Cable numbers and voltage; maximum working widths; trench and HDD dimensions; crossing locations; cable lifespan
Construction compounds	Temporary compounds, laydown, welfare, materials and plant	Approximately ten compounds referred to by NCC LLFA	Maximum area, layout, hardstanding, drainage and duration
Access and haul roads	Temporary and permanent accesses, internal roads and cable haul routes	Extensive network across dispersed sites	Final routes; widths; impermeable area; highway crossings; restoration
AIL and highway works	Visibility splays, road alteration, vegetation and street-furniture removal	Added land identified at targeted consultation	End-to-end routes; physical highway works; land requirements; drainage and reinstatement

Operational replacement	Replacement of panels, BESS and transformers	Panels potentially replaced once; BESS up to five times; transformers during project life	Maximum simultaneous replacement; compounds; traffic; waste; battery handling; environmental controls
Decommissioning	Removal and restoration at end of 60 years	Solar and BESS removal generally proposed	Infrastructure left in situ; retained cables, ducts, foundations, pylons and National Grid works; long-term responsibility

This is the development that must be reconciled against the numbered works, Works Plans, Land Plans, Environmental Statement, Requirements and Commitments Register. Where the application leaves a parameter undefined, the Applicant must either provide and assess a maximum value or accept a binding DCO control restricting the development to the envelope actually assessed.

Until that reconciliation is completed, the description of East Pye Solar remains partly a description of a project concept and partly a collection of alternative future designs. The function of the DCO, however, is to authorise identifiable development. The remainder of this chapter examines whether the uncertainties summarised above concern permissible detailed design or the essential nature and deliverability of the Scheme itself.

4.3 Material design evolution after statutory consultation

The Scheme submitted for development consent is not the same design that was presented during the Phase Two statutory consultation undertaken between 18 June and 6 August 2025. Following that consultation, the Applicant made a series of changes affecting the location, scale and configuration of major electrical infrastructure, the extent of solar development, the Order Limits, abnormal-load works and the construction traffic strategy.

Design evolution is not objectionable in itself. Consultation is intended to inform and improve a proposal. The material question is whether changes made after statutory consultation were accompanied by sufficient updated environmental information to allow consultees and the decision-maker to understand their effects, compare them with the PEIR scheme and determine whether the final application remained within the environmental envelope previously presented.

In this case, the Applicant proceeded by way of a targeted non-statutory consultation between 22 October and 26 November 2025. South Norfolk Council records that the information supplied consisted principally of a 20-page change note and that the PEIR was not revised or updated. Norfolk County Council likewise concluded that the

changes did not resolve the substantive strategic and technical concerns it had raised during the statutory consultation.

The changes were not confined to minor micro-siting or drafting corrections. They included selection of the final application location for the proposed National Grid substation, abandonment of an alternative connection site, replacement of a 132 kV project substation with a substantially larger 400 kV installation, taller electrical infrastructure, additional solar development, extensions to the Order Limits and revised construction and AIL arrangements.

4.3.1 Selection of the Site 1B National Grid substation

The PEIR presented two potential locations for the new National Grid substation and point of connection near Great Moulton.

The first option was south of Hundred Lane, close to the BESS and other project electrical infrastructure. The second was within Sub-Site 1B, immediately to the north-east and crossed by the existing 400 kV overhead line. The Applicant's ES Chapter 5 confirms that both options were refined and presented at statutory consultation.

The targeted consultation then confirmed that the Applicant would pursue the Site 1B option and abandon the alternative to the south. South Norfolk Council records this as one of the principal post-consultation changes. Norfolk County Council confirms that the southern option had been favoured by the County Council because it was farther from Great Moulton and would consolidate the BESS, project substation and transmission infrastructure in one area, reducing wider visual effects and construction disturbance. The Applicant instead selected the Site 1B location closer to the village.

The Applicant's final alternatives chapter explains that the southern option was affected by overlap with a consented solar development and was also considered less favourable because of flood-risk and public-right-of-way constraints. Those matters may explain why the Applicant preferred Site 1B, but they do not remove the obligation to reassess the consequences of moving the National Grid substation closer to Great Moulton and its heritage, landscape, residential and aviation receptors.

Norfolk County Council identifies the consequences directly. It records that the selected substation and associated new pylons would be closer to Great Moulton and raises concerns about:

- visual effects on residents and the setting of the village;
- health and safety in the event of a substation fire;
- and physical and mental health effects on residents that had not been investigated adequately.

The change also altered the geographical relationship between the National Grid substation, the existing 400 kV line, the BESS, the project substations, access routes, drainage infrastructure and nearby designated heritage assets. It was therefore capable

of changing the distribution and significance of effects even if the broad categories of effect remained the same.

4.3.2 Abandonment of the southern substation alternative

The abandonment of the southern alternative had consequences beyond the loss of one option from the plans.

The southern site would have consolidated major energy infrastructure near the BESS and project substation. By selecting Site 1B, the Applicant separated the National Grid substation from some of the other principal electrical components and introduced additional overhead-line diversion and pylon works nearer Great Moulton.

The final ES describes the selected solution as a new National Grid substation of up to approximately six hectares, with electrical structures reaching approximately 15 metres and up to four new pylons reaching 61 metres. The environmental comparison therefore needed to address the full final envelope, not simply the fact that one consultation option had been removed.

This was especially important because NGET's subsequent Relevant Representation indicates that the Site 1B substation is not yet a confirmed final network solution. The Applicant therefore selected and assessed a specific location after statutory consultation, while the future network operator has not confirmed that it will be required to use that location or configuration. That issue is addressed in detail below, but it reinforces the importance of a transparent and complete reassessment of the selected design.

4.3.3 Upgrade and relocation of the project substation from 132 kV to 400 kV

The targeted consultation also confirmed that the project substation within Site 1B would be relocated and upgraded from 132 kV to 400 kV. South Norfolk Council records this expressly as a change in both location and size.

Norfolk County Council understood the change to increase the maximum height from approximately 7 metres to approximately 13 metres and to involve a materially larger footprint. It considered that the taller and larger structure would be more visible from Great Moulton and the surrounding countryside and requested clarification of the final footprint.

South Norfolk Council's heritage officer similarly observed that the targeted-consultation material referred to an increase from 7 metres to 13 metres but did not explain whether 13 metres represented a small isolated element or the height of a substantial part of the substation's massing. The Council considered the structure likely to be visible and intrusive in the settings of surrounding heritage assets, including assets within Great Moulton and Moulton Farmhouse, and stated that the heritage impact had not yet been assessed.

The final application widened the envelope further. ES Chapter 4 permits the Site 1B 400 kV project substation to reach approximately 15 metres to the busbars. The progression was therefore:

- approximately 7 metres for the 132 kV design;
- approximately 13 metres in the targeted-consultation material;
- and approximately 15 metres in the final application envelope.

That progression must be traced through every relevant assessment. The Applicant should identify whether the final landscape, heritage, aviation, lighting and noise assessments used the 15-metre structure or an earlier 13-metre assumption.

The voltage change was also capable of altering:

- transformer number and dimensions;
- switchgear and busbar configuration;
- foundation depth;
- transformer oil inventory;
- fire and pollution risk;
- operational noise;
- lighting;
- hardstanding;
- drainage;
- AIL requirements;
- and construction methodology.

It was therefore not sufficient to treat the change merely as a revised label or technical refinement.

4.3.4 Taller new 400 kV pylons

The targeted consultation confirmed that the selected Site 1B connection solution would require changes to the existing 400 kV overhead line and new pylons.

Norfolk County Council records that the proposed new tower could reach approximately 61 metres, compared with the existing towers along the route, which were understood to be approximately 53 metres. It considered that the change raised further landscape and visual concerns and reiterated its earlier preference for avoiding additional pylons.

The final ES authorises up to four new pylons reaching 61 metres, together with overhead-line diversion and temporary pylon works.

The increase was capable of altering:

- long-distance landscape views;
- the setting of Great Moulton and nearby heritage assets;
- aviation safeguarding and visibility;
- construction access and crane requirements;

- foundation works;
- ecological effects;
- and cumulative effects with existing and proposed transmission infrastructure.

The final assessment should therefore demonstrate that the full number, location and 61-metre maximum height were assessed, rather than relying on the scale of the existing pylons or an earlier indicative design.

4.3.5 Additional solar panels at Site 7D

The targeted consultation added solar panels within part of Site 7D.

South Norfolk Council records the additional panels as a specific post-consultation change. Norfolk County Council describes an extension of approximately 4.85 hectares and states that, although limited when viewed alone, it adds to an already extensive solar development and must be included in cumulative landscape and visual assessment.

The County Council's LLFA also records that Site 7D lies at the head of a catchment associated with a natural flood-management scheme at Saxlingham. It considered the catchment sensitive and required clear evidence that the additional panels would not increase flood risk.

South Norfolk Council's heritage officer considered that additional panels could be visible from the upper storeys of designated heritage assets within Saxlingham Green Conservation Area and noted that no details of possible mitigation had been supplied.

The change was therefore capable of affecting:

- landscape character and visual receptors;
- the setting of Saxlingham Green Conservation Area and listed buildings;
- surface-water runoff and downstream flood risk;
- soil and agricultural land;
- ecology and BNG calculations;
- construction access;
- and the cumulative extent of solar industrialisation.

The relevant question was not simply whether 4.85 hectares represented a small percentage of the overall Scheme. It was whether adding panels at that particular location changed effects on sensitive receptors.

4.3.6 Additional land for overhead-line and grid connection works

The targeted consultation added land adjacent to and north-east of Site 1 and to the south-west of Site 1 for works connecting the proposed National Grid substation to the existing overhead transmission line.

Those additions were associated with major grid works rather than incidental landscaping. They potentially enabled:

- pylon construction and replacement;
- overhead-line diversion;
- crane and plant access;
- temporary compounds;
- conductor-stringing areas;
- foundations;
- vegetation removal;
- and permanent operational access.

Norfolk County Council considered that even relatively small additional parcels should be assessed fully where they might accommodate above-ground infrastructure or intensify construction effects.

The added land also reinforces the need for a clear boundary between the Applicant's works and NGET's works. The final application must identify which added parcels are required permanently, which are temporary, what works may occur on each, and whether the associated compulsory powers remain necessary in light of NGET's subsequent position on the connection solution.

4.3.7 Additional land for AILs, visibility splays and highway alterations

The Applicant also expanded the Scheme boundary at numerous locations to accommodate:

- updated visibility splays;
- AIL movements;
- temporary highway alterations;
- temporary removal of street furniture;
- vegetation removal;
- and revised access arrangements.

These changes responded to the practical difficulty of transporting large transformers and other electrical equipment through the rural highway network. They were not environmentally neutral.

South Norfolk Council's landscape officer objected in principle to the removal of mature trees merely to meet temporary construction needs and identified particular concern where added areas lay within or adjacent to the conservation areas of Saxlingham Green, Saxlingham Nethergate and Long Stratton. The Council also noted that the consultation material did not always distinguish temporary vegetation clearance from permanent operational access.

Its heritage officer identified a long section of proposed highway alteration through Saxlingham Nethergate and Saxlingham Green Conservation Areas. The officer observed that grass verges, vegetation and street furniture contribute to the character

and appearance of those areas and that the proposed works were therefore capable of affecting the designated heritage assets.

Norfolk County Council's LLFA found that several added areas lacked sufficient information to determine whether new impermeable surfaces or drainage works would be required. It also identified outdated mapping at areas 8 and 9 because the operational Long Stratton Bypass was not shown or considered.

The post-consultation highway changes were therefore capable of affecting:

- rural lane character;
- conservation areas;
- trees and hedgerows;
- roadside habitats;
- surface-water runoff;
- land take;
- highway safety;
- construction noise and vibration;
- and the accuracy of the baseline mapping.

4.3.8 Changes to construction traffic and AIL routes

The targeted-consultation material also revised the construction traffic strategy. South Norfolk Council records that the changes were said to reflect stakeholder feedback, design evolution, local road constraints and an intention to internalise more construction traffic within the Scheme.

However, the relevant highway authorities did not regard the strategy as settled.

Norfolk County Council's highway authority considered the proposed access strategy unacceptable and stated that construction traffic should generally enter from B-class roads and use internal haul routes. It rejected or questioned a number of routes and access points and required further highway-boundary information, crossing designs and safety audits.

National Highways subsequently stated that the strategic AIL routes had not been determined and that an acceptable routeing strategy should be established in principle before the DCO was decided.

This evidence demonstrates that the route changes were not merely refinements within a settled transport envelope. The final means of delivering the Scheme's major transformers, substations, battery equipment and grid components remained unresolved.

4.3.9 The Applicant's decision not to revise the PEIR

The central procedural and evidential issue is the Applicant's treatment of the changes.

South Norfolk Council records the Applicant's position that the additional areas and activities had been reviewed as part of the environmental assessment and did not change the likely significant effects reported in the PEIR. On that basis, the Applicant made no revisions or updates to the PEIR in support of the targeted consultation.

The Council rejected that approach. It considered that updated information should have been supplied once the Applicant had:

- selected the Site 1B National Grid substation;
- abandoned the southern option;
- and confirmed the upgrade of the Site 1B project substation from 132 kV to 400 kV.

The Council also stated that the 20-page change note provided limited information and that its earlier statutory-consultation concerns remained unaddressed.

Norfolk County Council reached the same overall conclusion. It stated that the targeted changes did not address the substantive matters raised during the PEIR consultation and that the revised substation location and scale created additional concerns requiring further investigation and mitigation.

4.3.10 A general assertion of unchanged significance was insufficient

The Applicant's conclusion that the changes did not alter likely significant effects is itself an environmental conclusion. It required a transparent evidential basis.

A development change may introduce no new category of effect but still change:

- the receptor affected;
- the magnitude of the effect;
- the geographical extent;
- the duration;
- the interaction with other effects;
- or whether the effect crosses the threshold of significance.

For example:

- moving the National Grid substation may not create a new category called 'landscape effect', but it may materially increase the effect on Great Moulton;
- increasing a substation from 7 metres to 13 metres, and ultimately 15 metres, may change heritage and visual effects even though substations were already part of the Scheme;
- adding panels to Site 7D may alter flood risk or conservation-area views even though the total project area changes only modestly;
- and altering AIL routes may affect different conservation areas, bridges, hedgerows and residential receptors.

The appropriate response was therefore a change-specific assessment showing:

1. the PEIR design assumption;

2. the revised design;
3. the affected receptors;
4. the original effect;
5. the revised effect;
6. any changed mitigation;
7. and the reason why the significance conclusion remained unchanged or changed.

No equivalent topic-by-topic comparison was supplied with the targeted consultation.

4.3.11 Landscape and visual consequences

The selected Site 1B National Grid substation, taller project substation, 61-metre pylons, additional Site 7D panels and expanded highway works were all capable of increasing landscape and visual effects.

The principal concerns included:

- closer proximity of major electrical infrastructure to Great Moulton;
- a larger and taller project substation;
- additional vertical infrastructure;
- additional panel coverage;
- removal of roadside vegetation;
- widening or alteration of rural lanes;
- and cumulative interaction with other energy infrastructure.

Norfolk County Council repeatedly sought further details of design, scale and mitigation and encouraged the Applicant to consider an alternative National Grid substation location farther from Great Moulton. South Norfolk Council likewise considered that the changes required updated landscape and visual information.

4.3.12 Heritage consequences

The changes were capable of affecting the settings of heritage assets at Great Moulton, Saxlingham Green, Saxlingham Nethergate and elsewhere.

South Norfolk Council identified:

- closer proximity of the Site 1B substation to designated heritage assets at Great Moulton;
- potential intrusion from the taller 400 kV project substation;
- possible views of the additional Site 7D panels from designated assets;
- and highway alterations affecting the character and appearance of conservation areas.

The Council expressly stated that the effect of the enlarged substation had not yet been assessed by its heritage consultants. That alone demonstrates why an unsupported conclusion of unchanged significance was inadequate.

4.3.13 Noise and residential amenity

South Norfolk Council's Environmental Management Officer considered that confirmation of the BESS and substation locations required the noise assessment to be updated. The officer also required further air-quality and contaminated-land information and warned that the BESS and substation could materially affect amenity and potentially constitute a statutory nuisance unless effective mitigation were secured.

The selected substation location and larger electrical equipment could change:

- the distance to noise-sensitive receptors;
- the number and type of transformers;
- cooling and ventilation requirements;
- tonal characteristics;
- night-time background comparisons;
- and the feasibility of acoustic mitigation.

Those matters required updated modelling based on the final equipment and locations.

4.3.14 Fire, emergency response and public health

Norfolk County Council's Fire and Rescue Service raised concerns about the proximity of the Site 1B National Grid substation and upgraded project substation to residents at Great Moulton. It identified issues relating to:

- emergency vehicle access;
- cordon control;
- and protection of residents from smoke plumes.

The County Council's public-health evidence also considered that the revised location and scale increased the potential for disturbance and adverse physical and mental-health effects. It sought a dedicated assessment, particularly for vulnerable people and those sensitive to noise and environmental change.

Those concerns could not be answered by stating generally that substations had already formed part of the PEIR scheme. Their final proximity, scale and configuration were the relevant variables.

4.3.15 Drainage and flood-risk consequences

The larger substations and added highway works potentially increased impermeable area and displaced existing surface-water storage.

Norfolk County Council's LLFA stated that both the National Grid substation and the 400 kV project substation would require surface-water management because of their substantial impermeable areas. It found insufficient information to determine whether

adequate space had been reserved for attenuation and noted existing areas of surface-water flood risk.

The LLFA also identified:

- flood-risk sensitivity at Site 7D;
- potential runoff from road widening and internal access tracks;
- and insufficient information for several additional land parcels.

The changes therefore required updated drainage plans and calculations, not merely confirmation that drainage would be dealt with later.

4.3.16 Aviation safeguarding consequences

The taller substation and pylon infrastructure, additional panels and revised Site 1 configuration were also capable of altering effects on Tibenham Aerodrome.

Norfolk Gliding Club and the General Aviation Awareness Council state that the Applicant did not undertake meaningful early engagement with the aerodrome operator and had not provided an adequate site-specific operational assessment or mitigation. Site 1 lies on or close to the extended runway centreline and within land said to be relevant to emergency aviation operations.

The final design changes therefore required consideration of:

- the maximum panel extent;
- panel height and movement;
- reflective effects;
- pylon height;
- substation structures;
- emergency landing availability;
- and cumulative effects with other solar and BESS developments.

The aviation consequences are addressed fully in Chapter 18, but they also demonstrate why design changes at Site 1 could not be treated as environmentally neutral.

4.3.17 Archaeological and ecological consequences

Norfolk County Council's Historic Environment Team considered that the proposed changes increased potential impacts on below-ground archaeology. It also recorded that remains of regional significance had already been identified and that substantial archaeological mitigation would be required.

The Natural Environment Team required the additional areas and vegetation removal to be incorporated into the environmental assessment and BNG metric. It also sought assessment of effects on roadside nature reserves and cumulative assessment with the nearby Tasway scheme and BESS proposals.

The changes could therefore alter both the quantity of habitat affected and the reliability of the proposed biodiversity calculations.

4.3.18 Cumulative effects

The design evolution occurred within an area already subject to multiple proposed and consented energy and infrastructure schemes.

South Norfolk Council identified potential cumulative effects with:

- Tasway Energy Park;
- Norwich to Tilbury;
- consented and proposed TCPA energy schemes;
- highway infrastructure;
- and offshore-wind connection works.

It considered that overlapping construction periods could increase landscape, heritage, ecological, community and economic effects.

Norfolk County Council similarly remains concerned about cumulative effects with Tasway, Norwich to Tilbury, Hornsea Three and other solar schemes.

A changed substation, taller pylons, added panels and revised construction routes could alter the Scheme's interaction with those projects. The cumulative assessment therefore needed to be checked against the final design and updated programme.

4.3.19 Conclusion

The post-statutory-consultation changes were material to the physical description and environmental consequences of the Scheme. They included:

- selection of the Site 1B National Grid substation;
- abandonment of the southern alternative;
- relocation and upgrading of the Site 1B project substation from 132 kV to 400 kV;
- an increase from approximately 7 metres to 13 metres at targeted consultation and ultimately 15 metres in the final ES;
- up to four new pylons reaching approximately 61 metres;
- additional solar panels at Site 7D;
- additional land for grid connection works;
- additional land for AILs, visibility splays and vegetation removal;
- and changes to the construction traffic strategy.

Those changes were capable of altering landscape, heritage, noise, fire, public-health, drainage, aviation, traffic, ecology, archaeology, residential-amenity and cumulative effects.

The Applicant's general assertion that the changes did not alter likely significant effects was not a substitute for topic-specific reassessment. The targeted consultation should

have been supported by a transparent comparison showing the effects of the PEIR design against those of the revised design.

The adequacy and legal consequences of the targeted consultation are addressed in the procedural chapter. For present purposes, the important Scheme Description point is that the final application contains materially changed infrastructure whose environmental consequences must be demonstrated by reference to the final submitted envelope, not assumed to be unchanged from the PEIR.

The Applicant should be required to provide a consolidated design-evolution schedule identifying, for every material change:

- the PEIR parameter;
- the targeted-consultation parameter;
- the final application parameter;
- the affected environmental chapters;
- whether those chapters were updated;
- the mitigation added or changed;
- and the Requirement securing the final design.

Unless that audit is completed, the Examining Authority cannot safely conclude that the final development described in ES Chapter 4 has been assessed consistently across the Environmental Statement.

4.4 Solar and BESS are not aligned as one confirmed connection project

The Applicant presents East Pye Solar as an integrated solar-and-storage project. The Scheme Description includes both the solar photovoltaic generating station and a substantial Battery Energy Storage System, while the alternatives and need case rely upon the benefits of co-locating generation and storage. The BESS is described as enabling electricity generated by the solar arrays to be stored and released at times of higher demand, while also providing balancing and resilience services to the transmission system. ES Chapter 4 further states that the BESS may charge either from the solar generating station or directly from the grid. (nsip-documents.planninginspectorate.gov.uk)

The project is therefore promoted as more than a solar farm accompanied by optional ancillary equipment. Storage is relied upon as part of the Scheme's operational rationale and as a means of addressing intermittency, shifting output and supporting the electricity system. ES Chapter 5 describes co-located solar PV and BESS as the Applicant's preferred generating solution and refers to the BESS as supporting grid resilience and stability. (nsip-documents.planninginspectorate.gov.uk)

However, the connection status of the two principal components is not aligned. NGET's Relevant Representation records that the solar generating component has secured Gate 2 status, while the BESS remains at Gate 1. The application therefore combines,

within one DCO, a solar generating station whose connection position has progressed through the Gate 2 process and a storage component whose connection position has not.

That distinction is material because Gate 2 and Gate 1 do not represent the same degree of connection certainty. The solar and BESS components cannot simply be treated as sharing a common confirmed delivery status merely because they are contained within the same application, occupy adjoining land and are described as one project.

4.4.1 Physical co-location does not establish co-deliverability

East Pye is promoted as an integrated solar-plus-storage Scheme. The solar generating station and 500 MW BESS are physically co-located within one DCO and the Applicant attributes system flexibility, balancing, storage and other benefits to that combination.

The connection position is, however, divided. The solar element has progressed to Gate 2, whereas the BESS remains at Gate 1. The fact that both Works appear within the same Order Limits does not establish that they will become operational together, share the same connection timetable or deliver the benefits attributed to an integrated generation-and-storage project.

The Examination should therefore distinguish between **physical co-location** and **electrical and temporal co-deliverability**. The planning and environmental case must be tested against what the DCO permits if the solar element becomes operational substantially before the BESS, if the BESS is reduced or delayed, or if Work No. 2 never progresses to connection.

4.4.2 The BESS has no demonstrated Gate 2 route on the evidence presently available.

The BESS remains at Gate 1. No presently demonstrated project-specific route has been identified by which the East Pye BESS satisfies the June 2026 Gate 2 Strategic Alignment Criteria.

East Pye's 2026 DCO submission date means that it does not satisfy the earlier planning-submission dates associated with the principal planning-based protection routes available to projects which progressed through connections reform.

The Applicant should therefore state expressly which NESO strategic-alignment or protection criterion it relies upon for Work No. 2; whether any qualifying support or procurement arrangement is already held; whether NESO or NGET has provided any project-specific indication that the BESS is expected to obtain Gate 2; and what connection date is assumed in the environmental and benefits case.

4.4.3 The draft DCO must be tested for severability

The critical legal question is what combinations of development the draft DCO would permit.

The Applicant should be required to identify whether the Order allows:

- the solar generating station to be constructed and operated without the BESS;
- the BESS to be delayed for a substantial or indefinite period;
- only part of the BESS compound to be constructed;
- a materially reduced storage capacity;
- the BESS compound and foundations to be constructed before a connection is secured;
- battery equipment to be installed but not energised;
- the BESS to be omitted permanently;
- or the BESS to operate later under a materially different technology and capacity.

The answer cannot be inferred merely from the fact that Work No. 2 appears in Schedule 1. The Applicant must identify the commencement, phasing and dependency provisions that make construction of the BESS mandatory, optional or severable.

If Work No. 1 can be commenced and brought into operation independently of Work No. 2, the DCO is capable of authorising a solar-only scheme. If the BESS may be delayed indefinitely, the same practical result follows for an unknown part of the 60-year operating period. If only a reduced part of the BESS must be built, the benefits and effects of the assessed project may differ materially from those relied upon in the application.

4.4.4 Solar-only development

A solar-only implementation scenario is plainly realistic if the solar component has Gate 2 status and the BESS remains at Gate 1.

The Applicant must therefore explain whether the Environmental Statement and need case assess:

- solar construction without BESS construction;
- operation of the solar farm without storage;
- altered export patterns;
- reduced balancing and time-shifting benefits;
- changed use of the project substations and cables;
- changed construction traffic and land take;
- reduced fire and drainage effects at the BESS site;
- and the consequences for mitigation designed on the assumption that the BESS would be delivered.

An assessment of the full project does not automatically assess the solar-only subset. Some effects may be lower, but others may be different rather than simply reduced. The

operational profile, claimed system benefits, connection arrangements, construction sequence and justification for particular works may all change.

The Secretary of State should not be invited to place weight upon storage benefits unless delivery of the storage component is secured or the solar-only scenario is assessed transparently.

4.4.5 Delayed BESS construction

The DCO may also permit the BESS to be constructed later than the solar component.

A delayed BESS could produce:

- a separate major construction phase;
- repeated mobilisation of compounds and haul routes;
- later HGV and AIL movements;
- renewed noise and disturbance;
- further soil and ecological impacts;
- and a prolonged period during which the project operates without the storage benefits relied upon in the application.

The Applicant should identify:

- the latest permitted commencement date for Work No. 2;
- whether Work No. 2 may commence after the solar farm is operational;
- whether temporary construction compounds may be re-established;
- whether traffic limits apply separately to delayed BESS construction;
- and whether mitigation and baseline surveys must be updated before that later phase.

If no longstop applies, the Order may authorise a solar farm now and leave the BESS as an unimplemented option for a substantial part of the project life.

4.4.5A Claimed co-location benefits must be tested against timing

The benefits attributed to East Pye should be disaggregated rather than assumed to arise from one integrated project. The solar-generation benefit is available if the solar element proceeds, but BESS flexibility and balancing benefits depend upon the storage component obtaining a connection and becoming operational. Claimed co-location benefits require both elements to operate on compatible timescales. Any claimed reduction in curtailment likewise requires evidence that the BESS will actually be connected when needed and is capable of operating in the manner assumed.

The Applicant should therefore assess at least the following reasonable implementation cases:

- solar and BESS commissioning contemporaneously;
- solar operating materially before the BESS;
- materially delayed BESS;

- reduced-capacity or differently configured BESS; and
- solar operating for all or a substantial part of its life without Work No. 2.

For each case the Applicant should identify which benefits remain, which are deferred or disappear, whether the electrical architecture changes and whether the EIA remains within the assessed envelope.

4.4.6 Partial or reduced BESS

The application does not clearly define the minimum storage capacity that must be delivered.

The Applicant should therefore explain whether it could construct:

- only part of the BESS compound;
- fewer enclosures than assumed in the environmental assessment;
- a lower MW capacity;
- a shorter-duration system;
- fewer transformers and inverters;
- or only sufficient equipment to preserve the appearance of compliance with Work No. 2.

A materially reduced BESS could affect:

- the scale of claimed grid-support benefits;
- the extent to which solar output can be time-shifted;
- the operational justification for grid charging;
- construction and replacement traffic;
- drainage and firewater requirements;
- noise;
- and the economic relationship between the solar and storage components.

The Applicant should state whether any minimum BESS capacity is secured and, if not, why the decision-maker should treat the project as a 500 MW-class solar-and-storage scheme rather than a solar scheme accompanied by an undefined optional storage facility.

4.4.7 Different battery technology at initial construction or replacement

The Scheme retains flexibility over battery technology and anticipates that the BESS may be replaced up to five times over the 60-year operating period. (nsip-documents.planninginspectorate.gov.uk)

That creates two related uncertainties.

First, the initial BESS may use a chemistry or enclosure type not specifically identified in the application. Secondly, later replacement cycles may introduce materially different technology.

A different battery system may alter:

- energy density;
- thermal-runaway behaviour;
- firewater demand;
- toxic emissions;
- spacing requirements;
- cooling plant;
- operational noise;
- transformer and inverter requirements;
- equipment weight;
- drainage;
- waste classification;
- and emergency-response procedures.

The Applicant should therefore identify the technology envelope actually assessed and the limits applying to replacement equipment.

A general requirement that replacement equipment should have effects 'no worse than' those assessed is insufficient unless the DCO also identifies the measurable standards against which that judgment will be made. Those standards should include, at minimum:

- maximum stored energy;
- fire propagation characteristics;
- maximum sound-power level;
- maximum heat rejection;
- pollutant inventory;
- maximum enclosure dimensions;
- firewater requirement;
- and maximum traffic and AIL demand.

4.4.8 Construction of BESS infrastructure without a confirmed connection

The DCO may permit the Applicant to construct the BESS compound, foundations, drainage, fencing, access and project-substation infrastructure before the BESS has a confirmed Gate 2 connection position.

That creates the possibility of substantial infrastructure being built but never used for its intended purpose.

The Applicant should explain:

- whether commencement of Work No. 2 is conditional upon an accepted Gate 2 offer or equivalent connection entitlement;
- whether construction may proceed while the BESS remains Gate 1;
- whether the project substation can be oversized for a BESS that is never connected;
- whether land may be compulsorily acquired for unconfirmed BESS works;
- and what restoration obligations would apply if the connection is not obtained.

The need for this control is strengthened by the Applicant's own description of the BESS as capable of charging directly from the grid. The BESS is therefore not merely passive equipment ancillary to the solar arrays. It requires a defined import and export entitlement and an operational relationship with the transmission system.

4.4.9 Environmental consequences of the connection mismatch

The difference in connection status affects several parts of the Environmental Statement.

Construction and phasing

If the BESS is delayed, the assessed 24-month construction programme may not represent the full construction period. A later BESS phase may create a second programme of:

- piling;
- concrete works;
- equipment deliveries;
- cable installation;
- commissioning;
- and traffic.

Transport and AILs

BESS transformers, containers and auxiliary plant may require substantial HGV and AIL movements. If delivery occurs later, the route, highway condition, cumulative-project context and receptor baseline may differ from those assessed.

Noise

The operational noise assessment depends on the number, type and location of:

- battery cooling units;
- inverters;
- transformers;
- and auxiliary plant.

A reduced, delayed or technologically different BESS may not correspond with the assessed source inventory.

Fire and major accidents

Firewater containment, emergency access and plume assumptions depend on:

- chemistry;
- enclosure number;
- stored energy;

- spacing;
- and fire-suppression design.

Those parameters cannot be treated as immaterial to connection status because a later Gate 2 offer may relate to a materially different capacity or technology.

Drainage and water environment

The BESS compound, hardstanding, foundations and firewater systems are a substantial part of the drainage design. Partial or delayed implementation raises questions about whether temporary or permanent drainage would be constructed in advance and whether it would remain unused.

Landscape and land use

If the BESS is omitted but the compound, substation or access remains, the development may produce environmental harm without delivering the storage benefits relied upon to justify it.

Need and benefits

If the project operates as solar-only development, the claimed benefits associated with:

- time-shifting generation;
- reducing curtailment;
- grid balancing;
- system resilience;
- and dispatchability

may be reduced or absent.

4.4.10 The planning balance must not assume benefits which are not demonstrated as deliverable

The Applicant's alternatives and Scheme Description documents treat co-located storage as a positive and integral feature. The decision-maker may therefore be invited to give weight to the ability of the BESS to store renewable generation, release it at times of demand and support the grid.

Those benefits should be treated with caution unless the Applicant demonstrates:

1. that the BESS has a deliverable connection route;
2. that the DCO secures its construction;
3. that a minimum storage capacity and duration are fixed;
4. that it will be available within a defined period;
5. and that the assessed BESS is the BESS capable of obtaining connection.

Otherwise, there is a mismatch between the project whose benefits are advanced and the development the Order may actually deliver.

The Secretary of State should not assess the benefits of a fully integrated solar-and-storage project while granting an Order capable of delivering a materially different solar-only scheme without expressly examining that scenario.

4.4.11 Required works-severability schedule

The Applicant should provide a works-severability schedule setting out, for every principal Work No.:

Matter	Required information
Independent commencement	Whether the Work may commence without the other principal components
Independent operation	Whether the Work may operate independently
Dependency	Which other Work Nos. are legally and technically required
Connection status	Gate status and connection entitlement
Longstop	Latest date by which the Work must be commenced or completed
Minimum implementation	Minimum capacity or physical extent required
Omission	Whether the Work may be omitted permanently
Consequences	Effect of omission on need, benefits, mitigation and compulsory acquisition

The schedule should address Work No. 1, Work No. 2, Work Nos. 3A and 3B, Work No. 4 and Work No. 6 in particular.

Associated-development relationship

Materially asynchronous implementation also bears upon the Applicant's case that the BESS constitutes associated development to the solar NSIP. The fact that Work No. 2 is physically close to the generating station does not by itself answer the functional question. If the solar generating station can be constructed and operated for a material period without the BESS, the Applicant should explain the operational relationship which nevertheless justifies consenting the whole 500 MW BESS as associated development to this NSIP.

BEPS does not contend that asynchronous commissioning necessarily prevents the BESS from constituting associated development. The point is that the functional

relationship relied upon should be demonstrated rather than assumed from common ownership, proximity or shared infrastructure.

4.4.12 Required connection-status schedule

The Applicant should also provide a connection-status schedule identifying:

- the Gate status of the solar component;
- the Gate status of the BESS;
- the capacity assigned to each;
- the relevant connection agreement or offer;
- whether import and export are both authorised;
- the connection date;
- conditions precedent;
- works required from the Applicant;
- works required from NGET;
- and the consequences if the BESS does not progress to Gate 2.

This should be supported by the relevant connection documents, subject only to justified redaction of commercially sensitive material.

4.4.13 Required technical and legal confirmation

The Applicant should confirm expressly:

1. whether the solar farm may lawfully operate without the BESS;
2. whether the BESS may lawfully charge from the grid under the present connection arrangements;
3. whether the BESS may export independently of contemporaneous solar generation;
4. whether the present connection rights include the BESS capacity assumed in the application;
5. whether Work No. 2 may commence while the BESS remains Gate 1;
6. whether the BESS is subject to a separate future connection application;
7. and whether any material change to BESS capacity or technology would require further consent.

The Applicant should also identify which claimed benefits remain if:

- the BESS is not constructed;
- the BESS is delayed;
- the BESS is materially reduced;
- or the BESS receives no connection entitlement.

4.4.14 Required DCO controls

Unless the Applicant demonstrates that the solar and BESS components form one confirmed and deliverable connection project, the DCO should include controls providing that:

- Work No. 2 may not commence until the BESS has a confirmed connection entitlement;
- the maximum and minimum MW and MWh capacity are fixed;
- the permitted battery technology envelope is defined;
- grid charging and independent operation are expressly controlled;
- delayed BESS construction is subject to updated environmental surveys and management plans;
- replacement technology must remain within measurable fire, noise, pollution and traffic limits;
- land and compulsory powers relating solely to the BESS may not be exercised unless its delivery is confirmed;
- and solar-only implementation is either prohibited or expressly assessed and controlled.

4.4.15 Conclusion

The application presents East Pye Solar as an integrated solar-and-storage project and relies upon the operational and system benefits of co-located BESS. Yet NGET's Relevant Representation indicates that the solar component has Gate 2 status while the BESS remains Gate 1. The two principal components therefore do not presently share the same connection certainty.

The draft DCO must be examined to determine whether it permits:

- solar without BESS;
- delayed BESS;
- partial BESS;
- materially reduced storage;
- construction of unconnected BESS infrastructure;
- replacement by materially different technology;
- or permanent non-delivery of the storage component.

Each is a realistic implementation scenario requiring explicit assessment.

An environmental assessment of the full solar-and-storage Scheme does not automatically assess a solar-only development or a project in which storage is delayed for years. Nor should the need case receive the benefits of storage unless delivery of a defined storage component is secured.

The Applicant should therefore provide a complete works-severability schedule, a connection-status schedule, confirmation of the legal and technical operating relationship between the solar farm and BESS, and a transparent account of which benefits survive if the BESS is not delivered.

The decision-maker should not assess the benefits of a fully integrated solar-and-storage project while granting an Order capable of delivering a materially different solar-only scheme without expressly examining and controlling that outcome.

4.5 The proposed National Grid substation is not a confirmed connection solution

The proposed National Grid substation at Site 1B is one of the largest, most permanent and most consequential components of East Pye Solar. The application seeks development consent and compulsory powers for a specific transmission connection solution comprising a new National Grid substation, extensive associated works, modification and diversion of the existing 400 kV overhead transmission line and up to four new pylons.

The Scheme Description treats that infrastructure as integral to East Pye. The fourteen Cable Route Corridors are designed to converge upon Site 1B; Work No. 4 authorises works in connection with the National Grid substation; and Work No. 5 authorises the associated transmission-line works. The alternatives assessment similarly proceeds on the basis that a new substation adjacent to the existing Bramford–Norwich 400 kV line is required.

That apparent certainty is not reflected in NGET's own Relevant Representation.

NGET does not merely reserve detailed engineering choices. Its evidence indicates that the final size, design and location of the point-of-connection solution remain subject to the wider connections-reform process, other Gate 2 projects, technical network requirements and unresolved commercial arrangements. Most significantly, NGET states that obtaining DCO consent for the proposed Site 1B substation would not oblige NGET to accommodate East Pye Solar through that substation.

The application therefore seeks consent, land and compulsory powers for a substantial and potentially permanent item of transmission infrastructure before the prospective network owner and operator has confirmed that the authorised solution will be required or used.

4.5.1 The infrastructure for which consent is sought

The scale of the proposed works is material to that uncertainty.

The application authorises a National Grid substation compound of up to approximately six hectares, with access, drainage, landscaping, biodiversity works and temporary construction areas. Foundations may extend to approximately 12 metres below ground, electrical structures and busbars may reach approximately 15 metres in height, and the associated overhead-line works may require up to four new pylons reaching approximately 61 metres.

Works Nos. 4 and 5 also permit modification, realignment, dismantling and reconstruction of existing transmission infrastructure.

These are not incidental connection works. They are major transmission assets with their own permanent land take, landscape and visual effects, drainage requirements, foundations, access, construction traffic, aviation implications, ecological effects and compulsory-acquisition consequences. The Applicant also accepts that the National Grid substation and Grid Connection Infrastructure may remain after the 60-year solar generating station has been decommissioned.

The distinction between temporary generating infrastructure and potentially permanent transmission infrastructure therefore requires particular scrutiny. A permanent network asset should not be authorised simply because it is presently convenient to the connection strategy of a temporary generating project. Its enduring necessity must itself be demonstrated.

4.5.2 NGET has not confirmed that Site 1B is the final solution

The Applicant's environmental and alternatives cases proceed from the premise that Site 1B is the selected connection solution. NGET's evidence materially qualifies that premise.

NGET states that the final solution remains dependent upon wider regulatory, commercial and network considerations and may be affected by other projects seeking connection in the same part of the transmission system. Those considerations may alter the size, number of bays, electrical configuration, layout, location and associated transmission works ultimately required.

The distinction is therefore not between an indicative and a detailed version of the same substation. It is between the specific Site 1B solution assessed in this application and the transmission solution which NGET may ultimately determine is appropriate.

That distinction is reinforced by the anticipated replacement connection agreement. The Applicant's site-selection case appears to have proceeded on the basis that its existing connection arrangements required it to identify the substation site, provide the necessary land and secure consent. NGET now indicates that the replacement agreement is not expected to require the Applicant to secure the land or consent for the National Grid substation.

That is a material change in the premise upon which Site 1B was selected and upon which compulsory powers are sought.

The Applicant should therefore explain precisely what obligations remain under the existing agreement, what will change under the replacement agreement, who will become responsible for securing the transmission land and consent, and why Works Nos. 4 and 5 remain necessary components of this DCO if that original contractual obligation is removed.

Most importantly, NGET states that DCO consent for the proposed substation:

“does not trigger or constitute any obligation for NGET to accommodate any connection to the national grid at such a substation.”

That statement has direct consequences for the Examination. Consent would provide legal authority for the infrastructure but would not secure NGET’s commitment to construct, adopt, operate or use it.

The ExA should therefore distinguish clearly between an authorised connection option and a confirmed connection solution.

4.5.3 Strategic network planning and North Anglia Node A

The strategic efficiency of constructing a new project-specific National Grid substation on the existing 400 kV transmission line also requires examination in the context of the emerging transmission network in South Norfolk.

The proposed Norwich–Tilbury reinforcement includes North Anglia Node A, and multiple generation and storage projects are identified in the transmission connection pipeline as connecting at that future node. North Anglia Node A therefore appears to be developing as a strategic multi-user connection point associated with the new transmission network.

That emerging network architecture raises an obvious question about the long-term role of Site 1B.

East Pye is promoted as a 60-year solar generating project, whereas the National Grid infrastructure authorised by the DCO may remain permanently. At broadly the same time, National Grid is progressing a separate strategic transmission reinforcement through South Norfolk incorporating a further 400 kV connection node intended to accommodate multiple projects.

BEPS does not suggest that the existence of North Anglia Node A proves that Site 1B is technically unnecessary. Different substations may serve different electrical functions and connection dates. The point is that the strategic alternative now exists and must be addressed.

The Applicant and NGET should therefore explain whether connection through North Anglia Node A, or another part of the future Norwich–Tilbury network, was considered for East Pye; whether such an option is technically possible; what programme, network-security or cost factors rule it out; and why constructing a further permanent National Grid substation on the existing transmission line remains the most economic and efficient long-term network solution.

That question assumes greater importance because NGET has not yet confirmed Site 1B as the final point of connection. The ExA should not be invited to authorise permanent project-specific transmission infrastructure without understanding its

relationship to the strategic network that is simultaneously being developed in the same part of South Norfolk.

4.5.4 Consequences for Scheme definition and deliverability

The uncertainty over the connection solution affects the identity of the authorised development.

On the Applicant's case, Works Nos. 4 and 5 appear essential. All fourteen Cable Route Corridors are directed towards Site 1B and the generating station requires a transmission connection. Yet NGET's position suggests that Site 1B may represent one possible solution rather than the finally determined one.

The Applicant should therefore state unequivocally whether Works Nos. 4 and 5 are mandatory components of East Pye or severable connection options.

If they are essential, there must be sufficient confidence before consent that they can and will be delivered.

If they are optional, the Applicant must identify the alternative means by which the generating station could operate, demonstrate that those alternatives have been environmentally assessed and explain how the DCO prevents partial implementation from producing a materially different project.

The same issue arises in relation to sequencing. The DCO should not permit extensive solar, cable or transmission works to proceed on the assumption of a connection solution which NGET subsequently changes.

The Applicant should therefore explain whether the solar generating sites may be substantially constructed before the final point of connection is confirmed; whether Cable Route Corridors may be installed before NGET has committed to Site 1B; whether overhead-line works may begin before the transmission solution has been approved; and what happens if the connection solution changes after those works have been undertaken.

Without appropriate hold points, the DCO could permit substantial stranded infrastructure: cables, foundations, access roads, pylon works or even the substation itself could be constructed without ultimately forming part of the operational network solution.

That is not merely a commercial risk. It creates potential environmental harm without the public benefit relied upon to justify that harm.

ISH1 has since sharpened these issues through specific action points. The ExA required the Applicant to explain:

- the proposed National Grid substation's capacity and whether it may accommodate other projects;
- the certainty and timing of its delivery as East Pye's point of connection and how that timing would be secured;
- whether future third-party use may create additional cumulative or downstream consequences;
- and to provide an indicative drawing of the substation.

Those questions materially reinforce BEPS's existing objection. The National Grid substation cannot presently be treated simply as a fixed East Pye component whose need, scale, timing and wider network consequences are already exhausted by the ES. The final role of the infrastructure within the wider network is itself now an examination issue.

4.5.5 The assessed envelope cannot accommodate an unknown transmission solution

The Applicant must also demonstrate that the transmission infrastructure ultimately required by NGET will remain within the environmental envelope examined.

The ES presently assesses a defined connection geography: the Site 1B substation, the Cable Route Corridors converging upon it and the associated overhead-line modifications. The maximum parameters include the six-hectare substation area, structures of approximately 15 metres, deep foundations, an eight-metre access track and up to four new pylons reaching approximately 61 metres.

The Applicant should first demonstrate that those maxima were used consistently across landscape, heritage, aviation, transport, ecology, drainage, groundwater, noise and construction assessments. This is particularly important because earlier consultation material referred to a materially smaller substation footprint.

More fundamentally, however, that assessment does not appear to encompass a materially different NGET solution.

If the connections-reform process or other Gate 2 projects require a larger substation, additional bays, further pylons, a different line-entry arrangement or a different geographical location, the resulting effects may differ materially. Those changes could alter landscape and heritage effects, aviation risk, flood and drainage requirements, construction traffic, abnormal-load routes, ecology, land take and compulsory-acquisition requirements.

The Applicant should therefore identify the legal and environmental consequence if the final NGET solution falls outside Works Nos. 4 and 5 or exceeds the assessed parameters. It cannot be assumed that such a change would constitute ordinary detailed design.

Nor should reasonably foreseeable future transmission infrastructure be fragmented from the environmental assessment. If further network works are likely to be required in order for East Pye to operate, the Applicant should identify those works, their likely consent route and programme, and demonstrate that their cumulative effects have been considered.

If the substation is capable of functioning as infrastructure for other projects, the Applicant should distinguish the effects attributable to East Pye from the environmental and land consequences of creating infrastructure with a wider future network role. Conversely, if it is solely required for East Pye, the Applicant and NGET should explain how its delivery is sufficiently certain to support the connection and compulsory-acquisition case.

4.5.6 Compulsory acquisition cannot precede confirmed necessity

The uncertainty over Site 1B is particularly important because the Applicant seeks compulsory powers over land required for the proposed National Grid substation, its access, construction areas, landscaping, drainage, cable interfaces and overhead-line works.

Section 122 requires a compelling case in the public interest for compulsory acquisition. That necessarily requires the Applicant to demonstrate that the land and interest sought are genuinely required for the development authorised.

NGET's evidence weakens that case in three respects.

First, the final location and configuration of the connection solution have not been confirmed.

Secondly, the replacement connection agreement is not expected to require East Pye to secure the substation land or consent.

Thirdly, NGET expressly states that the existence of DCO consent would not oblige it to use the Site 1B substation.

The Applicant must therefore establish afresh why East Pye Solar Limited requires compulsory powers over this particular land.

It should explain whether NGET actually requires East Pye to acquire the land; whether NGET would instead obtain its own interests; whether rights rather than freehold ownership would suffice; whether East Pye would acquire land only to transfer it to NGET; and what happens to the land and powers if Site 1B is not ultimately selected.

Preserving a possible future transmission option is not equivalent to demonstrating that compulsory acquisition is presently necessary.

The DCO should therefore prevent the exercise of compulsory powers for Site 1B until NGET has confirmed in writing that the relevant land and infrastructure are required for the final connection solution. Any land or rights rendered unnecessary by a different solution should cease to be subject to the corresponding powers.

4.5.7 Responsibility, ownership and enforceability

The division of responsibility between the Applicant and NGET also remains insufficiently clear.

The DCO seeks consent for works which NGET may ultimately design, construct, own and operate. The Examination therefore needs to understand who is responsible at each stage for the land, civil engineering, electrical equipment, pylon and overhead-line works, drainage, environmental management, testing, commissioning, operation, maintenance and eventual permanent retention or decommissioning.

This matters because a Requirement imposed upon the Applicant is of limited value if the relevant asset is subsequently transferred to NGET without equivalent continuing obligations.

The position should therefore be recorded in a joint responsibility and ownership matrix identifying, for each material component of Works Nos. 4 and 5:

the design authority; landowner or rights-holder; construction party; operator; body responsible for environmental compliance; body responsible for drainage, access, landscaping and biodiversity measures; emergency responsibility; and long-term responsibility following East Pye's decommissioning.

The DCO should ensure that every relevant environmental obligation transfers with the infrastructure or otherwise continues to bind the body controlling it.

This is particularly important because the transmission infrastructure may remain after the generating station has ceased operating. The application must therefore distinguish clearly between East Pye's restoration obligations and the continuing environmental obligations associated with infrastructure retained permanently by NGET.

4.5.8 Information required during Examination

The remaining uncertainty can be addressed efficiently if the Applicant and NGET provide a consolidated evidential response rather than further isolated statements.

BEPS submits that the ExA should require sufficient information to establish:

- the material terms of the existing connection agreement and proposed replacement agreement insofar as they concern land, consent and delivery responsibility;

- the present Gate 2 position of the solar generating element and the separate Gate status of the BESS;
- the current preferred point of connection;
- whether Site 1B remains NGET's preferred location;
- whether the six-hectare and four-pylon envelope represents the full presently anticipated requirement;
- whether other Gate 2 projects may alter the solution;
- the relationship between Site 1B and North Anglia Node A/the Norwich–Tilbury reinforcement;
- the respective responsibilities of East Pye and NGET;
- the current programme for finalising the connection solution;
- and the point at which NGET expects to be able to confirm the size, location and configuration finally required.

Commercially sensitive pricing does not need to be disclosed. What matters is the factual and contractual basis upon which development consent and compulsory powers are sought.

4.5.9 DCO controls required

Unless the connection solution is finally confirmed during Examination, the Order should contain safeguards preventing uncertainty from being transferred into the post-consent period.

At minimum, commencement of the National Grid substation and associated overhead-line works should be prohibited until NGET has confirmed the final connection solution in writing. Compulsory powers over the Site 1B land should not be exercisable until NGET confirms that the land is required. Cable infrastructure whose sole purpose is to serve Site 1B should not be compulsory purchased or constructed before the connection point is fixed.

Any final NGET design must remain within the environmental parameters assessed. A materially different location, footprint, pylon requirement or transmission configuration should require the appropriate further consent rather than being treated as detailed design.

The Order should also secure the allocation of ownership and environmental responsibility, ensure that permanent drainage, landscape and other mitigation obligations bind the future owner or operator, and require restoration of any connection works commenced but subsequently rendered redundant.

Most fundamentally, the generating station should not be commissioned unless a lawful and technically deliverable transmission connection has been secured.

4.5.10 Conclusion

The application presents the Site 1B National Grid substation as an essential and geographically defined component of East Pye Solar. It seeks consent and compulsory powers for a substantial six-hectare transmission site, deep foundations, associated access and drainage, overhead-line modification and up to four new pylons reaching approximately 61 metres.

NGET's own evidence demonstrates that the position is materially less settled. The final size, design and location of the point-of-connection solution remain subject to wider regulatory, commercial and technical decisions. Other Gate 2 projects may influence the required infrastructure. The proposed replacement connection agreement is not expected to retain the Applicant's existing obligation to secure the substation land or consent. Most importantly, NGET expressly states that DCO consent for Site 1B would not oblige it to accommodate East Pye through that substation.

The emergence of North Anglia Node A on the proposed Norwich–Tilbury reinforcement further strengthens the need to examine the long-term strategic justification for constructing a separate permanent National Grid substation on the existing transmission line for a generating project promoted as temporary.

The resulting uncertainty affects more than grid engineering. It goes directly to the definition and deliverability of the Scheme, the adequacy of the environmental assessment, the proportionality of compulsory acquisition, construction sequencing, stranded-infrastructure risk, ownership, environmental enforcement and the long-term justification for infrastructure which may remain after East Pye itself has been decommissioned.

The correct sequence is therefore important. The final transmission solution should determine the land, infrastructure and powers required. The DCO should not authorise the widest connection solution and compulsory powers first, leaving NGET to determine afterwards whether that infrastructure is actually needed.

Unless the Applicant and NGET can demonstrate during Examination that Site 1B forms a sufficiently defined and deliverable connection solution, the associated development and compulsory powers should be narrowed and made subject to binding hold points which prevent construction or acquisition before that necessity has been established.

4.6 The change from a 132 kV to a 400 kV project substation

The change to the project substation at Site 1B remains a material alteration to the Scheme, but the distinction between the project substation and the adjacent National Grid substation must be stated accurately. The infrastructure presented during statutory consultation was a 132 kV project substation with a materially smaller scale. The targeted consultation subsequently confirmed relocation and upgrade to a 400 kV project substation. The relevant maximum project-substation busbar height is

approximately 13 metres; the separate 15-metre busbar parameter applies to the National Grid substation.

ISH1 has since exposed uncertainty within the Applicant's own presentation of those parameters, and the ExA required correction of the relevant ES table. That correction matters because two adjacent but legally and operationally distinct 400 kV installations must not be conflated when assessing their landscape, heritage, aviation, drainage, noise and cumulative effects.

The design evolution was therefore not simply a move from one nominal voltage designation to another. The position progressed from a smaller 132 kV installation, described at consultation as approximately 7 metres high, to the 400 kV project substation now proposed with an approximately 13-metre maximum busbar height, alongside the separate National Grid substation for which the maximum busbar height is 15 metres.

4.6.1 Comparison of the consulted and applied-for designs

Parameter	Statutory consultation	Targeted consultation and final application	Assessment updated?
Voltage	132 kV project substation	Upgraded to 400 kV	The Applicant must identify every ES chapter amended to reflect the voltage change
Location	Earlier 132 kV position within or near Site 1B	Relocated eastwards within Site 1B	A location-specific audit is required for all nearby receptors
Maximum height	Approximately 7 m	Approximately 13 m in the targeted consultation; 15 m in final ES Chapter 4	It is not demonstrated that every final assessment used the 15 m envelope
Maximum compound area	No directly comparable final parameter identified in the targeted change note	Final ES permits up to 1.1 ha	The Applicant must show that the final footprint, not the earlier design, was assessed
Transformer number	Not clearly fixed	Not clearly fixed	Not demonstrated; maximum transformer number must be stated

Transformer dimensions and rating	Based on a 132 kV installation	400 kV equipment required	Not demonstrated through a consolidated before-and-after schedule
Transformer oil inventory	Not stated	Not stated	No clear maximum oil inventory identified
Busbars and switchgear	Lower-voltage substation configuration	400 kV busbars up to 15 m and associated switchgear	Must be checked against final landscape, noise and major-accident assumptions
Control and switch-room buildings	Earlier design not clearly quantified in the targeted material	Relay/control room and 33 kV switch room each up to 7 m × 19 m × 4.2 m	Applicant must confirm inclusion in all relevant assessments
Foundations	Earlier foundation envelope not clearly reconciled	Concrete base or plinth up to 1 m, or piling up to 12 m	Groundwater and piling assessments must be shown to use the final foundation case
Hardstanding	Smaller 132 kV design presumed	Larger 400 kV installation and access infrastructure	Maximum impermeable area is not consolidated
Drainage area	Based on earlier footprint	Must accommodate the 1.1 ha compound, hardstanding, access and oil containment	LLFA concerns indicate that adequate space and calculation were not demonstrated at targeted consultation
Operational noise sources	132 kV transformer and switchgear assumptions	400 kV transformers, switchgear and auxiliary equipment	South Norfolk Council expressly required an updated noise assessment
Lighting	Earlier substation design	Larger and taller operational compound with safety, security and maintenance lighting	Maximum lighting design and revised effects are not clearly compared
Fire and oil containment	Earlier voltage and equipment arrangement	Potentially larger transformers and oil inventory	Maximum inventory and containment volume remain unclear

Firewater containment	Not clearly defined	Must reflect final equipment and worst-case incident	No clear final design parameter identified
AIL requirements	Smaller 132 kV equipment assumptions	Larger 400 kV transformers and associated equipment	Final equipment weights, routes and delivery requirements must be stated
Construction plant and duration	Earlier design assumptions	Potential for greater piling, concrete, crane and AIL requirements	No transparent comparison has been provided
Landscape mitigation	Designed around smaller structure	Must mitigate a 15 m structure within a 1.1 ha compound	Applicant must show that mitigation was redesigned for the final envelope
Heritage assessment	Earlier 132 kV structure	Larger and taller development closer to Great Moulton assets	South Norfolk Council stated that updated heritage information was needed
Aviation assessment	Earlier lower structure	15 m substation and associated 61 m pylon infrastructure	Applicant must demonstrate assessment of the final combined vertical envelope

The absence of information in a cell is itself material. Where the Applicant has not stated the maximum transformer number, oil inventory, hardstanding area, firewater volume or source sound-power level, it is not possible to confirm that the final 400 kV installation falls within a complete environmental envelope.

4.6.2 The voltage change altered the physical project

The Applicant's final parameters demonstrate why the change cannot be dismissed as an internal electrical-design matter. The 400 kV project substation may include a compound of up to 1.1 hectares, busbars reaching approximately 13 metres, buildings, switch rooms, access, fencing and major foundations.

A 400 kV installation may require materially different:

- transformers;
- busbars and switchgear;
- electrical clearances;
- gantries;

- protection and control equipment;
- foundations;
- access for maintenance and replacement;
- oil containment;
- drainage;
- lighting;
- and abnormal-load delivery arrangements.

The relevant environmental question is therefore not simply whether both designs are described as ‘substations’. It is whether the final design has a greater physical, operational or risk envelope than the design on which earlier consultation and assessment were based.

4.6.3 The project and National Grid substation parameters must be kept distinct

The application contains two materially different 400 kV infrastructure components at Site 1B: the Applicant’s project substation and the National Grid substation. The project-substation parameter is approximately 13 metres to the top of the busbars, whereas the National Grid substation may reach 15 metres. The ExA has required the Applicant to correct the application material so that those parameters are presented consistently.

The distinction must be carried through every environmental assessment and visualisation. The Applicant should identify which height, footprint and layout were used for each structure in the LVIA, heritage assessment, aviation work, noise assessment and cumulative assessment, and confirm that the two adjacent compounds were assessed simultaneously in their respective reasonable worst-case forms.

The material design change remains significant even at 13 metres. The relevant comparison is between the smaller 132 kV installation consulted upon and the substantially larger 400 kV project substation now proposed, together with the adjacent 15-metre National Grid infrastructure. The environmental issue is therefore one of scale, massing and cumulative electrical infrastructure, not an incorrectly stated two-metre increase in the project-substation busbar height.

4.6.4 Landscape and visual effects

Norfolk County Council considered that the move from a 132 kV to a 400 kV substation would result in a more visible structure and that the footprint appeared significantly larger. It raised concerns about effects on Great Moulton and the surrounding countryside and requested clarification of the final scale and mitigation.

The final assessment should therefore demonstrate that it used:

- the full 1.1-hectare compound;

- the 15-metre busbars;
- all control and switch-room buildings;
- fencing;
- access;
- lighting;
- maximum transformer and switchgear massing;
- and the combined effects of the adjacent National Grid infrastructure.

The issue is cumulative even within Site 1B. The project substation would not be perceived in isolation from the six-hectare National Grid substation, BESS, overhead-line diversion and pylons.

4.6.5 Heritage effects

South Norfolk Council's heritage evidence identified concern that the upgraded substation would be larger and taller and that its final massing had not been explained. The Council considered that it could be visible and intrusive in the settings of designated heritage assets around Great Moulton and Moulton Farmhouse and stated that more detail and assessment were required.

The final heritage assessment must therefore identify:

- the assets from which the substation may be experienced;
- whether the 15-metre maximum is visible;
- the extent to which the larger compound changes the rural backdrop;
- effects of lighting and moving maintenance activity;
- and the combined effect with the National Grid substation and pylons.

A heritage assessment derived from the earlier 132 kV or 13-metre design would not assess the final application envelope.

4.6.6 Operational noise

South Norfolk Council's Environmental Management Officer stated that confirmation of the BESS and substation locations required the noise assessment to be updated. The officer considered that the BESS and substation could materially affect amenity and potentially amount to statutory nuisance unless substantial mitigation were secured.

The noise assessment must identify the final 400 kV source inventory, including:

- the maximum number of transformers;
- transformer sound-power levels;
- tonal corrections;
- switchgear;
- cooling systems;
- auxiliary equipment;
- control-building ventilation;
- emergency equipment;
- and simultaneous operation with the BESS and National Grid substation.

The application should not rely on generic substation data or equipment information derived from the former 132 kV design. The DCO should secure a receptor-based noise limit and require replacement plant to perform no worse than the equipment assessed.

4.6.7 Air quality and construction emissions

A larger substation may require more:

- excavation;
- piling;
- concrete;
- aggregate;
- crane activity;
- HGV deliveries;
- and abnormal loads.

South Norfolk Council stated that additional air-quality information was required following confirmation of the revised BESS and substation design. The Applicant should identify whether construction dust, plant emissions and traffic modelling were recalculated using the final 400 kV design and its delivery requirements.

4.6.8 Fire, oil and major-accident consequences

A 400 kV transformer compound may contain a larger transformer and oil inventory than the earlier 132 kV design. Yet the final Scheme Description does not provide a consolidated maximum transformer number or oil inventory for the Site 1B project substation.

That prevents clear identification of the worst case for:

- transformer fire;
- oil release;
- contaminated firewater;
- smoke generation;
- separation distances;
- emergency access;
- and pollution containment.

The Applicant should provide the maximum:

- transformer number;
- oil volume per transformer;
- total oil inventory;
- firewater demand;
- bund and containment volume;
- and credible accident scenario.

The fire and major-accident assessment must then demonstrate that it is based on those maxima.

4.6.9 Drainage and impermeable area

Norfolk County Council's LLFA stated that the enlarged project substation and the National Grid substation would create substantial impermeable areas requiring surface-water management. At targeted consultation, it found insufficient information to determine whether adequate space had been reserved for attenuation or whether existing surface-water storage would be displaced.

The final application identifies a compound area of 1.1 hectares but does not, in the Scheme Description, provide a complete breakdown of:

- impermeable hardstanding;
- permeable aggregate;
- building roofs;
- transformer bases;
- access;
- bunds;
- attenuation;
- firewater storage;
- and exceedance routes.

The Applicant should provide a final drainage-area schedule for the 400 kV design and demonstrate that the land required for SuDS and contaminated-water containment lies within the authorised and controlled compound.

4.6.10 Groundwater and foundation effects

ES Chapter 4 permits a concrete base or plinth up to one metre deep or piles to a maximum depth of 12 metres for major project-substation infrastructure.

The final groundwater and ground-conditions assessment should therefore consider:

- the maximum number and diameter of 12-metre piles;
- concrete volume;
- interaction with aquifers;
- preferential pathways;
- piling fluids or grouts;
- contaminated runoff;
- and cumulative effects with the adjacent BESS and National Grid foundations.

A generic statement that piling will be subject to later risk assessment does not demonstrate that the final 400 kV worst case has been assessed. The need for a consolidated foundation envelope is reinforced by Revision 2 of the draft DCO, which preserves additional flexibility in foundation and piling technology elsewhere within the Scheme, including the BESS.

4.6.11 Aviation consequences

The project substation forms part of the enlarged Site 1B electrical complex near Tibenham Aerodrome. The final aviation assessment should consider the combined maximum envelope of:

- a 13-metre project substation;
- a 15-metre National Grid substation;
- up to four 61-metre pylons;
- lighting;
- solar arrays;
- and associated cranes during construction and replacement.

The question is not whether a 15-metre substation alone would necessarily breach a formal safeguarded surface. It is whether the Applicant's aviation assessment used the actual final layout and considered pilot visibility, emergency operations and the cumulative concentration of infrastructure beneath or near relevant flight paths.

4.6.12 Construction traffic and abnormal loads

The change to 400 kV may alter the dimensions and weights of transformers, switchgear and ancillary equipment. It may therefore affect:

- the number of AIL deliveries;
- trailer length and width;
- bridge and junction requirements;
- crane capacity;
- access-track design;
- and local highway alterations.

The local and strategic AIL routes were not agreed at the time of the targeted consultation and remained the subject of objection by Norfolk County Council and National Highways. The Applicant should provide a component-specific delivery schedule for the Site 1B project substation and demonstrate that the final 400 kV equipment can be delivered through the assessed route.

4.6.13 Audit required of the final Environmental Statement

The Applicant should provide a topic-by-topic audit showing whether the final ES assessed the 400 kV Site 1B project substation using the following parameters:

Topic	**Final parameter that must be demonstrated**
Landscape and visual	1.1 ha compound, 15 m busbars, full buildings, fencing and lighting
Heritage	Final massing and combined effect with National Grid infrastructure

Noise	Maximum transformer, switchgear, ventilation and auxiliary source inventory
Air quality	Construction plant, HGV and AIL requirements for the final design
Major accidents	Maximum transformer number, oil inventory and fire scenario
Drainage	Maximum impermeable area, attenuation and firewater containment
Groundwater	Maximum 12 m piling and foundation footprint
Aviation	15 m structure and combined Site 1B vertical infrastructure
Traffic	Final transformer weights, AIL numbers and delivery routes
Climate and materials	Concrete, steel, equipment and replacement assumptions
Waste	Transformer, oil and equipment replacement and decommissioning

Where an assessment was not updated, the Applicant should explain why the earlier design remained a valid worst case. A bare assertion that the voltage change did not alter likely significant effects is not sufficient.

4.6.14 Conclusion

The Site 1B project substation changed materially after statutory consultation. The development evolved from a 132 kV installation approximately 7 metres high to a 400 kV design described at targeted consultation as approximately 13 metres high and finally to a 15-metre, 1.1-hectare maximum envelope in ES Chapter 4.

The change was capable of altering:

- landscape and visual effects;
- heritage setting;
- operational noise;
- air quality;
- transformer-fire and pollution risk;
- drainage;
- groundwater effects;
- aviation safeguarding;
- construction traffic;
- and AIL requirements.

The Applicant must demonstrate that every relevant ES chapter assessed the final 400 kV design rather than carrying forward assumptions derived from the earlier 132 kV proposal. Until that audit is supplied, the Examining Authority cannot safely conclude that the submitted Environmental Statement consistently assesses the development now authorised by Work No. 3A.

4.7 Uncertainty over the boundary between Applicant works and NGET works

The application seeks consent for substantial transmission infrastructure which would ultimately form part of the national electricity transmission system, but it does not yet provide a sufficiently clear and enforceable account of where responsibility passes from East Pye Solar Limited to National Grid Electricity Transmission plc.

That boundary matters because it determines who may exercise the powers in the DCO, who is responsible for detailed design and construction, which body is bound by the Requirements, who owns and maintains the resulting infrastructure, and against whom environmental obligations can ultimately be enforced.

The issue is therefore not one of private commercial allocation. It goes directly to whether the DCO provides a complete and legally effective control mechanism for Works Nos. 4 and 5.

4.7.1 The DCO authorises the transmission works themselves

Work No. 4 includes the National Grid substation, associated landscaping, sustainable drainage, biodiversity measures, construction compound and access. Work No. 5 includes construction and reconfiguration of the overhead transmission line, gantry and pylon works, temporary compounds and the dismantling or modification of existing transmission infrastructure.

The application is therefore not confined to providing land or enabling works for a future NGET project. It seeks development consent for the principal transmission infrastructure itself.

That makes it necessary to identify which body is responsible for each stage of its delivery and operation.

The Scheme Description presently identifies the physical components more clearly than it identifies the institutional responsibilities attached to them. It is not sufficient to state that the substation will ultimately be operated by NGET. The Examination must understand who designs it, who constructs it, who obtains approval of the detailed design, whose contractors carry out the works, when ownership transfers, and which body remains responsible for the environmental obligations that survive that transfer.

4.7.2 The delivery model remains insufficiently defined

The likely division of responsibility may involve the Applicant securing land and undertaking some civil works while NGET or its contractors install and commission the transmission equipment. The precise boundary has not yet been stated clearly.

That matters because the civil and electrical elements cannot sensibly be treated as environmentally separate projects. Site clearance, access construction, compound formation, foundations, drainage, busbars, switchgear, transformers, pylon foundations, conductor stringing and testing together comprise the authorised development.

All such works must therefore remain subject to the relevant construction and environmental controls irrespective of which organisation or contractor physically undertakes them.

The DCO should not create a position in which the Applicant's contractors are subject to construction hours, traffic limits, ecological safeguards, pollution controls and archaeological requirements, while materially similar works undertaken by NGET are treated as falling outside those same controls because responsibility has transferred.

The Applicant and NGET should accordingly identify the intended delivery model during Examination, including the point at which responsibility for the land, civil works, electrical plant and transmission-line works changes hands.

4.7.3 Detailed-design approval must be legally identifiable

This question is particularly important in relation to detailed design.

The Applicant relies on the Design Principles and Parameters and the DCO Requirements to ensure that later design remains within the assessed environmental envelope. However, South Norfolk Council has identified that Works Nos. 4A and 4B do not appear to be included within the principal detailed-design Requirement and has queried how those works will instead be approved.

That issue should be resolved expressly.

The Applicant should identify the statutory approval mechanism governing the final design of the National Grid substation and associated works, the approving authority, the mandatory consultees and the environmental parameters against which approval will be tested.

If the works are to be approved under the DCO, the relevant Requirement should be identified and should bind the body responsible for delivering them.

If any part of the transmission infrastructure is instead expected to require a separate planning permission under the Town and Country Planning Act 1990 or another statutory regime, the Applicant should identify precisely which works are affected and explain the relationship between the two consent regimes.

A work should not simultaneously be presented as authorised development under the DCO while its essential form remains to be determined under a separate planning process without a clear legal hierarchy between those approvals.

In particular, any separate consent route must not enable a later transmission design to exceed the environmental envelope examined in this DCO.

The current NPPF DP4 provides additional policy context for that problem. Design quality relied upon in the assessment should not be materially diminished during delivery merely because detailed engineering is undertaken by a different undertaker. The division between EPS and NGET therefore cannot create a regulatory gap in which National Grid detailed design falls outside the environmental parameters and design controls relied upon by the DCO.

4.7.4 NGET engineering flexibility must remain within the assessed envelope

NGET will necessarily retain a degree of technical control over infrastructure which must comply with transmission-system standards and wider network requirements. That does not remove the need for the DCO to establish the maximum environmentally assessed envelope.

The final design may involve choices concerning switchgear technology, busbar configuration, bay numbers, transformer arrangements, gantries, control buildings, pylon geometry and other technical matters. Those choices may properly be refined after consent provided that they remain within the parameters assessed.

What must not occur is a transfer of the Order to NGET which effectively creates a power to redesign the transmission component beyond those limits.

The Applicant should therefore identify which technical matters remain subject to NGET determination and demonstrate that the retained discretion cannot increase the footprint, height, pylon requirement, access requirement, foundation depth, lighting, drainage discharge or other material environmental parameter beyond the assessed maximum.

Any design change which materially exceeds that envelope should not be capable of treatment as ordinary detailed design. It would require further environmental assessment and, where necessary, further consent.

4.7.5 Transfer of the Order must transfer the obligations as well as the powers

The draft DCO must also address the possibility that the benefit of the Order, or part of it, is transferred to NGET.

The ExA should establish whether East Pye Solar Limited will initially be the undertaker for all Works and whether NGET will subsequently become the undertaker for Works Nos. 4 and 5, either wholly or in part.

The critical principle is that the environmental liabilities must follow the powers.

A transfer should not enable the original undertaker to cease responsibility before the receiving body has become legally bound by the corresponding Requirements and mitigation obligations. There should be no period during which construction or operation is authorised but responsibility for compliance is uncertain.

This is particularly important for obligations concerning construction environmental management, drainage, pollution control, access, traffic, lighting, landscaping, biodiversity, noise and emergency response.

The DCO should therefore ensure that any transfer of the transmission works automatically transfers or otherwise preserves every relevant environmental obligation applying to those works.

4.7.6 Land ownership and compulsory powers must reflect the actual delivery model

The division of responsibility also bears directly upon the compulsory-acquisition case.

The application should state whether East Pye Solar Limited intends to acquire the freehold of the National Grid substation land and transfer it to NGET; retain the land and grant NGET a lease or rights; enable NGET to acquire the land directly; or adopt some other arrangement.

That information is particularly important in light of NGET's evidence that the replacement connection agreement may no longer require the Applicant to secure the substation land or consent.

If NGET will ultimately require and control the land, the Applicant must explain why East Pye Solar Limited itself needs the compulsory powers now sought and whether permanent freehold acquisition is necessary.

The land interest, the party requiring it and the ultimate owner should therefore be identified consistently. Compulsory powers should not be granted to one body merely as an interim convenience where the need for the land arises from the requirements of another.

4.7.7 Long-term ownership creates continuing environmental obligations

The issue continues beyond construction.

The Applicant states that the National Grid substation and Grid Connection Infrastructure may remain after the solar generating station has been decommissioned. The environmental obligations associated with those permanent assets must therefore survive the end of East Pye itself.

That includes responsibility for access, surface-water drainage, oil containment, firewater systems, security, lighting, landscape mitigation, biodiversity measures and emergency response.

These matters cannot be treated as temporary construction obligations if the underlying infrastructure remains indefinitely.

The final DCO should therefore identify which body becomes responsible for the permanent transmission assets and ensure that the obligations necessary to maintain their environmental acceptability remain enforceable against that body and any successor.

This is especially important for drainage and landscaping.

Drainage infrastructure may require long-term maintenance, inspection of attenuation systems, pollution response and management of contaminated water. Likewise, landscape and biodiversity measures relied upon to reduce visual or ecological effects may require establishment, replacement planting and continuing management long after East Pye Solar Limited has ceased to operate the generating station.

The environmental assessment cannot rely on those measures unless responsibility for maintaining them is legally durable.

4.7.8 Enforcement responsibility must be unambiguous

The present uncertainty also creates an enforcement risk.

If a pollution incident, drainage failure, traffic breach, ecological impact, unauthorised design change or mitigation failure occurs, the enforcing authority must be able to identify immediately which body is responsible.

The DCO should not create a position in which the Applicant says that the matter lies with NGET, NGET says that the infrastructure was authorised and constructed under East Pye's DCO, and the local authority is left without a clearly identifiable party against whom to enforce.

That risk is particularly acute where assets, land and operational responsibilities transfer at different stages.

The Applicant and NGET should therefore provide an agreed responsibility and approvals schedule during Examination covering the principal stages of the transmission works: design, land acquisition, construction, environmental management, testing, commissioning, ownership, operation, maintenance, emergency response and permanent retention.

The purpose is not to expose private commercial arrangements. It is to demonstrate that every authorised activity has an identified responsible body and a corresponding enforceable DCO control.

4.7.9 Decommissioning and permanent retention must be divided expressly

The same clarity is required at the end of the Scheme's life.

East Pye's solar generating station is proposed for a finite operational period, whereas the National Grid infrastructure may remain permanently.

The Applicant and NGET should therefore identify which assets would be removed by East Pye, which would transfer or remain with NGET, which temporary areas would be restored, which access routes would be retained and who would remain responsible for the environmental mitigation associated with the permanent infrastructure.

That division should be established now rather than deferred until decommissioning several decades hence.

A decommissioning obligation directed only at East Pye Solar Limited is insufficient if the relevant infrastructure has previously transferred to NGET and is intended to remain in operation.

4.7.10 Information and DCO controls required

The uncertainty can be resolved without an elaborate activity-by-activity matrix if the Applicant and NGET provide a single agreed responsibility and approvals schedule during Examination.

That schedule should identify, for each principal component of Works Nos. 4 and 5:

the body responsible for detailed design; the body constructing it; the approval mechanism; the landowner or rights-holder; the owner and operator following commissioning; the Requirements and other environmental controls which apply; the point of any transfer; and the body responsible for long-term maintenance and permanent retention.

It should also identify any part of the works proposed to be approved separately under the Town and Country Planning Act or another statutory regime and explain how that approval is reconciled with the DCO.

The final Order should then secure four essential principles.

First, no transmission work should fall outside an identifiable detailed-design and environmental approval mechanism.

Secondly, any transfer of the benefit of the Order must carry with it the corresponding environmental obligations and liabilities.

Thirdly, NGET's technical discretion must remain within the environmental envelope assessed in this application unless further consent is obtained.

Fourthly, responsibility for permanent drainage, landscape, biodiversity, access, pollution and emergency obligations must remain enforceable for as long as the retained infrastructure exists.

4.7.11 Conclusion

The application authorises major permanent transmission infrastructure but does not yet define with sufficient precision the legal and operational boundary between East Pye Solar Limited and NGET.

That uncertainty affects detailed design, land acquisition, construction, environmental management, ownership, operation, maintenance, transfer, decommissioning and enforcement.

It is particularly significant because South Norfolk Council has already identified uncertainty over the detailed-design control applying to Works Nos. 4A and 4B, while NGET's own evidence indicates that the future contractual and connection arrangements remain in development.

The problem is therefore not simply that commercial responsibilities have yet to be finalised. The DCO must ensure that every authorised Work remains subject to an identifiable approval route, an identifiable responsible undertaker and enforceable environmental obligations throughout its life.

BEPS accordingly submits that the Applicant and NGET should provide an agreed responsibility and approvals schedule before the close of Examination and that the final DCO should secure the resulting allocation of powers, responsibilities and environmental liabilities.

The governing principle should be straightforward: the power to construct, own or operate the transmission infrastructure must never become separated from the legal responsibility to comply with the environmental case on which that power was granted.

4.8 Unresolved interaction with National Gas Transmission infrastructure

The Order Limits intersect nationally significant gas-transmission infrastructure owned and operated by National Gas Transmission plc ("NGT"), including the FM05 Yelverton–Stowmarket high-pressure feeder main and associated cathodic-protection equipment. The application seeks works, compulsory-acquisition, temporary-possession and rights

powers over land in which NGT has existing statutory, property and operational interests.

NGT's Relevant Representation identifies the feeder main and associated protection systems within or close to a number of Order plots, including plots 16-003, 16-004, 15-009, 11-036, 06-003, 06-002, 05-049, 06-001 and 05-048. NGT maintains an objection until satisfactory protective provisions and related protections are agreed.

The issue is therefore not simply the existence of a buried pipeline. It is whether East Pye's development envelope, land powers and long-term management arrangements have been shown to be compatible with the safe operation, maintenance and emergency accessibility of nationally significant gas infrastructure.

4.8.1 The FM05 feeder main is a fixed operational constraint

The FM05 feeder main forms part of the national high-pressure gas-transmission system. Its safe operation requires protection from incompatible loading, excavation, piling, ground disturbance, obstruction and loss of emergency access.

The Applicant must therefore demonstrate, in a single authoritative interface plan, how every relevant element of the Scheme relates to the pipeline easement and operational protection zone.

That interface is potentially extensive. It includes solar arrays and foundations, fencing, conversion equipment, access tracks, internal haul roads, cable trenches, trenchless crossings, drainage infrastructure, earthworks, compounds, soil storage, landscaping, habitat creation and permissive paths.

The problem with the present application is not that those activities are necessarily incompatible with the pipeline. It is that many are authorised through broad Work descriptions and associated-development powers without a consolidated plan showing where NGT's restrictions apply and which works are prohibited, constrained or subject to prior approval.

That uncertainty goes directly to physical deliverability. If parts of the solar, cable, drainage, access or biodiversity design cannot lawfully or safely occupy the NGT easement, the Scheme may require redesign.

4.8.2 Cathodic-protection infrastructure must also be protected

The pipeline is not the only relevant NGT asset. NGT also identifies cathodic-protection groundbeds, transformer-rectifier equipment and associated cabling.

Those systems are integral to the long-term corrosion protection of the pipeline and may themselves impose electrical, spatial and access constraints.

The Applicant should identify their precise locations and demonstrate adequate separation from East Pye's electrical and civil infrastructure. Particular attention is required where piling, buried cables, access tracks, drainage alterations or high-voltage equipment may interact with cathodic-protection systems.

The environmental and engineering assessment should not treat the pipeline corridor as though only the physical pipe itself matters. Interference with its protection systems may also affect operational safety.

4.8.3 The easement restrictions engage a wide range of East Pye works

NGT's easement rights and restrictions appear to control structures, changes in ground level, material storage and continuing access. Those restrictions potentially affect a substantial range of authorised works.

Solar development may involve driven piles, concrete foundations, fencing, gates, CCTV, electrical compounds, tracks, drainage and buried cables. Construction may additionally require excavations, HDD compounds, cranes, stockpiles, welfare areas and temporary storage.

The Applicant should therefore demonstrate that the DCO envelope has been designed around those pre-existing legal and operational constraints rather than leaving compatibility to detailed design.

In particular, the final plans should identify any permanent structure, foundation, pile, cable, drainage feature, compound, stockpile or planting proposed within or close to the easement. Where a work depends upon NGT approval, that should be stated expressly and secured through the Order.

A general commitment to consult NGT later is not equivalent to demonstrating that the authorised development can be implemented.

4.8.4 Ground levels, loading and access require specific control

Three interfaces require particular attention: ground levels, construction loading and continuing NGT access.

First, alterations to ground levels may change cover depth, loading, erosion conditions and emergency accessibility. Earthworks, swales, bunds, attenuation features, track construction and reinstatement therefore require specific control wherever they intersect the pipeline corridor.

Secondly, temporary and permanent vehicle loading may be materially greater than existing agricultural use. Internal haul roads, HGV routes, cranes and abnormal loads crossing the feeder main should therefore be subject to an agreed crossing design based on actual axle loads, pipeline depth, crossing frequency and NGT's technical standards.

Thirdly, NGT must retain continuous access for inspection, repair and emergency intervention. Solar fencing, security systems, construction compounds, landscaping or habitat measures must not create a situation in which NGT depends upon discretionary consent from the Applicant or site operator before entering the easement.

The DCO should therefore ensure that NGT's emergency and maintenance access takes priority over site-security and landscape-management arrangements.

4.8.5 Cable and drainage crossings must be fixed and controlled

Work No. 6 authorises substantial underground electrical infrastructure, including cables up to 132 kV and 400 kV, trenches, joint bays and trenchless crossings.

Every crossing of the FM05 feeder main or associated cathodic-protection infrastructure should be identified before the close of Examination, together with the proposed method, separation distances, crossing angle, bore or trench depth, construction plant and NGT supervision requirements.

Open-cut and trenchless methods present different risks. Open-cut works may affect support, cover or protection systems, while HDD and other trenchless methods introduce risks from drilling deviation, vibration and drilling-fluid migration. The crossing method should therefore not remain wholly undefined where its safety implications differ materially.

Drainage infrastructure requires equivalent scrutiny. Swales, infiltration systems, attenuation features, drains and outfalls may alter moisture conditions, erosion patterns or access. No infiltration, concentrated discharge or excavation within the relevant pipeline protection area should therefore occur without NGT approval.

4.8.6 Landscaping and BNG cannot conflict with pipeline safety

East Pye also relies extensively upon landscaping, ecological mitigation and biodiversity enhancement. Those measures must remain compatible with the operational requirements of the feeder main.

Deep-rooting trees, wetland creation, dense scrub, fencing or long-term habitat-management prescriptions may interfere with access, excavation, drainage or pipeline protection.

The Landscape and Ecological Management Plan should therefore identify the easement as a permanent operational constraint. It should make clear where trees and deep-rooting vegetation are prohibited, confirm NGT's right to remove vegetation where necessary, and ensure that biodiversity calculations do not rely upon habitat which cannot lawfully or safely be maintained for the required management period.

BNG obligations cannot override the continuing operation and safety requirements of nationally significant gas infrastructure.

4.8.7 Protective provisions remain unresolved

The most important legal issue is that the Applicant's Statement of Reasons appears to proceed on the basis that statutory-undertaker protections are adequate, while NGT itself maintains an objection because satisfactory provisions have not been agreed.

The Statement of Reasons relies upon sections 127 and 138 of the Planning Act 2008, article 33 of the draft DCO and the protective provisions in Schedule 14. It asserts, in substance, that those provisions prevent serious detriment to statutory undertakers.

NGT's Relevant Representation demonstrates that this conclusion is not agreed by the affected undertaker. Generic protective provisions may provide a starting point, but they cannot simply be assumed to satisfy the statutory tests where the relevant undertaker identifies unresolved safety, access or asset-protection concerns.

The ExA should therefore require the Applicant and NGT to identify clearly which provisions remain disputed and what site-specific protections are required in relation to the FM05 feeder main and its associated systems.

Those protections may need to address stand-off distances, structural loading, crossing design, prior written approval, supervision, access, emergency intervention, indemnity, cost recovery, as-built information, vegetation management and the treatment of future replacement and decommissioning works.

ISH1 identified a further unresolved interface at Site 7. BEPS asked how the proposed haul-road arrangement would cross the high-pressure gas transmission pipeline, and the Applicant was unable at the hearing to provide the engineering answer. The matter became a formal action point.

That is important because a haul-road crossing is not simply a traffic-management detail. It may require assessment of loading, protection slabs or bridging, depth of cover, construction sequencing, pipeline operator access, cathodic protection, drainage and emergency arrangements. If the engineering solution requires additional land, structures or route alteration, those consequences must remain within the assessed environmental and DCO envelope.

4.8.8 Compulsory-acquisition powers require particular scrutiny

The unresolved protective-provisions position also affects the compulsory-acquisition case.

The Applicant seeks powers capable of acquiring land or rights, imposing restrictions, taking temporary possession and potentially interfering with existing statutory-undertaker interests.

Where NGT's easement rights are integral to the safe operation of national gas infrastructure, those powers cannot be treated as ordinary third-party land interests.

The Applicant should therefore identify, plot by plot, the precise NGT interest affected, the Work No. said to require interference, the power sought and whether that power could extinguish, suspend, override or materially constrain NGT's existing rights.

The question is not merely whether the Applicant presently intends to move the pipeline. A power capable of overriding or constraining NGT's access or easement protections may itself have legal significance.

The Statement of Reasons should therefore be reconciled with NGT's objection before the ExA reaches any conclusion under sections 127 or 138. A finding that serious detriment has been avoided should rest on agreed or otherwise demonstrably sufficient protection, not on an assumption that agreement will be reached later.

4.8.9 The interface must remain safe for the whole life of the Scheme

The NGT interaction is not confined to initial construction. The application anticipates complete panel replacement, repeated BESS replacement, transformer replacement and eventual decommissioning. Each of those stages may reintroduce HGV movements, cranes, excavation, stockpiles, compounds, cable works and access restrictions.

Protective provisions and asset-protection controls must therefore apply throughout construction, operation, replacement and decommissioning, and must bind any successor or transferee of the DCO.

The same applies to emergency planning. The Applicant's management plans should address accidental pipeline strike, excessive loading, interference with cathodic protection, erosion, flooding, fire near the easement and any event requiring simultaneous coordination between solar, BESS, electrical and gas infrastructure operators.

The DCO should not assume that protection agreed for initial construction automatically covers materially different plant, loading or working methods several decades later.

4.8.10 Information and controls required

The remaining uncertainty should be resolved through one consolidated NGT interface package rather than multiple disconnected schedules.

BEPS submits that the Applicant should provide:

- a single detailed plan showing the FM05 feeder main, cathodic-protection infrastructure, easement and operational protection zones against all relevant East Pye works;
- a plot-by-plot reconciliation with the Book of Reference identifying the NGT interest, Work No., land power sought and potential interference;

- the agreed or disputed protective provisions;
- any required asset-protection agreement;
- a drawing and engineering methodology for every proposed construction or operational crossing of the FM05 pipeline, including the Site 7 haul-road crossing.
- and confirmation from NGT that the final solar, cable, access, drainage and biodiversity proposals are compatible with its operational requirements.

The DCO should then secure four core principles.

First, no work within the NGT protection zone should commence without the approvals required by NGT.

Secondly, no compulsory power should extinguish, suspend or materially interfere with NGT's rights or apparatus except in accordance with agreed protective provisions.

Thirdly, NGT must retain unrestricted operational and emergency access throughout the life of the Scheme.

Fourthly, all protections must continue to apply to replacement, decommissioning and any successor undertaker.

4.8.11 Conclusion

East Pye intersects nationally significant gas-transmission infrastructure and associated protection systems, yet the application does not presently demonstrate in one coherent document how the authorised development, land powers and mitigation measures are reconciled with those pre-existing constraints.

The issue extends beyond the physical pipeline. It includes cathodic-protection systems, easement rights, loading, ground-level changes, cable and road crossings, drainage, long-term access, biodiversity proposals, replacement works and compulsory-acquisition powers.

The Applicant's Statement of Reasons treats adequate statutory-undertaker protection as established. NGT's Relevant Representation demonstrates that, at submission, it was not.

That unresolved position has consequences for physical deliverability, environmental control and the statutory tests governing interference with NGT's land, rights and apparatus.

BEPS therefore submits that the NGT interface should be resolved during Examination through a detailed interface plan, plot-specific land and rights reconciliation, agreed protective provisions and any necessary asset-protection agreement.

Until those matters are resolved, the ExA cannot safely assume that the full development envelope can be implemented as authorised, that the compulsory powers sought are necessary and proportionate, or that serious detriment to NGT's undertaking has been excluded.

4.9 Cable Route Corridors and unresolved connection geography

The cable network is the physical system intended to connect the dispersed solar generating areas, the BESS and the project substations to the proposed National Grid substation at Site 1B. It is therefore not a secondary or incidental part of the Scheme. Its route, capacity, construction method and final destination determine whether the authorised generating station can operate and whether the environmental effects of the connection infrastructure have been assessed accurately.

ES Chapter 4 identifies fourteen Cable Route Corridors. The Applicant states that the precise cable alignments would be selected at detailed-design stage and that, unless otherwise stated, the Environmental Statement has assessed cables as capable of being installed anywhere within the relevant corridor. The DCO therefore does not authorise one fixed cable alignment. It authorises a broad spatial envelope within which one or more cable systems, construction works and associated infrastructure may later be placed.

That flexibility must be considered together with the uncertainty identified in Section 5.5. The cable network is designed around the proposed Site 1B National Grid substation, but NGET has not confirmed that Site 1B will be the final connection solution. The application must therefore establish whether the cable corridors are genuinely fixed to a confirmed point of connection, whether they may be constructed before that solution is settled, and what prevents unused or duplicated underground infrastructure from being installed.

4.9.1 Cable works authorised by the DCO

Work No. 6 authorises electrical cables with voltages up to 132 kV and 400 kV, together with associated construction and supporting works. ES Chapter 4 describes a cable system that may include:

- DC and low-voltage AC cabling within the solar sites;
- communications and fibre-optic cables;
- 33 kV collection cables;
- 132 kV cables;
- 400 kV export or connection cables;
- open-cut trenches;
- ducts;
- joint bays;
- link boxes;
- fibre chambers;
- trenchless crossings;

- horizontal directional drilling;
- launch and reception pits;
- temporary compounds;
- working areas;
- access and haul roads;
- dewatering;
- drainage;
- soil storage;
- and reinstatement.

The Work No. is accompanied by broad associated-development powers for excavation, trenching, tunnelling, boring, drilling, drainage, access and temporary works. The actual authorised cable development is therefore wider than the buried conductors alone.

4.9.2 Number and voltage of cables

The application identifies the maximum voltage classes but does not provide a complete consolidated schedule of the number of circuits or individual cables authorised.

The cable network may include cables operating at:

- low voltage and DC within the solar arrays;
- 33 kV between solar areas and project substations;
- 132 kV between substations or project components;
- and 400 kV between project infrastructure and the proposed National Grid connection.

However, the Scheme Description does not clearly state:

- the maximum number of 33 kV circuits;
- the maximum number of 132 kV circuits;
- the maximum number of 400 kV circuits;
- the number of individual cables per circuit;
- whether spare ducts may be installed;
- whether multiple parallel trenches may be used;
- or whether additional circuits may be constructed for the BESS or future connection configuration.

Those quantities are material because they determine:

- trench width;
- working width;
- soil disturbance;
- thermal output;
- number of joint bays;

- construction duration;
- dewatering;
- spoil storage;
- and the extent of later replacement or decommissioning.

The Applicant should provide a Cable Schedule identifying, for every corridor, the maximum voltage, circuit number, conductor number, duct number and intended destination.

4.9.3 Trench width and depth

ES Chapter 4 states that trenches for the principal 132 kV and 400 kV cable works may be up to approximately seven metres wide and two metres deep, except where additional space is required at joint bays, crossings or trenchless-work approaches.

Lower-voltage trenches may be approximately 1.6 metres wide and 1.2 metres deep. In agricultural land, the Applicant generally assumes a minimum burial depth of approximately 1.2 metres, while cables crossing existing apparatus may be installed up to approximately two metres below it.

These figures provide some maximum parameters, but they do not define the complete excavation envelope. In particular, the application should state:

- whether seven metres is the width of one trench or the total width of all parallel trenches;
- how many trenches may be open simultaneously;
- the maximum depth at joint bays;
- the maximum side slopes required in unstable ground;
- the width required for trench support;
- and the extent of additional excavation where cables pass beneath roads, rivers, gas pipelines or other utilities.

Without that information, the stated trench dimensions cannot be translated into a reliable maximum land-disturbance figure.

4.9.4 Overall working width

The Applicant identifies a typical cable working width of approximately 25 metres. That width may accommodate:

- the trench;
- stripped topsoil and subsoil;
- construction plant;
- access;
- cable drums;
- temporary drainage;
- safety zones;

- and working space.

Chapter 4 also states that the working width may be widened locally at roads, watercourses, existing utilities and other constraints. No clear absolute maximum is stated for those widened areas.

That omission is important because the environmental effects of cable construction arise largely from the working corridor rather than the final buried cable. A locally widened area may affect:

- additional hedgerows;
- watercourses;
- archaeological remains;
- protected habitats;
- agricultural soils;
- flood storage;
- public rights of way;
- and private land.

The DCO should therefore secure:

- a maximum ordinary working width;
- a maximum widened working width;
- the locations at which widening is permitted;
- and a requirement for further approval where the stated maximum must be exceeded.

4.9.5 Freedom to route cables anywhere within the corridors

The Applicant states that the final cables may be placed anywhere within the Cable Route Corridors unless a more specific restriction applies.

This is a wide form of micro-siting flexibility. It means that a corridor may contain numerous possible alignments, each with a different relationship to:

- watercourses;
- hedgerows;
- trees;
- archaeology;
- groundwater;
- residential receptors;
- statutory undertaker apparatus;
- roads;
- and designated habitats.

The Applicant should demonstrate that every materially different alignment within each corridor was capable of producing effects no worse than those assessed.

A general corridor-level assessment may be inadequate where one side of the corridor crosses a sensitive feature and the other does not. In those circumstances, the DCO should identify an exclusion area or fixed crossing rather than leaving the final choice to detailed design.

Norfolk County Council's evidence supports this concern. Its LLFA identifies a lack of detail concerning cabling associated with the solar arrays and uncertainty over the cumulative below-ground effects of cabling, piling and drainage infrastructure. The County Council's criticism is not confined to the main export corridors. It concerns the absence of a coherent account of the overall buried infrastructure across the Scheme.

BEPS has also identified that CRC4 is shown against outdated base mapping which does not depict the completed Long Stratton Bypass and associated biodiversity mitigation. The proposed cable corridor intersects newly established mitigation land including planted woodland blocks and wildlife ponds which were not present on the earlier mapping and have not been surveyed as part of the original baseline.

The final cable alignment therefore cannot be approved merely by reference to the existing broad corridor. The Applicant must update the mapping and ecological baseline, identify the bypass mitigation features and demonstrate whether they can be avoided. If avoiding them requires movement outside the assessed corridor or materially different construction methods, that must be resolved during Examination.

4.9.6 Joint bays

ES Chapter 4 states that joint bays may be required at intervals of approximately 250 to 500 metres. A typical joint bay may be approximately:

- 20 metres long;
- seven metres wide;
- and three metres deep.

Joint bays are therefore substantial excavations. They may require:

- reinforced concrete;
- dewatering;
- access;
- drainage;
- link boxes;
- fibre chambers;
- temporary compounds;
- and later maintenance access.

The application does not clearly state:

- the maximum number of joint bays;
- their final locations;

- total compound area;
- whether they remain permanently accessible;
- whether above-ground markers or link boxes are required;
- or whether they will be removed at decommissioning.

If the corridors extend over long distances, a spacing of 250 metres could produce materially more joint bays than a spacing of 500 metres. The Environmental Statement should therefore assess the maximum realistic number, not merely provide a typical interval.

4.9.7 Fibre chambers and link boxes

Chapter 4 also contemplates fibre chambers at intervals of approximately 500 to 2,000 metres. Typical dimensions are approximately 1.5 metres by one metre by 1.5 metres deep.

The application should identify:

- the maximum number;
- whether any above-ground apparatus is required;
- permanent access;
- drainage;
- and decommissioning treatment.

Although individually smaller than joint bays, these installations contribute to the cumulative permanent below-ground infrastructure and may constrain later land use.

4.9.8 Trenchless crossings and HDD

The Applicant may use HDD, boring or other trenchless techniques beneath:

- watercourses;
- roads;
- rail or utility infrastructure;
- environmentally sensitive features;
- and existing apparatus.

Chapter 4 gives a maximum individual bore diameter of approximately one metre and a maximum depth of approximately 12 metres. It also refers to a minimum depth of approximately five metres below the surveyed bed of a main river.

However, the application does not provide a complete maximum envelope for trenchless works. It does not clearly state:

- the maximum bore length;
- the maximum number of parallel bores;
- the maximum number of crossings;

- the dimensions of every launch and reception pit;
- the maximum drilling-fluid volume;
- drilling-fluid composition;
- the maximum dewatering requirement;
- or the area required for drilling rigs, storage and spoil.

Launch and reception areas may themselves require substantial temporary compounds. The final dimensions should be fixed for each crossing or controlled by a stated maximum.

The Environment Agency specifically identifies inadequate definition of trenchless works and their interaction with groundwater and other foundations. It is concerned about the potential for drilling and cable works to create preferential pathways, disturb groundwater and interact cumulatively with piling.

A generic commitment to prepare later method statements does not replace assessment of the maximum physical crossing envelope.

4.9.9 Fixed crossing locations

Crossings of sensitive or constrained features should not be left entirely open within a corridor.

Fixed or narrowly controlled locations are required where the cables cross:

- main rivers;
- ordinary watercourses;
- the FM05 gas feeder main;
- roads;
- protected hedgerows;
- ancient woodland buffers;
- archaeological sites;
- or other major utilities.

The crossing method and location may determine whether the impact is temporary, permanent or avoidable.

For example, an open-cut watercourse crossing and a deep HDD crossing involve different:

- habitat effects;
- groundwater risks;
- drilling-fluid risks;
- construction compounds;
- and reinstatement requirements.

The DCO should therefore identify fixed crossing points and the assessed method, with any alternative requiring approval and demonstration of no materially worse effects.

4.9.10 Cable thermal properties

The Environment Agency has raised concerns about the thermal effects of underground cables.

The application does not clearly state:

- the maximum conductor temperature;
- cable loading;
- heat loss;
- thermal resistivity assumptions;
- spacing between circuits;
- duration of peak loading;
- or the resulting change in surrounding soil temperature.

These parameters may affect:

- soil moisture;
- soil biology;
- agricultural productivity;
- groundwater;
- nearby watercourses;
- buried ecological features;
- and the performance of adjacent infrastructure.

The issue may be particularly significant where several high-voltage circuits run in parallel or where both solar and BESS flows use the same route.

The Applicant should provide a maximum thermal-loading assessment based on the full number and capacity of circuits. A later choice of cable manufacturer or conductor size is acceptable only if it remains within that assessed thermal envelope.

4.9.11 Preferential groundwater pathways

The Environment Agency also identifies the possibility that cable trenches, ducts, bedding materials and trenchless works may create preferential groundwater pathways.

A cable trench may introduce permeable aggregate or disturbed material through soils or geological layers that previously restricted water movement. This may:

- redirect groundwater;
- increase drainage along the trench;
- alter spring or watercourse flows;

- transport contamination;
- and affect private water supplies or groundwater-dependent habitats.

The application should identify:

- groundwater conditions along each corridor;
- locations where geological layers are penetrated;
- trench backfill materials;
- seals or cut-off barriers;
- dewatering;
- and long-term monitoring.

The interaction with piling is also relevant. Cable trenches and deep foundations may together create connected pathways not apparent when each work is considered separately.

4.9.12 Dewatering

Open trenches, joint bays and HDD pits may require dewatering.

The Scheme Description does not provide a scheme-wide maximum for:

- dewatering volume;
- duration;
- pumping rate;
- discharge location;
- settlement treatment;
- or number of simultaneous dewatering operations.

These omissions matter because dewatering can affect:

- groundwater levels;
- nearby wells;
- watercourses;
- sediment;
- contamination;
- and ground stability.

The Environment Agency should approve dewatering methods and discharge arrangements before relevant works commence. The DCO should also require cumulative assessment where several work fronts may dewater simultaneously.

4.9.13 Spoil and soil storage

Cable construction requires separate stripping and storage of:

- topsoil;

- subsoil;
- trench arisings;
- drilling spoil;
- and potentially contaminated material.

The 25-metre working width appears intended to accommodate some storage, but the application does not state:

- maximum stockpile height;
- maximum storage duration;
- total volume;
- additional land required at joint bays and HDD compounds;
- or how wet or contaminated material will be handled.

This information is material to:

- soil compaction;
- drainage;
- landscape effects;
- dust;
- agricultural restoration;
- and NGT easement restrictions.

No spoil or material storage should be permitted over statutory undertaker apparatus or within protected easements without written agreement.

4.9.14 Haul roads and access

The cable corridors may require temporary haul roads or use the working width for construction traffic.

The Applicant should identify:

- maximum haul-road width;
- total length;
- surfacing;
- crossing points;
- vehicle loading;
- drainage;
- and restoration.

Where a corridor crosses minor roads, watercourses or private accesses, temporary bridges or reinforced crossings may be required.

These works form part of the cable-development envelope and should not be treated as incidental construction detail.

Permanent access may also be required to joint bays, link boxes or other infrastructure. The application should distinguish clearly between:

- temporary construction access;
- emergency access;
- and permanent maintenance rights.

4.9.15 Is the cable network fixed to Site 1B?

The fourteen Cable Route Corridors are described as connecting the Scheme to the proposed National Grid substation at Site 1B. The route geography therefore appears to depend upon that connection point.

NGET's Relevant Representation, however, states that the final point-of-connection solution remains subject to wider regulatory and commercial considerations and that other Gate 2 offers may affect the size, design and location of the National Grid infrastructure.

The Applicant must therefore confirm:

- whether every corridor is designed exclusively for Site 1B;
- whether any corridor could be redirected to another connection point;
- whether the Order Limits include alternative routes;
- and whether the cable design would remain technically usable if Site 1B is not selected.

If the final connection point moves outside the present corridors, additional land and consent may be required. If the corridors are wide enough to permit a materially different destination, the DCO may authorise a wider connection geography than the Environmental Statement describes.

4.9.16 Could cables be constructed before the NGET solution is confirmed?

The draft DCO must be examined to determine whether Work No. 6 may commence independently of Works Nos. 4 and 5.

If so, the Applicant could potentially:

- strip land;
- excavate trenches;
- install ducts;
- construct joint bays;
- install cables;
- and reinstate land

before NGET confirms that Site 1B is the final connection point. That would create an obvious risk of stranded infrastructure.

The DCO should prevent commencement of any high-voltage cable route serving the National Grid connection until:

1. NGET has confirmed the final point of connection;
2. the final cable destination is fixed;
3. the relevant connection agreement is effective;
4. and the cable design has been approved.

Internal solar-array cabling may be capable of proceeding separately, but the Applicant should distinguish it from export infrastructure whose utility depends on the unresolved NGET solution.

4.9.17 Duplicate or stranded cable infrastructure

The current broad powers may permit ducts or cables to be installed that later become unnecessary if:

- the Site 1B solution changes;
- the BESS is not connected;
- the number of project substations changes;
- or NGET requires a different configuration.

The Applicant should identify whether spare or redundant ducts may be installed as part of the initial works and whether new cables could later be laid within the same corridors under maintenance or replacement powers.

There should be an express prohibition on constructing:

- duplicate circuits;
- speculative ducts;
- or cable infrastructure disconnected from the approved final connection solution

unless their environmental effects and operational need have been established.

4.9.18 What happens if the connection point moves?

If NGET selects a different point of connection, the Applicant must explain whether:

- the existing corridors remain usable;
- cables would need to be extended;
- new corridors would be required;
- installed cables would be abandoned;
- joint bays and ducts would remain;

- or a material change to the DCO would be necessary.

This is not a theoretical issue. The entire cable network has been designed around Site 1B while NGET has not confirmed that the location or configuration will be used.

The Examining Authority should not grant broad cable powers on the assumption that any later connection solution can be accommodated through detailed design.

4.9.19 Are the powers wider than the assessed alignment?

A corridor-based DCO may lawfully retain route flexibility, but the assessed alignment must encompass the worst realistic effects of every permitted route.

The Applicant should therefore reconcile:

- the Works Plans;
- cable figures;
- environmental constraints plans;
- land plans;
- and the final cable schedule.

For each corridor, it should identify:

- environmentally constrained areas;
- prohibited areas;
- fixed crossings;
- maximum working width;
- maximum circuit number;
- and permanent infrastructure.

Without that reconciliation, the power to route ‘anywhere’ within the corridor may be wider than the alignment actually considered in the technical assessments.

4.9.20 Cumulative below-ground effects

Norfolk County Council identifies uncertainty over the cumulative below-ground impact of:

- solar piling;
- substation piling;
- BESS foundations;
- cable trenches;
- HDD;
- drainage;
- and other buried infrastructure.

The effects should not be assessed in isolation. In some locations, several work types may overlap or run close together.

The final assessment should therefore map and assess the combined maximum below-ground envelope, including:

- excavation depth;
- pile depth;
- cable depth;
- groundwater interaction;
- soil displacement;
- concrete;
- aggregate;
- and retained infrastructure.

This is particularly important around Site 1B, where the BESS, project substation, National Grid substation, pylons and cable routes converge.

4.9.21 Cable lifespan and replacement

The Environment Agency identifies uncertainty over cable lifespan and the need for replacement.

The Scheme has a proposed 60-year operational life, but the application does not provide clear evidence that every cable and joint will remain serviceable for that period.

The Applicant should identify:

- assumed life of each cable type;
- joint-bay life;
- whether replacement is anticipated;
- whether replacement requires re-excavation;
- whether ducts permit cable pulling;
- and whether replacement traffic and waste

4.10 The Rochdale Envelope is insufficiently defined or controlled

4.10.1 The Applicant's reliance on a design envelope

The Applicant relies upon the Rochdale Envelope to retain flexibility over the detailed design of the Scheme. That approach is not objectionable in principle. It is not necessary for a DCO application to identify the manufacturer, model or precise final position of every panel, transformer, cable or item of electrical plant.

However, a lawful and reliable design envelope must do more than identify broad development areas and a selection of indicative or maximum dimensions. It must:

1. define the principal physical and operational characteristics of the development;
2. identify the realistic range of designs that may ultimately be constructed;
3. assess the environmentally worst realistic outcome for each relevant receptor;
4. prevent combinations of parameters that were not assessed;
5. and contain enforceable controls ensuring that the detailed development cannot produce materially different or worse effects.

ES Chapter 4 states that the Environmental Statement is based upon maximum and, where relevant, minimum parameters intended to represent the realistic worst case. The Applicant relies upon the Design Principles, Parameters and Commitments document and the draft DCO Requirements to ensure that the detailed design will produce environmental effects that are the same as or no worse than those assessed.

The revised Explanatory Memorandum now makes one aspect of that flexibility explicit. The Applicant deliberately seeks no upper electrical-output limit for the generating station. It states that future technological improvements may permit a greater generating capacity to be achieved within the assessed physical parameters and considers an output cap unnecessary provided the consent envelope is adequately secured. BEPS does not contend that the absence of a MW cap is unlawful in itself. Its significance is that the Applicant must demonstrate that every potentially output-sensitive environmental effect remains bounded by parameters independently secured within the DCO, including inverter and transformer specification, electrical plant, cooling requirements, operational noise, heat, EMF, replacement activity and associated grid infrastructure.

The evidence examined in the preceding sections demonstrates, however, that the retained flexibility extends beyond ordinary equipment selection. It affects:

- the technology used across the solar fields;
- the number and distribution of electrical units;
- the capacity, duration and chemistry of the BESS;
- the number and configuration of project substations;
- the location, necessity and final form of the National Grid connection;
- the alignment and scale of underground cable works;
- the number and extent of temporary construction areas;
- the timing and scale of replacement works;
- and the identity of infrastructure that would remain permanently after decommissioning.

In several instances, no complete maximum parameter has been stated. In others, the parameter stated in the final application differs from that presented during consultation. In still others, the future infrastructure owner has not confirmed that the work described and assessed by the Applicant will form the final solution.

The issue is therefore not simply whether some details may properly be chosen later. It is whether the Order defines and controls one assessable project, or instead authorises a range of materially different projects whose combined environmental and operational consequences have not been demonstrated.

ISH1 has materially strengthened this issue. The Applicant confirmed that the Illustrative Masterplan is "entirely indicative" in the sense that important infrastructure siting remains capable of detailed-design change. The ExA consequently sought further information concerning panel overplanting and ratings, panel type and location, minimum panel spacing, AIS/GIS substation technology, switchrooms and conversion units, fencing, lighting, Site 6 construction use and construction-compound phasing.

This does not make the Rochdale Envelope unlawful. It does, however, make the control question more acute: the Examination must be able to identify the set of materially different configurations which the DCO permits and demonstrate that each remains within the reasonable worst cases assessed.

4.10.2 Consolidated assessment of the retained flexibility

The following table brings together the principal areas in which the Rochdale Envelope remains incomplete, internally inconsistent or insufficiently controlled.

Scheme component	Uncertain parameter	Why it matters	Evidence	Required control
Overall generating capacity	The Scheme is promoted as approximately 500 MW, but the authorised generating station is described only as exceeding 100 MW and the Applicant expressly states that no upper electrical-output limit is sought.	The need and benefits case may rely on a 500 MW project, while the Order may permit a materially smaller or potentially larger generating station; this also affects severability and compulsory acquisition	Revised Explanatory Memorandum APP/3.2, §1.4.3–1.4.4.	Maximum solar export capacity and any minimum implementation capacity secured in the DCO

Solar development extent	Total developed panel area, maximum panel number, table number and equipment density	Determines landscape coverage, runoff, construction materials, traffic, replacement waste and land-use intensity	ES Chapter 4 provides spacing and dimensional parameters but no consolidated equipment total	Site-by-site maximum developed area and equipment schedule
Solar-panel technology	Fixed panels, single-axis trackers or a mixture of both	The technologies differ in height, movement, orientation, glare, landscape effect, aviation interaction, vegetation management and runoff behaviour	NCC notes that both technologies remain permitted; SNC distinguishes 4.5 m trackers from lower fixed panels; NGC and GAAC raise aviation concerns	Field-by-field technology schedule and sensitive-area restrictions
Tracker height and movement	Trackers may reach 4.5 m and move through a wide operational angle	Maximum inclination produces a different visual, glare and aviation profile from the horizontal position	ES Chapter 4; SNC; NGC; GAAC	Maximum movement and angle secured; tracker exclusions around sensitive receptors
Fixed-panel height and orientation	Fixed panels may reach 3.5 m and be installed at slopes between approximately 10 and 35 degrees	Height and slope affect visibility, heritage setting, glare and runoff direction	ES Chapter 4; SNC seeks lower fixed panels in sensitive areas	Lower field-specific height limits and secured orientation

Panel row spacing and density	Final row separation and density remain adjustable within broad limits	Affects panel number, vegetation, soil exposure, runoff, maintenance access and landscape character	ES Chapter 4	Maximum field density and binding minimum spacing
Panel foundations	Driven piles, screwed piles, concrete feet or non-penetrative foundations; pile number and diameter not fixed	Different methods produce different noise, vibration, archaeological, groundwater, soil and drainage effects	NCC identifies cumulative below-ground impacts; EA seeks clearer foundation information	Location-specific foundation method; maximum depth, diameter, number and concrete volume
Conversion units and inverters	Equipment may be standalone or integrated; maximum total number and distribution are not stated	Determines cumulative noise, transformer oil, hardstanding, drainage, material use and visual clutter	ES Chapter 4 gives individual dimensions but not total quantities	Site-by-site maximum equipment count and cumulative noise and hardstanding limits
Solar-site fencing	Final alignment, gate locations and total length	May fragment habitat, obstruct emergency or statutory access and affect landscape character	ES Chapter 4; NGT access concerns; NGC emergency-landing concerns	Approved fencing plan, ecological permeability and access safeguards
CCTV and security infrastructure	Final number and location of cameras and poles	Affects visual amenity, ecology, privacy and	ES Chapter 4 states maximum	Maximum numbers and an approved security layout

		aviation perception	heights but not quantities	
Lighting	Number, height, brightness, direction and duration of operational, emergency and temporary lighting	Affects dark skies, ecology, residential amenity, landscape and aviation	ES Chapter 4; SNC; NGC and GAAC	Binding lux limits, hours, shielding, height and emergency-lighting protocol
BESS connection status	Solar has Gate 2 status while BESS remains Gate 1	The project is presented as integrated solar and storage, but the components do not share the same connection certainty	NGET Relevant Representation	BESS connection entitlement before commencement and a works-severability schedule
BESS capacity	MW, MWh, discharge duration, import capacity and export capacity are not clearly fixed	Determines stored energy, system benefits, connection requirements, fire consequences and compound scale	ES Chapter 4; NGET; NCC	Maximum and minimum MW/MWh, duration and import/export limits
BESS technology	Battery chemistry, cell type, enclosure type and energy density	Different technologies may have materially different fire, emission, cooling, waste and emergency consequences	EA raises firewater, damaged battery and replacement concerns	Defined technology envelope and measurable fire, pollution, heat and noise limits

BESS enclosure number and size	Maximum number, length and width of battery enclosures	Determines compound area, spacing, fire propagation, access and drainage	NCC LLFA states enclosure number and dimensions were unknown	Maximum enclosure dimensions and number, with minimum separation distances
BESS compound area	No complete numerical maximum for the total BESS compound and associated plant is clearly stated	Determines land take, visual effect, impermeable area and firewater requirements	ES Chapter 4; NCC LLFA	Certified maximum compound boundary and impermeable-area limit
BESS cooling and auxiliary plant	Number, rating and sound-power level of cooling systems, inverters and transformers	Determines night-time noise, heat rejection, oil inventory and drainage	SNC requires updated noise assessment; NCC and EA identify unresolved plant detail	Maximum equipment schedule and receptor-based operational noise limits
BESS drainage and firewater containment	Containment volume, isolation arrangements, sealed drainage and suppression system	A fire could produce contaminated water affecting groundwater and watercourses	EA seeks impermeable drainage, penstocks and worst-case containment; NCC LLFA identifies insufficient space and detail	Approved quantified firewater and drainage design before battery installation
BESS emergency access	Final access, secondary access, turning and separation	Determines whether emergency services can respond safely	NCC fire and emergency evidence	Fire-authority-approved access and emergency-response plan
BESS replacement	Up to five replacement cycles, with	Later equipment may produce different fire,	ES Chapter 4; EA	Replacement technology-equivalence test

	future technology unspecified	noise, waste, traffic and pollution effects		and updated risk approval
132 kV project substations	Number, transformer configuration, equipment layout, foundation method and oil inventory	Affects landscape, noise, drainage, pollution and groundwater	NCC identifies uncertainty over single or double configurations; EA seeks foundation and pollution information	Maximum layout, transformer number, oil inventory and foundation envelope
400 kV project substations	Number, configuration, equipment, foundations, control buildings and hardstanding	These are major industrial compounds with substantial operational and environmental consequences	NCC; SNC; EA	Substation-specific maximum layouts and equipment inventories
Site 1B project-substation voltage	Changed from 132 kV to 400 kV after statutory consultation	The higher-voltage development may require larger plant, foundations, oil containment and AIL deliveries	NCC and SNC targeted responses	Final 400 kV design schedule and topic-by-topic assessment audit
Site 1B project-substation height	Approximately 7 m at statutory consultation, approximately 13 m at targeted consultation and 15 m in final ES Chapter 4	Affects landscape, heritage, aviation and the reliability of consultation and assessment	NCC and SNC commented on the 13 m design; final ES permits 15 m	Binding 15 m maximum and proof that all assessments used it

Project-substation transformer number	Maximum number and configuration are not stated clearly	Determines noise, oil inventory, fire risk, drainage and AIL requirements	NCC; SNC; EA	Maximum transformer schedule and source sound-power levels
Project-substation oil inventory	Total transformer oil volume and credible spill scenario	Determines bunding, firewater and pollution consequences	EA	Maximum oil inventory and containment volume
Project-substation drainage	Maximum impermeable area, attenuation area and firewater containment	Larger 400 kV compounds may displace flood storage and require substantial SuDS	NCC LLFA	Compound-specific drainage calculations and fixed SuDS area
National Grid substation location	Whether Site 1B is the final point of connection	Determines the cable destination, pylons, landscape effects, land take and compulsory-acquisition case	NGET states that the final solution remains subject to wider regulatory and commercial considerations	Written NGET confirmation of Site 1B before commencement or compulsory acquisition
National Grid substation necessity	Whether NGET will construct, adopt or use the proposed substation	Consent would not oblige NGET to accommodate a connection at it; the work could become stranded	NGET Relevant Representation	Binding connection agreement and NGET confirmation before works or land powers are exercised
National Grid substation footprint	Approximately 3 ha at consultation and up to 6 ha in the final application	Doubling the area affects drainage, landscape, land take,	NCC targeted response; ES Chapter 4	Six-hectare absolute maximum and proof that the

		construction and compulsory acquisition		final footprint was assessed
National Grid substation layout	Number of bays, busbar arrangement, switchgear, buildings and electrical plant	Other Gate 2 projects may alter the final size and configuration	NGET	NGET-approved design confined to the assessed envelope
National Grid substation foundations	Raft or piles up to 12 m, but pile number, diameter and layout remain open	Affects groundwater, geology, concrete, piling noise and construction traffic	ES Chapter 4; EA	Maximum pile number, diameter, depth and concrete volume
Additional National Grid infrastructure	Further bays, pylons, line works or a different connection arrangement may be needed	Further infrastructure may fall outside the DCO and alter cumulative effects	NGET	Full final network solution and separate consent for any out-of-envelope works
Applicant/NGET works boundary	Who designs, constructs, owns, operates and maintains Works 4 and 5	Determines liability, enforcement and whether DCO Requirements bind the body undertaking the work	NGET; SNC	Joint responsibility and approvals matrix
Detailed approval of NGET works	Requirement 5 appears not to include Works 4A and 4B	Major permanent works could fall outside the principal design-control Requirement	SNC	Express DCO approval mechanism or identified equivalent statutory control

Transfer of DCO powers to NGET	Which powers and obligations transfer and when	A transfer could leave mitigation or liability with the wrong body	NGET; SNC	Transfer provisions carrying all environmental obligations
Pylon number	Up to four new pylons, with temporary works also contemplated	Number affects landscape, heritage, aviation, foundations and construction access	ES Chapter 4; NCC targeted response	Fixed absolute number and certified pylon schedule
Pylon location	Final position within broad limits	Relocation may change effects on views, heritage assets, homes and aviation	NCC	Approved alignment and restricted limits of deviation
Pylon height	Up to approximately 61 m, compared with existing towers understood to be approximately 53 m	Greater height affects long-distance visibility, heritage setting and aviation	NCC targeted response	Binding maximum height and final visual and aviation assessment
Cable circuit number	Maximum number of 33 kV, 132 kV and 400 kV circuits is not consolidated	Determines trench width, heat output, joint bays, construction duration and replacement effects	NCC; EA	Corridor-by-corridor maximum circuit and conductor schedule
Cable alignment	Cables may be routed anywhere within fourteen broad corridors	Different alignments may affect different watercourses,	ES Chapter 4; NCC; EA	Approved final alignment, exclusions and fixed sensitive crossings

		habitats, archaeology, utilities and properties		
Cable trench width and depth	Principal trenches may be up to approximately 7 m wide and 2 m deep, but the relationship between trench number and total width is unclear	Multiple parallel trenches could materially increase excavation and soil disturbance	ES Chapter 4	Maximum trench number and total excavation width
Cable working width	Typical width approximately 25 m, with local widening permitted	Local widening may increase land take and affect additional receptors	ES Chapter 4	Absolute ordinary and widened working-width limits
Joint bays	Typical dimensions and spacing are stated but maximum number and location are not	Joint bays are substantial permanent or semi-permanent excavations requiring access and drainage	ES Chapter 4; EA	Maximum number and approved locations, with removal obligations
Fibre chambers and link boxes	Number, location and above-ground elements remain open	Contribute to permanent infrastructure and access requirements	ES Chapter 4	Maximum number and approved layout
HDD and trenchless works	Maximum depth is stated, but bore length, bore number, pit dimensions and compounds are not fully defined	Affects groundwater, drilling-fluid risk, habitats and construction land	EA	Crossing-specific approval and maximum depth, length, bore number and pit area

Cable thermal effects	Conductor temperature, loading, circuit spacing and heat loss	May affect soils, groundwater, watercourses and adjacent infrastructure	EA	Maximum thermal-loading assessment and performance limit
Preferential groundwater pathways	Trenches, ducts and bedding may redirect groundwater or contaminants	Could affect springs, watercourses, private water supplies and habitats	EA	Groundwater assessment, seals, cut-offs and monitoring
Cable dewatering	Maximum rate, duration, discharge and simultaneous operations	May alter groundwater levels and watercourse conditions	EA	Quantified dewatering limits and approved discharge plan
Cable spoil storage	Volume, height, location and duration	Affects soil quality, drainage, dust, archaeology and statutory easements	NCC; NGT	Quantified soil plan and exclusion from protected easements
Cable connection dependency	Whether export cables may be constructed before Site 1B is confirmed	Could create stranded or duplicated underground infrastructure	NGET	Prohibition on export-cable commencement before final connection approval
Cable lifespan and replacement	Whether cables last for 60 years and whether re-excavation will be required	Replacement may amount to a further major construction phase	EA	Cable-life and replacement schedule
Construction compounds	Number, size, location, hardstanding and simultaneous use	Affects traffic, noise, flood risk, lighting, ecology and total temporary land take	NCC LLFA	Certified compound plans and maximum individual and cumulative footprints

Temporary laydown areas	Number, location and cumulative extent	Broad powers may permit disturbance beyond principal compounds	Work No. 8; NCC LLFA	Maximum total area and approved locations
Temporary haul roads	Total length, width, surfacing and restoration	Affects soils, drainage, hedgerows, utilities and long-term land recovery	ES Chapter 4; NCC	Maximum route network and restoration controls
Construction phasing	Number of simultaneous work fronts and degree of overlap	Greater concurrency may increase peak noise, traffic and ecological disturbance	ES Chapter 4 retains programme flexibility	Phasing plan and simultaneous-work-front limit
Construction duration	Approximately 24 months, but major components may be delivered separately	Delayed BESS or NGET works may extend disturbance beyond the assessed period	NGET; solar/BESS Gate-status evidence	Work-specific commencement and completion controls
Construction HGV movements	Daily figures are stated, but distribution, cumulative traffic and enforceable caps remain unclear	Determines local highway, noise, air-quality and residential effects	NCC; National Highways	Binding daily and hourly caps and route monitoring
AIL routes	Strategic and local routes remain unresolved	Determines physical deliverability and impacts on conservation areas, vegetation and rural lanes	National Highways; NCC; SNC	Agreed port-to-site AIL strategy before commencement

Highway works	Exact visibility works, vegetation removal and temporary alterations	May affect conservation areas, rural character, drainage and biodiversity	SNC and NCC targeted responses	Route-specific highway design and vegetation schedule
Outdated mapping	Works Plans omit the operational Long Stratton Bypass	The authorised geography and environmental baseline may be inaccurate	NCC targeted response	Corrected certified Works Plans
Inconsistent mapping	Scheme, access, infrastructure and cumulative development are depicted differently across documents	Makes it difficult to establish the exact development assessed and authorised	NCC; application plans	Formal plan-reconciliation schedule
Panel replacement	All panels may be replaced once over approximately 12–24 months	May create a second scheme-wide construction phase	ES Chapter 4; NCC; SNC	Replacement Management Plan and maximum simultaneous replacement area
BESS replacement	Up to five replacement cycles	Creates repeated traffic, noise, waste, fire and pollution effects	ES Chapter 4; EA	Maximum replacement cycles and updated technology approval
Transformer replacement	Replacement once is assumed, but route and final equipment remain open	May require further AIL movements and oil handling	ES Chapter 4; National Highways and NCC route evidence	Transformer Replacement Plan and approved route
Construction compounds for replacement	Whether original compounds may be reinstated and how large they may be	Repeated temporary land take and disturbance are not defined	NCC LLFA; ES Chapter 4	Replacement-compound limits and reinstatement controls

Decommissioning duration	Approximately 12–24 months, with method deferred	Effects depend on the final method and the infrastructure removed	ES Chapter 4; EA	Binding final Decommissioning Strategy
'Substantially in accordance with'	Final plans may only need to be substantially rather than strictly in accordance with outline controls	Adds an undefined tolerance to an already broad envelope	EA	Remove 'substantially' or define a narrow, objective amendment mechanism
Solar and BESS removal	Main above-ground works are proposed for removal, but below-ground treatment remains flexible	Determines agricultural restoration and permanent effects	ES Chapter 4; NCC; EA	Definitive removal-depth and restoration schedule
Cable and duct retention	Cables may remain or be pulled out; ducts and joint bays may remain	Leaves permanent infrastructure under agricultural land	EA; NCC	Presumption of removal unless retention is specifically justified
National Grid infrastructure after decommissioning	Substation, pylons and associated grid works remain permanently	Permanent landscape, drainage and maintenance effects continue beyond the solar project	ES Chapter 4; NCC	Permanent-infrastructure and long-term management schedule
Retained foundations	Foundations may be cut off below ground rather than removed	May constrain agriculture, drainage and future land use	ES Chapter 4; EA	Material-specific removal requirements

Permissive paths	May be removed at decommissioning	Claimed recreational benefits may not be permanent	ES Chapter 4	Clear duration and closure controls
Aviation panel-free areas	No fixed emergency landing or operational exclusion area is clearly secured	Panels may reduce emergency landing options and affect aerodrome operations	NGC; GAAC	Aviation Safeguarding Plan and certified panel-free areas
Panel reflectivity	Final module type and reflectivity are not fixed	Glare may impair pilot lookout and visibility	NGC; GAAC	Maximum reflectivity standard and site-specific glare assessment
Tracker movement near flight paths	Time-dependent panel angles and reflections	Moving surfaces may create changing glare and visual effects	NGC; GAAC	Tracker restrictions or prohibition in aviation-sensitive areas
Pylon and substation aviation effects	Final location and combined vertical envelope	May affect pilot awareness and emergency operations	NGC; GAAC; NCC	Final aviation assessment of the complete Site 1 infrastructure
Emergency landing land	Extent of land retained free of panels, fences and structures	Human safety consequences may be severe even where events are infrequent	NGC	Binding emergency-landing and access plan
Gas-pipeline setback	Exact exclusion zones for panels, foundations, compounds, planting and storage	Incompatible development could threaten national gas infrastructure	NGT	Plot-specific interface plan and agreed stand-off distances

Gas-pipeline crossings	Cable, road and drainage crossing locations and methods	Risks loading, physical damage and cathodic-protection interference	NGT	NGT-approved crossings and supervision
Ground-level changes above pipeline	Earthworks, swales, access tracks and reinstatement may change cover and loading	May affect pipeline integrity and emergency access	NGT	Prohibition without NGT approval
Material storage over pipeline	Flexible soil, plant and laydown locations	Existing easements restrict material storage and loading	NGT	Storage exclusion zones
BNG and planting over pipeline	Trees, scrub, wetland or fencing may obstruct access or introduce deep roots	Could conflict with statutory duties and emergency excavation	NGT	Planting exclusions and priority for pipeline access
Compulsory acquisition over NGT rights	Extent to which easements, rights and access may be acquired, restricted or overridden	Statutory rights could be affected before protective provisions are agreed	NGT; Statement of Reasons; Book of Reference	Agreed protective provisions and plot-specific limitation of powers
Partial implementation	Whether individual solar sites, the BESS, project substations or grid works may be omitted	The delivered Scheme may differ materially from the integrated project assessed and promoted	Solar/BESS Gate-status evidence; NGET	Works-severability and minimum-implementation schedule
Delayed implementation	Whether BESS, substations or NGET works may	May create repeated construction	ES Chapter 4; NGET	Longstop dates and updated

	commence years after the solar arrays	and changed environmental baselines		surveys before delayed works
Ownership and operation	Which body owns and operates the National Grid infrastructure and associated land	Determines long-term maintenance, liability and enforcement	NGET; SNC	Binding ownership and operational responsibility matrix
Environmental obligations after transfer	Whether mitigation and Requirements bind NGET or another transferee	Controls may become ineffective if obligations remain only with the Applicant	SNC; NGET	Transfer provisions carrying every relevant environmental obligation

4.10.3 The uncertainties cannot be considered independently

The Applicant may contend that each individual matter is a conventional question of detailed design. That does not address the combined effect of the retained flexibility.

At Site 1, for example, the final development could include:

- trackers reaching 4.5 metres and changing angle throughout the day;
- an undefined BESS capacity and number of battery enclosures;
- project 400 kV infrastructure subject to the applicable approximately 13-metre busbar parameter, together with the separate National Grid substation capable of reaching 15 metres;
- a National Grid substation occupying up to six hectares;
- up to four new pylons reaching approximately 61 metres;
- high-voltage cable infrastructure;
- permanent and emergency lighting;
- acoustic barriers;
- and substantial drainage and access works.

The final massing, appearance, noise, fire risk, drainage requirement, aviation interaction and construction demand of that combined complex cannot be established merely by considering each individual maximum in isolation.

The same applies below ground. The Scheme may combine:

- solar piles up to four metres;
- BESS and substation piles up to 12 metres;
- cable trenches up to two metres deep;
- trenchless works reaching 12 metres;

- joint bays;
- drainage;
- dewatering;
- and existing utility infrastructure.

Norfolk County Council and the Environment Agency are therefore correct to identify cumulative uncertainty concerning underground works. A separate assessment of piling, cabling and drainage does not necessarily assess their combined operation within the same geological and hydrological area.

4.10.4 Discipline-specific worst cases may not produce a controlled whole-project worst case

The Applicant states that each environmental discipline selected the design option it considered to represent its relevant worst case. That may be appropriate for individual topics, but it is reliable only if the DCO prevents a combination of parameters that would produce materially different or greater effects overall.

For example:

- a landscape assessment may treat trackers as the worst case because of their height;
- a runoff assessment may rely on fixed panels because of their continuous drip line;
- an ecology assessment may assume a different row spacing;
- and an aviation assessment may depend upon a particular panel orientation or reflective characteristic.

The Applicant must show that the final permitted combination of:

- panel type;
- panel height;
- spacing;
- orientation;
- drainage;
- fencing;
- access;
- and lighting

was either assessed directly or cannot produce effects worse than the separate scenarios considered.

A collection of discipline-specific worst cases is not necessarily a whole-project worst case. The application therefore requires a configuration audit showing that no permitted combination falls between or outside the scenarios assessed.

4.10.5 The final ES may not consistently use the final design

The design continued to evolve after statutory consultation. The Site 1B project substation changed from the smaller 132 kV installation presented during consultation

to a 400 kV installation with an approximately 13-metre busbar parameter, while the adjacent National Grid substation is subject to a separate 15-metre maximum. ISH1 has required correction of inconsistent presentation of those parameters. The National Grid substation increased from approximately three hectares at consultation to a maximum of six hectares. New pylons may reach approximately 61 metres. Further panels and land were added.

The Applicant should provide a chapter-by-chapter schedule identifying:

- the design version assessed;
- the date of the assessment;
- the maximum parameter used;
- and whether it was updated following the targeted consultation.

The schedule should cover, at minimum:

- landscape and visual effects;
- heritage;
- noise;
- glint and glare;
- aviation;
- transport;
- flood risk and drainage;
- groundwater;
- ecology;
- archaeology;
- major accidents;
- and cumulative effects.

Where an earlier parameter was retained, the Applicant must demonstrate why it remained a valid worst case.

4.10.6 The envelope cannot cure uncertainty over the identity of the connection solution

The most serious issue is the proposed National Grid connection.

A Rochdale Envelope may permit NGET to choose switchgear or refine equipment positions within a confirmed substation compound. It cannot determine after consent:

- whether Site 1B is the final point of connection;
- whether NGET will construct or use the proposed substation;
- whether other Gate 2 projects require a different configuration;
- whether a larger or differently located solution is needed;
- or whether the Applicant remains responsible for providing the land and consent.

Those are questions about the identity, necessity and delivery of the development, not its detailed design.

NGET's evidence that DCO consent would not oblige it to use the Site 1B substation demonstrates why this cannot be treated as ordinary Rochdale flexibility. The Applicant seeks consent and compulsory powers for a specific connection solution without confirmation from the future operator that this is the solution it will implement.

4.10.7 The envelope cannot cure severability

The Scheme is presented as an integrated solar, BESS and grid-connection project. However, the DCO appears capable of permitting different components to be commenced, delayed, reduced or omitted independently.

A design envelope controls how an authorised work may be constructed. It does not determine whether that work must be constructed.

The Applicant must therefore establish whether the Order permits:

- solar without BESS;
- reduced or partial BESS;
- BESS constructed many years later;
- solar works before the National Grid solution is confirmed;
- omission of individual project substations;
- cable works before their final destination is fixed;
- or construction of connection infrastructure that NGET does not adopt.

Those are realistic implementation scenarios. They require a severability and phasing assessment separate from the ordinary detailed-design envelope.

4.10.8 Broad associated-development powers increase the uncertainty

The numbered works are supplemented by broad associated-development powers covering:

- earthworks;
- bunds;
- embankments;
- trenches;
- tunnelling;
- boring and drilling;
- drainage;
- services;
- accesses;
- private-track works;
- and mitigation works.

Norfolk County Council's LLFA has identified inconsistent uses of 'associated development' and a lack of clarity concerning the 'arrangement' of major components.

Where Work Areas overlap and associated works may be placed broadly, it is not sufficient to specify only the maximum dimension of the principal structure. The DCO must also control:

- the compound serving it;
- the access;
- hardstanding;
- drainage;
- temporary works;
- lighting;
- landscaping;
- and construction footprint.

Otherwise, the real development envelope is materially wider than the principal dimensions stated in Table 4.1.

4.10.9 The Works Plans do not provide an adequate geographical control

The Works Plans define broad geographical areas but do not fix much of the final infrastructure within those areas. The known use of outdated base mapping, including omission of the operational Long Stratton Bypass, further undermines their reliability.

The mapping inconsistencies across the application also make it difficult to confirm:

- the relationship between Work Nos.;
- the relationship with existing roads and infrastructure;
- the extent of cumulative development;
- the location of sensitive receptors;
- and whether the environmental figures use the same geography as the certified plans.

A broad Work Area cannot provide a sufficient Rochdale control where movement within it could materially change effects on:

- a dwelling;
- heritage asset;
- aerodrome;
- watercourse;
- gas pipeline;
- ancient woodland;
- or public right of way.

Sensitive areas should be protected by certified exclusions and restricted limits of deviation.

4.10.10 The Design Principles cannot substitute for absent parameters

The Design Principles, Parameters and Commitments document may properly control matters such as materials, finishes, orientation and local layout. It cannot substitute for an essential maximum parameter that has not been stated.

A requirement that development must have effects ‘no worse than’ those assessed is difficult to apply where the application does not identify:

- the BESS capacity against which fire and noise effects are measured;
- the number of battery enclosures;
- the number and oil content of transformers;
- the number of cable circuits;
- the maximum widened working area;
- the maximum number of construction compounds;
- or the final connection solution.

The hearing evidence confirms the practical significance of those omissions. The Applicant was unable to identify a fixed Scheme-wide number or final location for the conversion units and switchrooms and accepted that these would be determined through detailed design. The ExA expressly raised the risk of visual accumulation or “clutter”. A maximum dimension for an individual unit therefore does not define the whole effect; the DCO also needs to constrain the number, distribution and relationship of those units to sensitive receptors.

The controls must be objective, measurable and capable of enforcement without reconstructing assumptions from multiple technical chapters.

4.10.11 ‘Substantially in accordance with’ weakens the control further

The Environment Agency objects to the use of the expression ‘substantially in accordance with’. Its concern is particularly important in this application.

The present structure appears to combine:

1. broad Work Areas;
2. overlapping works;
3. generic associated-development powers;
4. substantial equipment and layout flexibility;
5. outline management documents;
6. and an undefined ability to depart substantially from those documents.

The cumulative result risks authorising development outside the precise assumptions relied upon in the Environmental Statement.

The final DCO should require accordance with the maximum parameters and environmental commitments. Any amendment mechanism should be narrowly defined and should require evidence that the change would not:

- produce new or materially different significant effects;
- affect another land interest;
- undermine mitigation;
- or alter the compulsory-acquisition justification.

4.10.12 Required parameters, assessment and control schedule

The Applicant should provide a final consolidated schedule for every material Scheme component. The schedule should state:

Required field	**Information to be supplied**
Component	The physical or operational element
Work No.	The authorised work under which it falls
Maximum parameter	Maximum height, area, capacity, number, depth or other relevant limit
Minimum parameter	Any minimum implementation needed to support the benefits case
Location	Fixed location or limits of deviation
Technology	Technology or range of technologies permitted
Assessment assumption	Exact design used in each environmental chapter
Environmental worst case	Why the selected assumption represents the realistic worst case
Consultation version	Parameter presented at statutory and targeted consultation
Final version	Parameter now sought
DCO control	Requirement, article or certified plan securing it
Approval body	Body approving detailed design
Responsible undertaker	Applicant, NGET or another body
Severability	Whether the component may be delayed, reduced or omitted
Replacement	Permitted replacement frequency and technology limits
Decommissioning	Removal or retention obligation

This schedule should reconcile:

- ES Chapter 4;
- ES Chapter 5;
- the Works Plans;
- the Land Plans;
- the Design Principles, Parameters and Commitments document;
- the Commitments Register;

- the draft DCO;
- the outline management plans;
- the Book of Reference;
- and the final technical assessments.

4.10.13 Required DCO controls

The DCO should, at minimum:

1. identify any locations in which environmental assessment requires a particular panel technology or excludes another, and otherwise demonstrate that each permitted technology remains within the assessed reasonable worst case;
2. prohibit or restrict trackers in aviation, heritage, landscape and residentially sensitive areas;
3. limit the number of panels, conversion units, inverters and transformers;
4. define the environmental performance envelope applicable to any permitted battery technology, including capacity, duration where material, dimensions, noise, thermal characteristics, fire and pollution-control parameters;
5. fix the number, configuration, equipment, oil inventory, footprint and height of each project substation;
6. prevent commencement of the National Grid substation, pylons and export cables until NGET confirms the final connection solution;
7. fix the maximum number, height and approved alignment of pylons;
8. fix the number of cable circuits, trench number, working width, joint-bay number and crossing locations;
9. require approval of all HDD and trenchless methods within fixed maximum dimensions;
10. limit the number, footprint and simultaneous use of construction compounds and laydown areas;
11. secure construction-equivalent controls for panel, BESS, transformer and cable replacement;
12. require a definitive removal and retention schedule for decommissioning;
13. secure panel-free aviation areas, reflectivity limits and operational safeguards;
14. incorporate agreed NGT protective provisions and plot-specific exclusions;
15. correct and reconcile the certified plans;
16. remove or narrowly define ‘substantially in accordance with’;
17. prevent unassessed partial or severed implementation;
18. ensure that all environmental obligations bind any transferee, including NGET;
19. prohibit speculative, duplicate or stranded infrastructure;
20. and require further consent for any materially different connection solution or technology outside the assessed envelope.

4.10.14 Evaluative conclusion

The Rochdale Envelope relied upon by the Applicant is insufficiently defined and controlled.

The difficulty is not simply that some equipment selections remain open. The combined effect of the retained flexibility is that different configurations could produce materially different environmental and operational consequences without a clear demonstration that each falls within the assessed worst case.

The application retains uncertainty over matters central to the identity and effects of the Scheme, including:

- the solar technology deployed in each field;
- the number and density of panels and electrical units;
- the capacity, duration and chemistry of the BESS;
- the number and configuration of transformers and substations;
- the final National Grid connection location and design;
- the number and alignment of cable circuits;
- the scale and concurrency of construction infrastructure;
- the timing and nature of replacement works;
- and the permanent infrastructure retained after decommissioning.

These uncertainties are cumulative. A final design combining the maximum tracker, BESS, substation, pylon, cable, compound and replacement parameters may produce a materially different whole-project outcome from the separate scenarios assessed by individual technical disciplines.

The Applicant has not yet provided a transparent audit demonstrating that:

- every material parameter has been identified;
- the final parameter was used in each relevant assessment;
- every permitted combination remains within the assessed worst case;
- and every limit is secured by an enforceable DCO control.

Uncertainty over whether Site 1B will form the final NGET connection solution cannot be cured through a Rochdale Envelope. Nor can the envelope cure uncertainty over whether the BESS, substations or connection works must be constructed at all.

The Examining Authority should therefore require a complete parameters, assessment and controls schedule. Any parameter that cannot be demonstrated to have been assessed and secured should be fixed, restricted or removed from the authorised development. Where the uncertainty concerns the location, necessity or identity of an essential work, consent should not be granted on the basis that the matter can be resolved as detailed design after the Order is made.

4.11 Aviation-sensitive design parameters and Site 1

4.11.1 Scope of this section

The full aviation-safety case is addressed in Chapter 18. This section concerns whether the physical design envelope for Site 1 was developed and controlled with adequate regard to the operational and emergency-landing environment around Tibenham Airfield. This question belongs within the Scheme Description because the aviation consequences depend upon the final:

- extent of the solar arrays;
- panel technology;

- panel height;
- panel orientation;
- tracker movement;
- panel reflectivity;
- fencing;
- lighting;
- substation structures;
- pylon positions;
- and construction-crane envelope.

The Applicant cannot demonstrate that aviation effects are controlled merely by undertaking a glint-and-glare calculation against an indicative solar layout. The DCO must define a final development envelope that cannot later be altered in a way that creates greater aviation risk.

4.11.2 Relationship between Site 1 and Tibenham Airfield

Tibenham Airfield is an active aerodrome used by Norfolk Gliding Club for gliding and powered-aircraft operations. The Club's evidence states that the closest part of Site 1 lies approximately 1.5 to 1.6 kilometres from the relevant east–west runway threshold and that solar development lies on or close to the extended runway centreline. The Club also explains that actual operations cannot be represented adequately by a single standard powered-aircraft circuit because Tibenham accommodates mixed glider and powered-aircraft activity and operates in an environment constrained by other nearby aviation activity.

The proximity matters because the Site 1 design includes or lies close to:

- extensive solar arrays;
- the BESS compound;
- a 400 kV project substation;
- the proposed National Grid substation;
- overhead-line diversion works;
- new pylons;
- cable infrastructure;
- construction compounds;
- access roads;
- security fencing;
- and operational or emergency lighting.

The final Scheme parameters permit tracker panels up to 4.5 metres high at maximum inclination, fixed panels up to 3.5 metres, a Site 1B project substation up to 15 metres, a National Grid substation occupying up to six hectares and new pylons up to 61 metres high.

The aviation issue is therefore not confined to solar reflection. It concerns the complete change in the obstacle and emergency-landing environment created by the combined Site 1 infrastructure.

4.11.3 The original glint-and-glare work pre-dated meaningful engagement

Norfolk Gliding Club states that the original Pager Power assessment was dated March 2024, but that Pager Power did not contact the Club until October 2024 to seek operational information. The Club's position is therefore that the original assessment was prepared before the consultant had obtained information from the aerodrome operator about the actual mixed gliding and powered-aircraft operations at Tibenham.

NGC states that it subsequently explained:

- the mixed nature of flying activity;
- actual circuit patterns;
- the effect of Priory Farm Airfield to the west;
- the need for gliders to adapt their circuits to wind, lift, sink and traffic;
- and the fact that gliders cannot simply go around following an unstable or obstructed approach.

The Club considers that the Applicant's consultant nevertheless continued to rely upon an overly simplified operational model derived from powered-aircraft circuit assumptions.

GAAC similarly states that the Applicant did not engage adequately and directly with the operator of Tibenham Aerodrome and did not provide a properly site-specific appraisal of its operations. GAAC considers that the assessment should have addressed the actual aviation environment rather than treating the issue principally as a generic glint-and-glare exercise.

The significance for Chapter 5 is that the Site 1 layout may have been developed before the relevant operational constraints were understood. The Applicant must therefore demonstrate that the final Site 1 design was revisited after receiving the Club's evidence, rather than merely adding a later report to support a substantially fixed layout.

4.11.4 Norfolk Gliding Club's allegation concerning Pager Power

NGC has made a serious allegation about the provenance and adequacy of Pager Power's work. The Club states that it was told that an assessment had been based on work undertaken previously for a powered-aircraft airfield and adapted for Tibenham. BEPS does not adopt an allegation of falsification as an independently established fact. It records the allegation because it is relevant to the reliability of the design evidence and should be answered directly by the Applicant and Pager Power.

The Applicant should therefore provide:

- the original terms of instruction;
- the chronology of each aviation assessment;
- the data supplied before the March 2024 report;
- the modelled runway and circuit assumptions;

- all subsequent revisions;
- the source files and model inputs;
- and a clear explanation of how Tibenham-specific operations were incorporated.

The issue is not resolved by a general assertion that the consultant has experience of solar glint and glare. The relevant question is whether the final design was tested against the actual operational circumstances of this aerodrome.

4.11.5 Wider operational risks identified by NGC

NGC states that the relevant aviation risks include:

- glint and glare;
- engine failure after take-off;
- glider launch failure;
- aborted aerotow;
- thermal updraft effects;
- turbulence or wind shear;
- bird strike;
- and loss of usable emergency-landing land.

The Club's objection is that the original assessment concentrated principally on glint and glare and did not provide an adequate operational assessment of those wider risks.

For Chapter 5, the relevant point is not to determine the final aviation merits. It is that each of those risks may require a different design response.

For example:

- glare risk may require limits on orientation, reflectivity or tracker movement;
- emergency-landing risk may require panel-free land;
- bird-strike risk may affect habitat and waterbody design;
- turbulence concerns may affect structure location;
- and obstacle concerns may affect pylons, substations, lighting and cranes.

The design envelope should therefore identify the aviation constraint first and secure the corresponding physical restriction. It should not defer the existence and extent of mitigation until after consent.

4.11.6 The photographic and mapped evidence

The submitted photographic appendix illustrates the relationship between the runway, Site 1 and the surrounding proposed energy developments. It includes mapping said to show:

- the extended runway centreline;
- an approximately 60-degree departure or emergency sector;
- an asserted EFATO or launch-failure area extending from the runway;
- East Pye solar and BESS development;

- other solar or energy developments;
- and land said to be unavailable or unsuitable for emergency landing.

The mapping is material because it illustrates the cumulative reduction in open land within the relevant operational sector. However, the map must be treated as explanatory evidence rather than accepted uncritically as a regulatory safeguarding plan.

The Applicant should respond by producing a georeferenced plan agreed, so far as possible, with the aerodrome operator showing:

- runway thresholds;
- extended runway centrelines;
- normal and variable circuit areas;
- launch and aerotow paths;
- realistic emergency-landing sectors;
- existing obstacles;
- proposed solar arrays;
- fences;
- substations;
- pylons;
- lighting;
- other committed developments;
- and land retained free from development.

The cockpit photograph illustrating severe low-angle glare is similarly relevant as an illustration of the type of visual effect that may concern a pilot. It does not, by itself, prove that East Pye would create glare of that intensity at a specified location or time. That requires site-specific modelling using the final panel design.

4.11.7 Was the emergency-landing environment incorporated into Site 1 design?

The Applicant must explain whether the Site 1 design process treated emergency-landing land as a design constraint.

The questions are:

1. Was land beneath or close to the extended runway centreline mapped as a potential emergency resource?
2. Were EFATO, glider launch failure and aborted aerotow scenarios considered before the panel areas were selected?
3. Was the suitability of fields assessed by reference to size, slope, crop, obstacles, fences and approach?
4. Were cumulative losses from other solar and BESS schemes considered?
5. Was any solar area removed or reduced in response?
6. Was the Club asked to identify the land of greatest operational importance?
7. Is any such land protected by the Works Plans or DCO Requirements?

An assessment that calculates only the percentage of a broad sector occupied by panels may not answer whether the development removes the particular land realistically reachable during an emergency. The location and configuration of obstacles may be more important than the overall percentage of land remaining open.

4.11.8 No defined aviation-safe maximum panel extent

The DCO identifies broad solar Work Areas but does not appear to define a separate aviation-safe maximum panel extent around Tibenham. That creates a risk that the final detailed design could:

- increase panel coverage toward the runway centreline;
- infill open areas shown on indicative plans;
- substitute trackers for fixed panels;
- relocate fencing;
- add conversion units;
- or move internal access and drainage into land relevant to emergency use.

A maximum solar envelope cannot be considered aviation-safe merely because it lies within the outer Work No. 1 boundary. The relevant control must identify the parts of the Work Area in which panels and other obstacles are prohibited.

The Applicant should therefore provide a certified Aviation Safeguarding Plan for Site 1 showing:

- land on which no solar panels may be placed;
- land on which trackers are prohibited;
- development-free emergency corridors;
- maximum fence positions;
- limits on electrical compounds;
- lighting restrictions;
- crane consultation zones;
- and the relationship with substations and pylons.

4.11.9 Is there a panel-free corridor?

No binding panel-free corridor has yet been identified in the evidence considered by BEPS. The need for such a corridor should be determined through a site-specific operational assessment undertaken with NGC. The correct geometry may not be a simple rectangle along the runway centreline. It may need to reflect:

- runway use;
- wind direction;
- aerotow paths;
- winch-launch failure;
- glider performance;
- surrounding obstacles;
- other airfields;
- and land suitability.

If the evidence demonstrates that defined land is reasonably required to preserve emergency options, that land should be excluded from:

- solar panels;
- fences;
- CCTV;
- substations;
- drainage basins;
- planting that creates obstacles;
- and other structures.

A statement that sufficient agricultural land remains elsewhere would not constitute equivalent mitigation unless that land is realistically usable in the relevant emergency.

4.11.10 Tracking panels must be assessed expressly

ES Chapter 4 permits tracker panels throughout the solar development unless more specific restrictions apply. Trackers may reach 4.5 metres at maximum inclination, align in north–south rows and move east or west by up to 60 degrees from horizontal. Trackers are not equivalent to fixed panels for aviation purposes. Their:

- angle;
- apparent surface area;
- reflected-light direction;
- obstacle profile;
- and visual presentation

change during the day.

The Applicant should establish:

- whether tracker panels were modelled throughout their full operational movement;
- whether all relevant seasons and times were considered;
- whether the model used their maximum height and inclination;
- whether simultaneous reflections from multiple fields were assessed;
- whether stow positions were considered;
- and whether control-system failure could leave panels at a problematic angle.

If fixed panels represent a lower-risk option near the aerodrome, the DCO should prohibit trackers in the relevant Site 1 fields rather than leave the choice to detailed design.

4.11.11 Panel orientation and movement require binding controls

The glint-and-glare result depends upon the final panel:

- azimuth;
- tilt;
- tracking algorithm;

- movement range;
- backtracking behaviour;
- stow angle;
- and surface characteristics.

These matters cannot be left solely to manufacturer selection where aviation safety is disputed.

The DCO should define:

- permitted row orientation;
- maximum tilt;
- maximum tracker movement;
- mandatory backtracking or stow protocols where necessary;
- and any time-based operating restrictions required by the final safeguarding assessment.

Any later alteration to the tracking algorithm or replacement panel design should remain within the assessed aviation envelope.

4.11.12 Reflectivity is not adequately controlled by colour alone

ES Chapter 4 states that the panels will be bifacial and dark in colour. Colour is not a complete control on glare.

The Applicant should specify:

- maximum specular reflectance;
- maximum hemispherical reflectance;
- anti-reflective coating standard;
- surface roughness or treatment;
- degradation assumptions;
- and replacement-panel equivalence.

The control should apply to both faces of bifacial modules and to replacement panels installed during the proposed 60-year operating period.

A later statement that the selected product is ‘typical’ or ‘low reflective’ would not provide an objective, enforceable standard.

4.11.13 Fencing and obstacles within emergency areas

Even where a pilot could theoretically land between or near panels, fencing may make the land unusable or materially more hazardous.

Site 1 may include:

- deer fencing up to 2.5 metres;
- palisade fencing up to 3 metres;

- CCTV poles;
- electrical equipment;
- drainage features;
- access tracks;
- and planting.

The aviation assessment should therefore consider the complete obstacle environment, not panel surfaces alone.

Any land relied upon as retained emergency-landing space must be protected from later:

- fencing;
- hedgerow planting;
- woodland;
- drainage basins;
- equipment compounds;
- lighting columns;
- CCTV poles;
- or material storage.

4.11.14 Pylons and substations must form part of the aviation envelope

The Site 1 aviation assessment must also include the final electrical infrastructure.

The application permits:

- a project substation reaching 15 metres;
- a National Grid substation occupying up to six hectares;
- electrical structures reaching approximately 15 metres;
- and up to four new pylons reaching approximately 61 metres.

Those structures may affect:

- visual acquisition of obstacles;
- emergency route choice;
- approach and departure judgement;
- low-level powered-aircraft operations;
- and the cumulative concentration of obstacles.

The Applicant should show that the aviation assessment used the final 15-metre and 61-metre parameters, not the earlier lower substation design or existing pylon heights.

The assessment should also include construction cranes. Crane height and duration may exceed the permanent substation envelope and may create a temporary risk during sensitive construction phases.

4.11.15 Later design changes could worsen aviation risk

The current Rochdale Envelope allows later selection of:

- fixed or tracking panels;
- precise panel position;
- conversion-unit location;
- fencing;
- BESS equipment;
- substation layout;
- lighting;
- and other associated development.

Without aviation-specific restrictions, a later design could comply with the general maximum parameters while worsening risk to the aerodrome.

Examples include:

- replacing fixed panels with trackers;
- increasing panel extent toward the centreline;
- placing a conversion unit within an open strip;
- altering fence geometry;
- selecting a more reflective replacement module;
- changing tracker control;
- repositioning substation structures;
- or introducing taller construction cranes.

The standard ‘same or no worse than assessed’ formulation is not sufficient unless the aviation parameters against which ‘no worse’ is judged are objective and measurable.

4.11.16 The Examination has now treated aviation as a wider safety issue

ISH1 materially developed the aviation issue beyond the Applicant’s original focus on glint and glare. The ExA required the Applicant to identify what aviation matters beyond glint and glare had been scoped out and why, and to produce a standalone aviation-safety document.

The resulting examination issue expressly extends to matters raised concerning emergency landing and engine-failure-after-take-off scenarios, glider launch, obstacles, turbulence or wind effects and the interaction of panels, fencing, substations, pylons and BESS with the operational environment of Tibenham Airfield.

This materially strengthens BEPS’s existing submission that aviation-sensitive parameters must be treated as design constraints rather than matters to be considered only after the solar layout and electrical infrastructure have otherwise been fixed.

4.11.17 Required aviation design evidence

The Applicant should provide:

1. a site-specific aviation safeguarding assessment prepared with direct input from NGC;
2. a complete chronology of the Pager Power assessments and consultation;
3. the precise operational data used;
4. a georeferenced obstacle and emergency-landing plan;
5. tracker-specific and fixed-panel-specific glare modelling;
6. modelling of cumulative solar development;
7. assessment of the 15-metre substations and 61-metre pylons;
8. construction-crane safeguarding;
9. an assessment of fencing, planting and other obstacles;
10. and a clear response to the photographic and mapped evidence submitted by the Club.

The assessment should distinguish between:

- normal operations;
- engine failure after take-off;
- glider launch failure;
- aborted aerotow;
- unusual circuit variation;
- and other foreseeable non-routine events.

4.11.18 Required DCO controls

The DCO should provide that:

1. No solar or grid works at Site 1 may commence until an Aviation Safeguarding Plan has been approved.
2. NGC and GAAC must be consulted on that plan.
3. Certified panel-free or development-free areas must be shown where required by the assessment.
4. Trackers must be prohibited in specified areas unless demonstrated to be no worse than fixed panels.
5. Panel height, orientation, movement and reflectivity must be controlled objectively.
6. Replacement panels must meet the same or more protective reflectivity standard.
7. Fencing, CCTV, drainage, planting and compounds must be prohibited in safeguarded emergency areas.
8. Substation and pylon positions and heights must remain within the assessed aviation envelope.
9. Cranes and other tall temporary plant must be subject to an aerodrome-notification and approval protocol.
10. Lighting must comply with aviation-specific limits.
11. No material amendment may reduce retained emergency-landing land.
12. Any unresolved disagreement must be recorded in the NGC/GAAC Statement of Common Ground.

4.11.19 Conclusion

Site 1 is aviation-sensitive because of its proximity and operational relationship to Tibenham Airfield. NGC states that it lies approximately 1.5 kilometres from the east–west runway threshold and on or close to the extended runway centreline. It further states that the original glint-and-glare assessment pre-dated meaningful consultation with the aerodrome operator and did not initially reflect the mixed gliding and powered-aircraft operations at Tibenham. GAAC similarly identifies inadequate engagement and the absence of a sufficiently site-specific operational assessment. The design question is therefore whether the final Site 1 envelope was altered and controlled in response to the actual aviation environment.

The application does not yet demonstrate:

- an aviation-safe maximum panel extent;
- a binding panel-free corridor;
- a tracker-specific worst case;
- objective reflectivity controls;
- protection of emergency-landing land;
- or a complete aviation assessment of the panels, fences, substations, pylons, lighting and cranes as one obstacle environment.

Those matters should be resolved through direct engagement with NGC and secured by an Aviation Safeguarding Plan and express DCO restrictions. They should not be left to ordinary detailed design after the principle and outer extent of Site 1 development have already been authorised. If it is not possible for NGC to agree an Aviation Safeguarding Plan with the infrastructure at Site 1, an alternative location for this infrastructure should be found which is safe for aviation, or the project should not be recommended for approval.

4.12 Construction description and missing quantities

The Environmental Statement must assess the construction project actually authorised by the DCO, not merely describe the typical activities involved in building a large solar scheme.

East Pye's construction description contains useful assumptions. It anticipates an approximately 24-month construction period, commencement in 2028, completion by the end of 2030 and energisation in 2031. It also assumes, for assessment purposes, substantial concurrency between Scheme elements and estimates an average workforce of 278 workers per day, equivalent to approximately 233 full-time jobs.

Those assumptions do not, however, amount to a complete quantified construction envelope.

Important parameters remain dispersed across chapters, expressed only indicatively or deferred to later management plans. As a result, it is difficult to establish whether the

transport, noise, air quality, groundwater, drainage, materials, waste and carbon assessments are all based on the same maximum construction case.

The issue is therefore not whether every contractor detail must be fixed now. It is whether the DCO defines the reasonable worst-case construction project with sufficient precision for its likely significant effects to have been assessed.

4.12.1 Programme, phasing and simultaneous construction

The stated 24-month programme is indicative rather than an absolute DCO limit. The Applicant should therefore explain whether that period includes all solar Sites, the BESS, all fourteen Cable Route Corridors, the project substations, National Grid works, commissioning and energisation, or whether substantial elements may be constructed later.

That uncertainty matters because the BESS remains at Gate 1, the NGET connection solution is unresolved and the Scheme may be implemented in stages. Chapter 4 itself states that subsystems may be commissioned separately or simultaneously depending on the technology and programme adopted.

The environmental assessment should therefore distinguish the principal construction phase from delayed BESS works, delayed NGET works, commissioning, replacement and eventual decommissioning. Otherwise a Scheme capable of generating several major periods of construction disturbance is presented as though it comprised one approximately 24-month event.

The same problem arises at Site level. The application does not provide a consolidated programme showing how long each solar Site, cable corridor, substation, compound, BESS work area, pylon location or highway intervention may remain active.

Local effects depend on duration at receptors rather than only on the Scheme-wide programme. A resident may experience access works, piling, cable trenching, HGV traffic, substation construction and reinstatement consecutively or concurrently. The maximum duration and overlap of those activities should therefore be identified.

Nor is maximum workforce concurrency necessarily the environmental worst case. Different effects may arise from different combinations of activity. The maximum workforce may not coincide with the maximum number of piling rigs, HGV streams, HDD operations, concrete pours, dewatering locations or simultaneous cable trenches.

The Applicant should therefore identify the maximum simultaneous work fronts and the construction scenario relied upon for each environmental topic.

ISH1 has since required greater clarity concerning construction-compound phasing and the maximum simultaneous development case. That reinforces the need for a

programme-linked worst-case scenario rather than a nominal overall construction duration.

4.12.2 Construction sequencing must reflect environmental and safety dependencies

The construction sequence is itself environmentally material.

Access, drainage and ecological safeguards may need to precede intrusive works. Firewater containment and emergency access must be available before hazardous BESS equipment is introduced. NGET works may need to reach a defined stage before the generating station can be commissioned.

The present BESS sequence is particularly important because Chapter 4 describes battery, inverter and switchgear installation before completion of fire-safety measures. The Environment Agency has objected to that approach and seeks appropriate sealed containment and fire-safety infrastructure before battery equipment is introduced.

The DCO should therefore secure essential construction hold points. In particular, drainage isolation, firewater containment, emergency access, fire detection and any required suppression or cooling systems should be completed and tested before battery units are brought onto the BESS compound.

The same principle applies elsewhere: environmental protection should precede the activity creating the risk, not follow it.

4.12.3 Workforce and traffic assumptions require reconciliation

The workforce and transport assumptions should also be reconciled in one authoritative construction scenario.

Chapter 4 gives the average workforce figure of 278 workers per day, while the transport assessment relies on separate assumptions concerning vehicle occupancy, shuttle buses, car sharing, parking and arrival patterns.

The Applicant should identify the peak workforce, maximum simultaneous workforce and the resulting maximum vehicle demand. Where traffic mitigation depends upon car sharing, shuttle buses, parking restrictions or travel planning, those assumptions should be secured rather than left as aspirational behavioural measures.

The same issue arises with HGV traffic.

The application provides average and peak figures for particular Sites and cable works, but the relevant assessment must establish the maximum total and route-specific daily and hourly movements where different construction activities overlap.

That should include the full range of construction traffic: articulated and rigid HGVs, concrete mixers, tippers, tankers, fuel bowsers, cranes, LGVs, minibuses, shuttle buses and private cars.

Statements that deliveries will avoid peak periods “where practicable” do not themselves impose a traffic limit. If the assessment depends upon restricted timing, those restrictions should be secured.

The actual shift pattern also matters. Core works beginning at 07:00 may generate a worker traffic peak before the conventional 08:00–09:00 network peak, while departures may occur after 18:00. The traffic assessment should therefore reflect the Scheme’s own operational peaks rather than only standard highway peaks.

4.12.4 Abnormal-load construction remains insufficiently quantified

The BESS, project substations, National Grid substation and transmission works may require abnormal indivisible loads.

The construction description should therefore identify the principal AIL components, their anticipated dimensions and weights, number of deliveries, destinations, routes, crane requirements and any temporary highway works required.

This is particularly important because Chapter 4 permits abnormal-load movements outside normal construction hours. Unless the number and timing of such movements are bounded, occasional exceptions may in practice become a recurring source of night-time or early-morning disturbance.

The AIL assumptions should therefore be reconciled with the transport chapter and secured through the DCO or CTMP.

4.12.5 Solar piling is not sufficiently quantified

The solar mounting structures may use piles up to approximately four metres deep, but the application does not provide a consolidated maximum number of piles, piles per Site, pile section or diameter, installation rate, number of rigs operating simultaneously, duration of piling at individual receptor areas or the proportion of foundations likely to require an alternative method.

Those parameters are directly relevant to noise, vibration, archaeology, soil disturbance, groundwater and construction traffic.

The application also retains flexibility between driven piles, screw piles and other foundation methods. Those techniques may differ materially in noise character, vibration, duration, plant requirements and below-ground disturbance.

The treatment of refusal is similarly important. Pre-drilling, relocation, screw piles, concrete feet or excavation do not have identical effects.

The Applicant should therefore define the assessed foundation envelope rather than leaving the response to ground conditions wholly to detailed design.

4.12.6 Deep foundations for BESS and substations require the same discipline

The BESS, project substations and National Grid substation may require foundations or piles extending to approximately 12 metres.

No consolidated maximum is provided for pile number, diameter, spacing, rig numbers, concrete volume, spoil generation or installation duration.

That omission is material because the Environment Agency has sought location-specific foundation-risk assessment and Norfolk County Council has raised concerns about cumulative below-ground effects from foundations, drainage and cables.

Revision 2 of the draft DCO has widened, rather than narrowed, this uncertainty by amending Work No. 2 expressly to permit flexibility in the type of piling used for the BESS, including possible steel piling.

The Applicant should therefore identify the maximum piling parameters encompassed by the ES assessments and demonstrate that every foundation system authorised by the DCO remains within those effects.

4.12.7 Concrete and civil works need a quantified maximum

Revision 2 now expressly includes “foundations” within the authorised descriptions of solar conversion infrastructure, project substations and the National Grid substation.

The application contemplates concrete feet, plinths, slabs, reinforced BESS bases, substation foundations, pile caps, control buildings and joint bays, yet provides no scheme-wide maximum concrete volume.

That omission has consequences for HGV demand, construction duration, water use, pollution risk, embodied carbon and decommissioning.

The Applicant should therefore provide maximum concrete quantities by principal component, together with the corresponding delivery assumptions and pollution-control arrangements. This is particularly important given the Environment Agency’s concern that the application contains insufficient detail concerning concrete activities and associated pollution prevention.

4.12.8 Cable excavation and below-ground works are not fully quantified

The Scheme contains extensive internal, 33 kV, 132 kV and 400 kV cabling, together with joint bays, fibre chambers and trenchless crossings.

Although individual trench and joint-bay dimensions are provided in places, the application does not state the total maximum trench length, excavation volume, simultaneous open-trench length, aggregate bedding, imported fill or displaced spoil.

Those quantities matter because cable construction is one of the Scheme's principal sources of soil disturbance, groundwater interaction, haul-road requirements, spoil generation and construction traffic.

The Applicant should therefore quantify the maximum below-ground construction envelope across the Scheme, not merely the dimensions of an individual trench section.

4.12.9 HDD and trenchless construction remain underdefined

The application treats HDD as a reasonable worst-case trenchless method and allows launch and reception areas of approximately 25 metres by 25 metres, with drilling structures up to approximately six metres high.

However, it does not provide the maximum number of HDD operations, simultaneous operations, bore lengths, number of bores at each crossing, duration, water demand or drilling-fluid volumes. It also retains other possible methods, including tunnelling, pipe jacking and auger boring.

Those alternatives may have different noise, groundwater, spoil and construction-compound implications.

The Environment Agency has specifically raised concerns about drilling-fluid management, while South Norfolk Council has identified uncertainty over HDD operations and noise.

The Applicant should therefore provide a crossing schedule defining the assessed trenchless construction envelope.

The same applies to drilling fluids. Monitoring for loss of returns and stopping work after a leak is detected is an incident response, not a complete risk assessment. The maximum fluid volumes, composition, pressure, storage, recycling, disposal and frac-out controls should be established, particularly where crossings affect watercourses, groundwater or statutory infrastructure.

4.12.10 Dewatering is a potentially material but unquantified activity

Trenches, joint bays, foundations and HDD pits may all require dewatering, yet the application does not identify maximum pumping rates, durations, simultaneous locations, discharge volumes or treatment arrangements.

Those parameters are directly relevant to groundwater, private water supplies, contaminated land, watercourses and ground stability.

Given the Environment Agency's concerns regarding groundwater pathways and foundation and trenchless works, dewatering cannot safely remain an unspecified contractor matter.

A quantified reasonable worst case should be provided and reflected in the water assessment and relevant control plans.

4.12.11 Earthworks, compounds and hardstanding require clearer limits

Chapter 4 states that site-wide reprofiling is not anticipated but accepts that local levelling, excavation and platform construction will occur for substations, BESS, tracks, cable works and compounds.

The application does not provide a consolidated maximum for cut and fill, imported material, platform height, bunding or permanent ground-level change.

The same uncertainty applies to construction compounds and laydown areas. Their locations are often indicative, and the total number, cumulative footprint, impermeable area, hardstanding, duration and simultaneous operation are not comprehensively fixed.

Norfolk County Council's LLFA has specifically raised concern about incomplete compound information and associated drainage.

That matters because drainage design depends on the area, surfacing, duration and contaminant risk of the compounds concerned. A Rochdale envelope that leaves those parameters substantially undefined makes it difficult to verify the associated flood-risk and water-quality assessment.

The Applicant should therefore define maximum compound, laydown and hardstanding footprints and demonstrate that the corresponding drainage assumptions have been assessed.

Site 6 now requires particular clarification. Although solar development has been removed from Site 6, the Applicant proposes to retain construction-compound use there. The ExA has required explanation of that use, its possible operational reuse and its relationship with biodiversity land intended to mature over a 25-year period. A temporary construction function cannot simply be assumed compatible with long-term ecological commitments occupying the same or adjoining land.

4.12.12 Haul roads and temporary access also need a defined envelope

The Scheme requires internal solar tracks, cable haul roads, BESS and substation access, pylon access and temporary highway works.

No consolidated maximum is provided for total temporary haul-road length, aggregate requirement, statutory-apparatus crossings or temporary bridge requirements.

Those works are environmentally significant because they affect soils, drainage, hedgerows, watercourses and statutory infrastructure and generate substantial material movements.

The Applicant should therefore identify the maximum temporary and permanent access footprint, including width, surfacing, loading, drainage and restoration assumptions.

4.12.13 Pollution-control infrastructure cannot remain generic

Several construction-control measures remain described only at a generic level.

The Environment Agency has identified insufficient detail concerning wheel washing, fuel and chemical storage, drilling fluids and concrete activities.

For wheel washing, the construction case should identify the location, capacity and drainage arrangements of facilities and explain how wash water and silt are contained and disposed of.

For fuel and chemicals, the Applicant states that above-ground tanks will be bunded to 110% capacity but does not identify the maximum number or total pollutant inventory across compounds.

That matters because the reasonable worst case depends upon the amount and location of material capable of causing pollution, not merely the construction standard of the tank in which it is stored.

These inventories should therefore be quantified and reconciled with flood risk, watercourse proximity and the environmental management plans.

4.12.14 Welfare and water demand should reconcile with the workforce case

Chapter 4 estimates total construction water demand at approximately 16,872.2 cubic metres and a maximum potable demand of approximately 13.97 cubic metres per day. Tanker supply and self-contained welfare facilities are anticipated.

Those figures should be reconciled with the peak workforce and the traffic assessment.

The Applicant should demonstrate that the assumed water-storage, foul-water removal and tanker movements are consistent with the maximum construction population and do not generate additional traffic beyond that assessed.

4.12.15 Materials, spoil and waste remain only partially quantified

The application should also provide a more complete account of the principal material flows associated with construction.

Concrete, aggregate, sand bedding, steel, aluminium, panels, cabling, fencing, batteries, road stone, imported fill and transformer oil all have consequences for HGV movements, storage, carbon, waste and eventual decommissioning.

The same applies to excavated materials.

Chapter 4 anticipates reuse of spoil and removal of contaminated material where necessary, but does not provide maximum stockpile footprints, heights, durations or a reasonable worst-case contaminated volume.

Those matters are particularly important where stockpiles interact with drainage, soils or NGT easements.

Construction waste is also described largely in qualitative terms. Packaging, cable drums, pallets, plastics, timber, damaged panels, rejected batteries and hazardous absorbents should be included within the maximum construction waste case, with appropriate arrangements for damaged battery units.

4.12.16 Vegetation removal should be quantified as part of construction

Access works, AIL routes, visibility splays, cable works, compounds and grid infrastructure may require removal of hedgerows, trees, scrub and verge vegetation.

Those losses should be quantified as construction parameters rather than appearing only within landscape or ecology chapters.

South Norfolk Council has already raised concern regarding mature vegetation removal for temporary AIL purposes and effects within conservation areas.

The maximum construction case should therefore identify the hedge length, tree numbers and vegetation areas capable of removal, together with reinstatement assumptions.

4.12.17 Construction lighting and working hours require enforceable limits

The application anticipates mobile lighting towers of approximately 8 kVA and lighting at construction compounds but does not define the maximum number, height, operating hours, lux levels or duration at individual locations.

Those parameters are material in a dark rural landscape and in relation to bats, residents and aviation.

Working hours require similar precision.

The stated core hours are 07:00–18:00 Monday to Friday and 08:00–13:30 Saturday, with no routine Sunday or Bank Holiday working. However, start-up and shutdown are expressly excluded from those periods.

The Applicant should therefore define the earliest permissible start-up, latest shutdown and the activities and vehicle movements permitted during those periods.

The out-of-hours exceptions are also broad. HDD, abnormal-load deliveries, concrete pours, public-highway cable works and emergency activities may all occur outside normal hours.

Those exceptions should be bounded by maximum frequency or duration, notification arrangements and appropriate noise and lighting limits. 'Emergency' should not extend to ordinary programme recovery or commercial delay.

The ExA has separately required further information concerning operational and construction lighting. That evidence must identify not merely fixture types but the locations, duration, trigger conditions, illumination levels and environmental limits necessary to keep lighting effects within the assessed landscape, ecological, residential and aviation envelope.

4.12.18 Commissioning is a separate construction-stage effect

Commissioning may occur separately for solar, BESS and transmission infrastructure and may involve energisation testing, transformer operation, BESS cooling, alarms, lighting, emergency-system testing and associated traffic.

Where commissioning occurs outside normal construction hours or before the Scheme enters ordinary operation, its effects should be identified and controlled separately.

The Applicant should therefore state the maximum commissioning duration, hours and principal noise and lighting sources.

4.12.19 A consolidated Construction Parameters Schedule is required

The recurring difficulty across the construction description is not the absence of every contractor detail. It is the absence of one authoritative schedule identifying the maximum construction parameters relied upon across the Environmental Statement.

BEPS submits that the Applicant should provide a consolidated Construction Parameters Schedule covering, at minimum:

- overall and Site-specific duration;
- maximum simultaneous work fronts;
- peak workforce and traffic;
- HGV and AIL limits;
- pile numbers, methods and rigs;
- maximum concrete quantities;
- cable-trench and joint-bay excavation;
- HDD and drilling-fluid parameters;
- dewatering;

- earthworks;
- construction compounds and hardstanding;
- haul roads;
- water and welfare demand;
- pollutant inventories;
- materials, spoil and waste;
- vegetation removal;
- construction lighting;
- out-of-hours activity;
- and commissioning.

The purpose of that schedule is not administrative convenience. It is to demonstrate that each environmental chapter has assessed the same maximum construction project and that the DCO does not authorise a materially more intensive construction scenario.

4.12.20 DCO controls required

The final Order should secure the construction parameters material to the environmental conclusions.

That should include a maximum construction period and controlled phasing; Site-specific duration and concurrency limits where material; enforceable workforce and vehicle assumptions; HGV and AIL controls; quantified foundation, HDD, dewatering, compound and hardstanding envelopes; pollution and lighting limits; defined out-of-hours exceptions; appropriate BESS safety sequencing; and updated surveys and management plans where materially delayed components such as the BESS or NGET works are constructed substantially later than the baseline assessed.

Where a parameter was relied upon to reach a conclusion of no significant effect, it should not remain merely indicative.

4.12.21 Conclusion

East Pye's application provides a substantial narrative description of construction, but it does not yet provide one complete quantified account of the maximum construction project which the DCO would permit.

The principal uncertainties concern duration and phasing, simultaneous work fronts, piling, deep foundations, concrete, cable excavation, HDD, drilling fluids, dewatering, compounds, haul roads, pollutant inventories, spoil, vegetation removal, lighting, out-of-hours activity and commissioning.

Those matters are not simply contractor preferences. They determine the intensity, duration and location of effects assessed in the Environmental Statement.

The concern is reinforced by statutory consultees. Norfolk County Council has identified insufficient works descriptions, uncertain compound arrangements and unquantified supporting infrastructure. The Environment Agency has sought additional detail concerning concrete activities, drilling fluids, temporary works, wheel washing, fuel and chemical storage, foundations and BESS safety sequencing. South Norfolk Council has identified uncertainty concerning HDD, piling, construction noise and spoil handling.

The Applicant should therefore provide a consolidated and binding Construction Parameters Schedule before the close of Examination.

Until the maximum quantities, methods and durations are reconciled across the ES and secured through the DCO, the ExA cannot be satisfied that the construction effects reported represent the full development which the Order would authorise.

4.13 Unresolved end-to-end transport and AIL deliverability

4.13.1 Purpose of this section

The detailed environmental effects of construction traffic are addressed in Chapter 11. The narrower issue for this chapter is whether the Scheme Description establishes a complete and physically deliverable construction scenario for the major components authorised by the DCO.

East Pye Solar would require the delivery of substantial electrical and construction equipment, including:

- solar panels and mounting structures;
- conversion units;
- battery enclosures;
- BESS transformers and inverters;
- 132 kV and 400 kV project-substation equipment;
- National Grid substation plant;
- cable drums;
- piling and drilling equipment;
- cranes;
- aggregate;
- and potentially transformers and other components qualifying as abnormal indivisible loads (‘AILs’).

ES Chapter 4 defines AILs by reference to vehicles or loads exceeding specified ordinary dimensions or weight and identifies transformers and cable drums as likely examples. It also anticipates temporary highway alterations, removal of street furniture, vegetation clearance, visibility works and access modifications. The Applicant nevertheless leaves the precise AIL routes and detailed delivery arrangements to later approval.

The evidence of National Highways and Norfolk County Council demonstrates that, at submission, neither the strategic nor the local highway authority had confirmed a complete and acceptable route from the port of entry and Strategic Road Network to each BESS, project-substation, National Grid substation and overhead-line work location.

The uncertainty is therefore not confined to traffic mitigation. It concerns whether the major components forming part of the assessed Scheme can physically reach their intended locations using routes that are lawful, structurally suitable, environmentally assessed and included within the Order Limits.

4.13.2 The route must be assessed from port to final compound

A deliverable AIL strategy must identify the complete journey for each abnormal load:

1. port of entry;
2. Strategic Road Network route;
3. motorway or trunk-road junctions;
4. local A- and B-road route;
5. minor-road sections;
6. temporary highway alterations;
7. site access;
8. internal haul road;
9. destination compound;
10. unloading and crane area.

It is not sufficient to demonstrate that an AIL can enter the general Scheme area. The Applicant must show that each item can reach the exact compound at which it will be installed.

The final route may differ between:

- the Site 1B project substation;
- the National Grid substation;
- the BESS;
- the Site 5A 400 kV project substation;
- the remaining project substations;
- cable joint bays;
- and overhead-line and pylon work areas.

Each destination has different access constraints, turning requirements and surrounding receptors.

4.13.3 National Highways had not agreed the strategic AIL route

National Highways identifies the A47 and A140 as the principal Strategic Road Network routes relevant to the Scheme. Its Relevant Representation states that the proposed

AIL routes had not been finally determined and that constraints might exist on the Strategic Road Network.

The outstanding matters include:

- identification of the port of entry;
- the route from the port to the A47 or A140;
- route suitability;
- structures and junctions;
- swept paths;
- temporary works;
- and the interaction with other traffic.

National Highways also refers to the policy preference for transporting large equipment by water where practicable and, where road transport is necessary, using an appropriate port and the shortest suitable road route. The Applicant must therefore justify the selected port and demonstrate why the proposed strategic route represents the appropriate and deliverable option.

The existence of more than one possible port or strategic route is not itself problematic. The difficulty is that the application does not identify a confirmed route against which all resulting highway and environmental effects can be assessed.

4.13.4 Strategic-road constraints must be identified before consent

Potential constraints on the Strategic Road Network may include:

- bridge capacity;
- vertical clearance;
- carriageway width;
- central reservations;
- roundabout geometry;
- road signs and street furniture;
- traffic signals;
- safety barriers;
- temporary closures;
- police escort requirements;
- and interaction with planned highway works.

The Applicant should provide structural and swept-path evidence demonstrating that the largest anticipated component can pass each constraint.

Where temporary works are required, the DCO must identify:

- the location;
- land required;
- authority responsible;

- duration;
- reinstatement;
- traffic-management arrangement;
- and whether the works lie within the Order Limits.

An assumption that the final equipment supplier or haulier will resolve those matters later does not establish that the Scheme presently described is deliverable.

4.13.5 Junction effects require assessment

National Highways also requires further assessment of junction effects.

The Scheme will draw construction traffic from the A47 and A140 into the local highway network. The relevant assessment must identify the distribution of traffic through the principal junctions rather than relying upon average Scheme-wide totals.

National Highways considers that the application has not established with sufficient confidence that the additional traffic at relevant strategic junctions would remain below the assessment thresholds relied upon by the Applicant.

The outstanding evidence should include:

- daily construction traffic by junction;
- peak-hour traffic;
- worker traffic;
- HGV traffic;
- AIL movements;
- directional distribution;
- cumulative projects;
- and the effect of route changes.

This matters to Scheme Description because the construction traffic case depends upon where individual sites and compounds are served from. A change in route distribution may change both junction performance and the local roads affected.

4.13.6 Greater granularity is required for cumulative construction traffic

National Highways also states that cumulative construction traffic requires greater granularity.

East Pye would not be constructed in isolation. Other proposed or consented energy and infrastructure projects may use the same strategic and local routes during overlapping periods.

The cumulative assessment should identify, for each relevant junction and road section:

- East Pye traffic;
- traffic from each cumulative project;
- overlapping construction periods;
- peak combined flows;
- AIL conflicts;
- and any shared mitigation or restrictions.

A general allowance for cumulative growth is not equivalent to a project-specific construction overlap assessment.

The issue is particularly important where East Pye's own programme remains flexible and where the BESS, National Grid substation or other components may be constructed later than the principal solar works.

4.13.7 Traffic limits must be enforceable

National Highways seeks enforceable controls over the level and distribution of construction traffic.

The application should not rely solely upon traffic forecasts that are not reproduced as binding limits in the DCO. Without enforceable limits, the Applicant or its contractors may change:

- delivery frequency;
- route distribution;
- work-front sequencing;
- worker transport;
- compound allocation;
- or construction concurrency.

The DCO should therefore secure:

- maximum daily HGV movements;
- maximum hourly HGV movements;
- route-specific caps;
- maximum worker-vehicle movements;
- AIL numbers;
- construction delivery hours;
- monitoring;
- reporting;
- and corrective action.

The Construction Traffic Management Plan should not merely record traffic after it occurs. It should contain enforceable measures requiring intervention if the assessed limits are approached or exceeded.

4.13.8 Norfolk County Council rejects important parts of the local routeing strategy

Norfolk County Council, as local highway authority, states that important parts of the proposed access and construction routeing strategy are unacceptable.

Its targeted-consultation response records that construction traffic should, wherever reasonably possible:

- enter the Scheme from B-class roads;
- transfer onto internal haul roads;
- and avoid prolonged use of narrow minor rural roads.

The County Council rejects or raises substantial concerns about several proposed local routes and access arrangements. Its position is that the construction strategy should reduce movement through villages and along lanes that are not suitable for sustained HGV traffic.

This is material because the Applicant's construction case depends upon multiple dispersed sites being supplied simultaneously or sequentially. Where one proposed route is rejected, the traffic cannot simply disappear. It must be transferred to another route, haul road or access point, with corresponding changes to:

- land requirements;
- environmental effects;
- crossing works;
- route capacity;
- and traffic distribution.

4.13.9 Hall Lane and Fairstead Lane

Norfolk County Council objects to the use of Hall Lane and Fairstead Lane as proposed construction routes.

The concerns include:

- narrow carriageway width;
- constrained geometry;
- limited passing opportunities;
- roadside vegetation;
- residential and heritage receptors;
- drainage;
- and the inability to accommodate sustained two-way construction traffic safely.

The Applicant's continued inclusion of such roads in the routeing strategy indicates that the local access solution had not been settled.

The DCO should not authorise a traffic scenario based on use of roads that the responsible highway authority considers unacceptable unless the Applicant demonstrates:

- why no suitable alternative exists;
- what physical improvements are proposed;
- that those improvements are authorised;
- that their environmental effects have been assessed;
- and that the highway authority accepts the final design.

4.13.10 Other minor rural routes

The County Council's concerns are not limited to Hall Lane and Fairstead Lane. It identifies a wider need to avoid unsuitable minor roads and to use internal haul routes between Sites wherever possible.

The final route schedule should therefore distinguish:

- routes authorised for ordinary HGVs;
- routes authorised only for LGVs;
- routes authorised only for emergency or local access;
- routes prohibited for construction traffic;
- and routes authorised for AILs.

This should be shown on certified plans rather than left to a later CTMP.

4.13.11 Routes for Sites 7–10 remained unresolved

Norfolk County Council records that access arrangements for Sites 7–10 remained unresolved.

These Sites include development around settlements and rural roads where construction traffic, AILs and access works may affect:

- Saxlingham Nethergate;
- Saxlingham Green;
- Tasburgh;
- Hempnall;
- Fritton;
- and surrounding lanes.

The Applicant must identify how each Site will be reached without relying on routes that the highway authority has rejected.

The issue is particularly acute where the proposed internal haul-road solution requires:

- new road crossings;

- private-land rights;
- temporary bridges;
- vegetation removal;
- or additional land not presently within the Order Limits.

The construction scenario is incomplete until those internal connections and crossings are defined.

The ExA has separately required further information concerning operational and construction lighting. That evidence must identify not merely fixture types but the locations, duration, trigger conditions, illumination levels and environmental limits necessary to keep lighting effects within the assessed landscape, ecological, residential and aviation envelope.

The ExA has also required further response concerning The Krons, including the relationship between the proposed access solution, ecological effects and NCC's highway position. That issue should remain open until the revised access arrangement and its environmental consequences are demonstrated.

4.13.12 AILs should use approved haul routes

Norfolk County Council's targeted-consultation response states that AILs should be directed through suitable approved routes and internal haul roads rather than unsuitable minor roads.

That approach may reduce effects on villages, but it creates its own design requirements. An internal haul route capable of carrying a major transformer may require:

- substantial width;
- reinforced construction;
- large-radius bends;
- bridge or culvert crossings;
- vegetation removal;
- level changes;
- drainage;
- and crane or recovery access.

The application must demonstrate that the internal routes have been designed for the largest load, not merely for ordinary construction HGVs.

A six-metre-wide general access-track parameter does not necessarily establish that a long, heavy AIL transporter can negotiate the full route.

4.13.13 No complete route to the BESS has been established

The BESS may require delivery of:

- battery enclosures;
- transformers;
- inverters;
- cooling plant;
- control buildings;
- and fire-safety infrastructure.

The application does not define the maximum BESS enclosure number or dimensions. It follows that the number and characteristics of BESS deliveries are also not fixed.

A route cannot be confirmed without knowing:

- the longest component;
- maximum width;
- maximum height;
- maximum gross weight;
- axle configuration;
- and turning requirements.

The BESS remains at Gate 1 and may also be constructed later. The Applicant must therefore explain whether the same routes will remain available and suitable if BESS construction occurs after the principal solar works and temporary highway alterations have been removed.

4.13.14 No complete route to each project substation has been established

The Scheme includes up to three 132 kV and up to three 400 kV project substations.

The 400 kV substations may require very large transformers and associated equipment. The Site 1B project substation changed from 132 kV to 400 kV after statutory consultation, potentially altering:

- transformer dimensions;
- transformer weight;
- AIL number;
- crane requirements;
- and route geometry.

The Applicant should provide a separate delivery schedule for each project substation. A generic assumption based on one transformer or one access cannot demonstrate deliverability to all six potential compounds.

4.13.15 No complete route to the National Grid substation has been established

The proposed National Grid substation may occupy up to six hectares and contain large transmission equipment. ES Chapter 4 provides an access-track width of up to eight metres, but the end-to-end delivery route remains dependent upon the unresolved National Grid design and equipment schedule.

NGET has not confirmed the final substation configuration. Other Gate 2 offers may change the number and type of bays or equipment. The AIL strategy therefore cannot be final until the equipment and connection solution are confirmed.

The Applicant should not rely on a route assessed for the current indicative substation if NGET may require materially different equipment.

4.13.16 Pylon and overhead-line construction access

Works Nos. 5A–5D require access to pylon locations and overhead-line working areas.

These works may involve:

- piling or deep foundations;
- cranes;
- tower sections;
- conductor drums;
- winches;
- temporary compounds;
- and temporary pylon infrastructure.

The route to each pylon work area must be shown. It may not coincide with the route to the National Grid substation. The Applicant should identify:

- the largest crane;
- component dimensions;
- bearing-pressure requirements;
- temporary access;
- conductor-stringing areas;
- and any road or field crossings.

4.13.17 Swept-path assessments

A complete swept-path assessment should be supplied for every constrained junction and access used by an AIL. It should use the actual or assessed maximum vehicle envelope, including:

- tractor and trailer length;

- steerable axle configuration;
- overhang;
- width;
- height;
- ground clearance;
- and escort space.

Swept paths based on a generic articulated HGV are not an adequate proxy for a transformer transporter.

Where the final equipment is unknown, the Applicant should assess a defined maximum vehicle envelope and secure it through the DCO.

4.13.18 Structural assessments

The route may cross:

- bridges;
- culverts;
- retaining structures;
- buried utilities;
- gas pipelines;
- drainage infrastructure;
- and weak rural road foundations.

The Applicant should provide structural assessments confirming the maximum permissible load.

Where strengthening or temporary bridging is required, the application should specify:

- design;
- location;
- land;
- environmental effects;
- duration;
- ownership;
- and reinstatement.

Those works cannot be left to later traffic management if they require additional development or rights.

4.13.19 Highway works and vegetation removal

The targeted consultation added land for:

- visibility splays;
- AIL manoeuvres;

- temporary highway works;
- removal of street furniture;
- and vegetation clearance.

South Norfolk Council identifies concern about removal of trees and hedgerows, including within or near conservation areas. Norfolk County Council also requires greater detail about the highway boundary and physical works.

The final AIL schedule should identify for each route:

- carriageway widening;
- verge reinforcement;
- tree or hedge removal;
- sign removal;
- wall or fence alteration;
- temporary surfacing;
- utility protection;
- and reinstatement.

The Applicant should distinguish permanent highway alterations from temporary works.

4.13.20 Conservation areas and sensitive rural roads

Some proposed routes pass through or close to conservation areas and settlements with historic buildings close to the carriageway.

The detailed heritage and amenity effects belong in the relevant chapters. For Scheme Description purposes, the Applicant must demonstrate whether the proposed transport can be delivered without:

- damaging buildings or boundary features;
- permanently altering rural verges;
- removing mature vegetation;
- or requiring works outside the Order Limits.

A route should not be described as available where the necessary physical alterations have not been identified and assessed.

4.13.21 Fallback routes

The Applicant should identify any fallback route for each AIL.

A fallback route may be necessary if:

- a bridge is unavailable;
- utility works intervene;
- another infrastructure project occupies the route;

- vegetation or structures cannot be removed;
- or the preferred access proves technically unsuitable.

Fallback routes must themselves be assessed and authorised. They should not be introduced later through a CTMP where they affect different communities or require different highway works.

4.13.22 Land and rights within the Order Limits

For every highway alteration, visibility splay, haul-road section and access, the Applicant should confirm that all necessary land and rights are included within the Order Limits.

The schedule should identify:

- permanent acquisition;
- temporary possession;
- new rights;
- highway powers;
- vegetation rights;
- access rights;
- and statutory-undertaker interfaces.

Where the preferred route requires land outside the Order Limits, it is not presently an authorised delivery solution.

4.13.23 Required AIL and transport deliverability schedule

The Applicant should provide the following schedule for every abnormal load:

Required information	Detail to be provided
Component	Transformer, cable drum, battery enclosure, pylon part or other equipment
Destination	Exact Site, compound or pylon location
Number of loads	Maximum number
Dimensions	Length, width and height
Weight	Gross and component weight
Axle configuration	Maximum axle load and transporter type
Port of entry	Identified port

Strategic route	Port to A47/A140 and onward route
Local route	A- and B-roads and any minor-road section
Internal route	Access and haul road to destination
Swept path	Every constrained junction and access
Structural assessment	Bridges, culverts, roads and utilities
Highway works	Widening, reinforcement, removals and reinstatement
Vegetation removal	Trees, hedges and verges
Escort and closure	Police escort, temporary closure and timing
Fallback route	Fully assessed alternative
Land and powers	Confirmation within the Order Limits
Approval status	National Highways and NCC position
DCO control	Requirement or certified plan

4.13.24 Required DCO controls

The DCO should provide that:

1. No AIL-dependent component may be constructed until an approved end-to-end AIL strategy exists for that component.
2. The strategy must identify the port of entry and complete route.
3. National Highways and Norfolk County Council must approve the parts of the route within their respective networks.
4. Maximum AIL dimensions, weight and number must be secured.
5. Swept-path and structural assessments must use the maximum vehicle envelope.
6. All required highway works and land must be included in the Order.
7. Unassessed fallback routes may not be used.
8. Hall Lane, Fairstead Lane and other routes rejected by the highway authority must be prohibited unless subsequently approved on evidence.
9. Construction traffic must use approved B roads and internal haul routes.
10. Daily, hourly and route-specific traffic limits must be enforceable.
11. Traffic monitoring and corrective-action procedures must be secured.
12. Delayed BESS or NGET construction must use an updated and approved transport plan.
13. Vegetation removal and reinstatement must be limited to approved locations.

14. Temporary highway works must be removed and restored within a fixed period.

4.13.25 Conclusion

The application does not yet establish a complete and accepted end-to-end transport and AIL solution.

National Highways states that:

- the AIL routes had not been finally determined;
- constraints may exist on the Strategic Road Network;
- the port of entry and strategic route require further work;
- junction effects need further assessment;
- cumulative construction traffic requires greater granularity;
- and traffic limits and monitoring require enforceable control.

Norfolk County Council states that:

- substantial parts of the proposed local access strategy are unacceptable;
- construction traffic should use B roads and internal haul routes;
- Hall Lane, Fairstead Lane and other unsuitable minor roads should not be used;
- and access arrangements for Sites 7–10 remained unresolved.

Neither authority had confirmed a complete and acceptable route from the Strategic Road Network to the BESS, each project substation, the National Grid substation and the overhead-line work areas.

The uncertainty is material to the Scheme Description. The DCO seeks consent for components whose delivery depends upon large and abnormal loads, but the application has not yet shown that those components can reach their destinations within the authorised and assessed construction envelope.

The Applicant should provide a complete AIL schedule, identified port of entry, end-to-end routes, equipment dimensions and weights, swept-path and structural assessments, detailed highway works, vegetation-removal plans, fallback routes and confirmation that all required land is included in the Order Limits.

Until those matters are resolved, the Examining Authority cannot safely conclude that the physical Scheme described in Chapter 4 is deliverable through the construction scenario assessed in the Environmental Statement.

4.14 Operational replacement and repowering

4.14.1 Replacement is a foreseeable part of the authorised development

The application does not describe East Pye as a static installation constructed once and then operated unchanged for 60 years. It anticipates extensive replacement of core generating and storage equipment during the operational period.

ES Chapter 4 assumes that:

- all solar panels may be replaced once;
- complete panel replacement may take approximately 12–24 months;
- the BESS may be replaced up to five times;
- and transformers may be replaced during the operational life.

The Applicant states that solar panels are expected to have an operational life of approximately 40 years. It also assumes a shorter life for BESS equipment and an approximately 30-year life for transformers. The replacement assumptions therefore form part of the realistic development scenario, not merely speculative maintenance.

Norfolk County Council's LLFA records those assumptions and identifies uncertainty over the replacement of supporting compounds and infrastructure. The Environment Agency specifically seeks clarity regarding damaged and end-of-life battery handling and notes that BESS replacement may occur up to five times. South Norfolk Council seeks noise controls ensuring that replacement equipment does not create worse operational effects.

Replacement must therefore be assessed and controlled as recurring construction activity.

4.14.2 Complete panel replacement resembles a second construction phase

The Applicant assumes that every solar panel may be replaced once. Chapter 4 states that complete replacement may last between 12 and 24 months and require a substantial workforce.

That is not a minor maintenance exercise. It may require:

- removal of every panel;
- import of replacement panels;
- cranes, telehandlers and lifting equipment;
- HGV and LGV movements;
- temporary storage;
- waste segregation;
- packaging disposal;

- welfare facilities;
- temporary lighting;
- and renewed activity across all solar sites.

The likely impacts may resemble a second Scheme-wide construction phase, even where the existing mounting structures and foundations remain.

The Applicant should therefore identify whether the initial construction assessment includes:

- all panel-removal movements;
- all replacement-panel movements;
- removed-panel transport;
- packaging;
- temporary compounds;
- worker traffic;
- and waste processing.

4.14.3 Meaning of ‘replacement’

The DCO should define what replacement permits. The term could mean:

1. like-for-like substitution of individual failed units;
2. replacement of a complete panel table;
3. replacement of every panel while retaining mounting structures;
4. replacement of panels and mounting structures;
5. redesign and reorientation of complete fields;
6. introduction of larger or more powerful modules;
7. or material repowering of the generating station.

Those possibilities have different environmental consequences.

The Applicant should state whether replacement powers permit:

- altered panel dimensions;
- altered panel height;
- a change between fixed and tracking technology;
- increased output;
- altered row spacing;
- new mounting structures;
- new foundations;
- or changes to conversion units.

If complete redesign is permitted, the activity is more properly characterised as repowering than maintenance.

4.14.4 Maximum simultaneous replacement area

The application does not clearly state what proportion of the Scheme may undergo replacement at the same time.

A programme replacing panels sequentially within small areas may produce different effects from simultaneous activity across several sites.

The DCO should secure:

- the maximum number of Sites active simultaneously;
- the maximum number or percentage of panels removed at one time;
- the maximum replacement compound area;
- and the maximum replacement duration at any receptor.

The Applicant should explain which simultaneous scenario was assessed for:

- traffic;
- noise;
- ecology;
- soils;
- landscape;
- and drainage.

4.14.5 Re-establishment of compounds and laydown areas

Panel and BESS replacement will require temporary work areas.

The application should identify whether the undertaker may:

- reopen original construction compounds;
- construct new compounds;
- restore removed haul roads;
- use Work No. 8 laydown areas;
- or establish temporary storage elsewhere within the Order Limits.

Where original compounds have been restored to agriculture or habitat, re-establishment could cause:

- renewed soil disturbance;
- loss of established vegetation;
- drainage changes;
- ecological effects;
- and conflict with BNG commitments.

Replacement compounds should therefore be identified and limited in advance, or subject to strict approval based on updated baseline information.

4.14.6 Re-establishment of haul roads and accesses

Some permanent access tracks may remain, but other temporary haul roads are expected to be removed after construction.

The Applicant should explain whether replacement permits:

- reconstruction of temporary roads;
- renewed vegetation removal;
- temporary bridging;
- road widening;
- or reinstatement of highway works.

If replacement plant or panels differ in dimensions, the original route may no longer be suitable.

The Replacement Management Plan should include:

- authorised routes;
- maximum vehicle size;
- maximum road footprint;
- statutory-apparatus crossings;
- and restoration.

4.14.7 Replacement traffic limits

Replacement traffic should be subject to enforceable limits equivalent to those governing initial construction.

The Applicant should state the maximum:

- panel delivery movements;
- removed-panel movements;
- battery enclosure deliveries;
- battery-removal movements;
- transformer AILs;
- worker vehicles;
- waste vehicles;
- and daily and hourly HGV flows.

The application should not allow replacement traffic to be treated as ordinary operational maintenance and therefore excluded from the initial construction caps.

A replacement phase lasting up to 24 months could materially affect roads and communities even if it occurs only once.

4.14.8 Updated transport information may be required

Replacement may occur decades after the initial construction phase.

By that time:

- road layouts may have changed;
- bridges may have aged;
- traffic patterns may differ;
- other development may have occurred;
- and the equipment may be larger or heavier.

The Applicant should therefore be required to submit an updated Replacement Traffic Management Plan before each major replacement cycle.

The plan should use the then-existing highway baseline while remaining within the maximum environmental limits assessed for the DCO.

4.14.9 Updated noise controls

South Norfolk Council seeks controls ensuring that replacement equipment does not produce operational noise greater than the equipment assessed.

That is necessary because later:

- inverters;
- transformers;
- BESS cooling systems;
- switchgear;
- and auxiliary plant

may have different acoustic characteristics.

Replacement approval should require:

- equipment sound-power data;
- tonal and impulsive corrections;
- cumulative modelling;
- night-time assessment;
- and compliance with receptor-specific limits.

It is insufficient to require only that replacement equipment be of ‘equivalent’ capacity. Electrical equivalence does not establish acoustic equivalence.

4.14.10 Updated soil and agricultural controls

Major replacement may involve:

- repeated HGV access;
- cranes;
- temporary compounds;
- panel storage;
- waste storage;
- and reconstruction of haul roads.

Those works may affect soils differently from initial construction because the soil structure and drainage will have changed during decades of operation.

A replacement plan should therefore include:

- soil-condition surveys;
- weather restrictions;
- ground-protection measures;
- access controls;
- storage locations;
- and restoration.

Replacement should not proceed on waterlogged soil merely because the original DCO authorised construction decades earlier.

4.14.11 Updated ecological controls

Replacement may occur after hedgerows, grassland, woodland and mitigation habitats have become established.

Reopening construction areas could affect:

- protected species;
- nesting birds;
- bats;
- reptiles;
- great crested newts;
- invertebrates;
- and habitat relied upon for BNG.

The DCO should require updated ecological surveys and method statements where a replacement phase may affect habitats or species not present or established during initial construction.

A construction method based on the original baseline cannot safely be applied unchanged after 20, 30 or 40 years.

4.14.12 Updated drainage controls

Replacement compounds, haul roads and storage areas may alter surface-water runoff.

The Applicant should identify:

- whether original drainage remains suitable;
- whether temporary attenuation is required;
- where damaged batteries or electrical equipment are stored;
- and how contaminated runoff will be contained.

Replacement of BESS equipment is particularly significant because the drainage and firewater systems must remain operational throughout battery removal and installation.

4.14.13 BESS replacement up to five times

The Applicant assumes that BESS equipment could be replaced up to five times during the 60-year operational period.

That could result in a replacement cycle approximately every 10–15 years, depending on equipment life and commissioning date.

Each cycle may involve:

- removal of large numbers of battery enclosures;
- import of replacement enclosures;
- disconnection and recommissioning;
- crane operations;
- transformer or inverter changes;
- cooling-system changes;
- hazardous waste;
- damaged batteries;
- and temporary storage.

Five complete cycles represent a substantial cumulative construction and waste burden.

The Environmental Statement should identify whether its traffic, waste, carbon, materials and accident assessments include all five cycles.

4.14.14 Storage of removed batteries

The Environment Agency specifically seeks clarity about the handling of damaged and end-of-life batteries.

The Applicant should identify:

- whether batteries are removed directly from Site;
- whether temporary storage is permitted;
- maximum number or mass stored;
- storage duration;
- separation distances;
- weather protection;
- fire detection;
- temperature monitoring;
- firewater containment;
- and damaged-battery quarantine.

End-of-life batteries should not be stored on ordinary laydown areas without dedicated safety and pollution controls.

4.14.15 Damaged batteries

Damaged batteries may present greater fire and pollution risk than intact operational units.

A Battery Handling and Replacement Plan should provide for:

- identification;
- isolation;
- thermal monitoring;
- packaging;
- fire-resistant containment;
- emergency access;
- specialist transport;
- and receipt at an authorised facility.

The plan should distinguish between:

- normally depleted equipment;
- physically damaged equipment;
- recalled equipment;
- and batteries affected by fire, flooding or thermal events.

4.14.16 Different battery chemistry

The application does not fix the battery chemistry for initial construction or future replacement.

A later replacement could introduce a chemistry with different:

- energy density;

- thermal-runaway behaviour;
- combustion products;
- cooling requirements;
- firewater demand;
- spacing;
- mass;
- and waste classification.

The Applicant should not be allowed to rely upon technological development as a reason to leave the replacement envelope unlimited.

The DCO should identify measurable performance limits applying to any replacement technology, including:

- maximum stored energy;
- maximum heat release;
- maximum toxic-emission assumptions;
- minimum separation;
- maximum firewater demand;
- maximum noise;
- and maximum equipment dimensions.

A materially different technology outside those limits should require further assessment and approval. Where a future replacement technology differs from that assessed at consent, compliance should be demonstrated by environmental-performance equivalence rather than by technology label alone. The relevant equivalence parameters should include physical dimensions, electrical capacity where environmentally relevant, noise, heat rejection, EMF, fire behaviour, hazardous materials, pollution potential, traffic and waste consequences.

4.14.17 Environmental-performance equivalence

Replacement equipment should be required to perform no worse environmentally than the equipment assessed.

That requirement should cover:

- operational noise;
- fire risk;
- pollutant inventory;
- drainage;
- heat output;
- lighting;
- traffic;
- dimensions;
- visual effects;

- and waste.

The comparison should be based on objective parameters rather than a general judgment that the replacement is ‘similar’. The relevant equivalence parameters should include physical dimensions, electrical capacity where environmentally relevant, noise, heat rejection, EMF, fire behaviour, hazardous materials, pollution potential, traffic and waste consequences.

The approving authority should be supplied with:

- manufacturer data;
- risk assessment;
- noise data;
- drainage implications;
- and evidence of compliance with the secured envelope.

4.14.18 Transformer replacement

The Applicant assumes that transformers may be replaced during the operational period.

Replacement of a large 400 kV transformer may require:

- AIL transport;
- cranes;
- oil removal;
- temporary storage;
- drainage isolation;
- road works;
- and night-time delivery.

The DCO should require:

- an approved route;
- maximum replacement transformer dimensions and weight;
- oil-management plan;
- fire and spill controls;
- and operational noise compliance.

Transformer replacement should not be treated as ordinary maintenance where it involves major transport and construction activity.

4.14.19 Replacement of conversion units and other electrical plant

Inverters, switchgear and conversion units may have shorter lives than the 60-year Scheme period even where Chapter 4 does not identify complete replacement cycles for each.

The Applicant should provide a life-cycle schedule for:

- inverters;
- switchgear;
- conversion units;
- control systems;
- cooling plant;
- transformers;
- cables;
- and communications equipment.

The EIA should not account for panel and BESS replacement while omitting foreseeable replacement of the supporting electrical system.

4.14.20 Cable replacement

The Environment Agency identifies uncertainty over cable lifespan.

If cables or joints require replacement, works may involve:

- pulling new cables through retained ducts;
- opening joint bays;
- excavation;
- new trenches;
- dewatering;
- and replacement access.

The DCO should distinguish between:

- cable pulling within existing ducts;
- local joint repair;
- and complete route re-excavation.

Complete re-excavation should require an updated assessment and should not automatically fall within ordinary maintenance powers.

4.14.21 Waste calculations

The waste assessment should include:

- all original construction waste;
- complete replacement of all panels;
- up to five BESS replacement cycles;
- transformer replacement;
- inverter and switchgear replacement;
- cable replacement where foreseeable;
- and final decommissioning.

The Applicant should state the maximum:

- panel mass;
- glass;
- aluminium;
- silicon;
- battery mass;
- hazardous components;
- transformer oil;
- packaging;
- cables;
- and electronic waste.

A waste calculation based only on initial construction and final decommissioning would materially understate the lifetime waste stream.

4.14.22 Carbon and materials calculations

Replacement also affects the claimed carbon benefits.

The life-cycle assessment should include emissions associated with:

- manufacturing replacement panels;
- up to five replacement BESS systems;
- transformer and inverter replacement;
- transport;
- construction plant;
- waste processing;
- recycling;
- and disposal.

The Applicant should explain whether the carbon-payback and net-benefit calculations incorporate every replacement cycle assumed in Chapter 4.

4.14.23 Required Replacement Management Plan

The DCO should require a Replacement Management Plan before any major replacement phase.

The plan should contain:

Required matter	Information to be approved
Equipment	Type and quantity being replaced
Reason	Failure, end of life, upgrade or repowering

Technology	Existing and proposed technology
Environmental equivalence	Noise, fire, pollution, heat, dimensions and traffic
Programme	Duration and sequencing
Simultaneous area	Maximum Sites or compounds active
Workforce	Average and peak
Traffic	HGV, LGV, AIL and waste movements
Compounds	Location, area and drainage
Access	Permanent or reinstated haul roads
Soils	Survey and protection measures
Ecology	Updated surveys and mitigation
Drainage	Temporary and permanent controls
Waste	Storage, transport, recovery and disposal
Batteries	Damaged and end-of-life handling
Lighting	Hours, height and lux
Noise	Construction and operational compliance
Restoration	Removal of temporary works
Carbon	Materials and emissions account

4.14.24 Required DCO controls

The DCO should provide:

1. A maximum of one complete solar-panel replacement cycle.
2. A maximum of five complete BESS replacement cycles.
3. A maximum number or percentage of panels capable of replacement simultaneously.
4. A maximum number of BESS enclosures capable of removal or installation simultaneously.
5. Replacement compounds limited to approved locations and areas.
6. Replacement traffic subject to enforceable daily, hourly and route-specific caps.
7. An approved Battery Handling and Replacement Plan.
8. Dedicated controls for damaged batteries.
9. Objective environmental-performance equivalence for replacement equipment.

10. No change from fixed to tracking panels, or vice versa, without approval against the assessed envelope.
11. No increase in panel, BESS or export capacity through replacement unless expressly authorised.
12. Updated noise, ecology, soil, drainage, traffic and fire assessments where required.
13. Cable replacement involving excavation to require specific approval.
14. Transformer replacement to require an approved AIL and oil-management plan.
15. All replacement waste and carbon emissions to be included in lifetime calculations.
16. Replacement works to comply with construction hours, noise, lighting and community controls.
17. Temporary works to be removed and land restored after each cycle.

4.14.25 Conclusion

Foreseeable replacement is a recurring construction activity forming part of the authorised development. The Applicant assumes:

- an approximately 40-year life for solar panels;
- complete replacement of all panels once;
- a replacement programme lasting up to 24 months;
- up to five BESS replacement cycles;
- and replacement of transformers and other electrical equipment.

Those assumptions could produce several substantial construction phases over the 60-year operating period.

The application does not yet define:

- the meaning and limits of replacement;
- the maximum simultaneous replacement area;
- the compounds and haul roads used;
- replacement traffic;
- battery storage;
- changed technology;
- or the requirement for updated environmental assessment.

The Environment Agency specifically seeks clarity regarding damaged and end-of-life battery handling. South Norfolk Council requires controls ensuring that replacement equipment does not worsen noise. Norfolk County Council identifies uncertainty over the replacement of associated compounds and infrastructure.

The DCO should therefore secure maximum replacement frequencies, simultaneous-area limits, a Replacement Traffic Management Plan, a Battery Handling and Replacement Plan, objective environmental-performance equivalence and updated topic assessments where technology or conditions have changed.

Replacement must not become an uncontrolled power to reconstruct or repower the Scheme on materially different terms after the original environmental assessment has ceased to reflect the development on the ground.

4.15 Decommissioning, permanent infrastructure and restoration security

The Applicant relies substantially upon the proposition that East Pye Solar is temporary: the principal solar generating development is intended to operate for 60 years and then be decommissioned over approximately 12–24 months, with the land returned to its former use as far as reasonably practicable. That description requires important qualification.

The Applicant's own material confirms that significant infrastructure may or will remain after solar generation ceases. The National Grid substation and associated Grid Connection Infrastructure are intended to remain; underground ducting is anticipated to remain in situ; other below-ground structures may be retained; and access, drainage and established landscape mitigation may also survive decommissioning. The Applicant's original scoping material expressly anticipated removal of the solar and BESS infrastructure while retaining the National Grid substation and underground ducting.

Norfolk County Council's LLFA has reached the same conclusion. It records that the National Grid substation, pylons, overhead lines, sealing-end infrastructure, underground cable infrastructure and some access arrangements may remain and considers those elements to constitute permanent rather than temporary development. It also notes that the Applicant's own qualification that the Site will be returned to its original use only "as far as practicable" acknowledges that complete restoration may not occur.

The Examination should therefore distinguish rigorously between the infrastructure that will be removed, that which may be retained, and that which is intended to remain permanently. The environmental consequences of those categories are materially different.

The August 2026 NPPF adds further relevant policy context. Policy W3 expressly expects proposals for time-limited renewable-energy development to include arrangements for decommissioning and restoration of the site. That reinforces the need to define the post-operational end state now, rather than treating it as a matter capable of wholesale resolution approximately six decades later.

4.15.1 The 60-year description does not define the whole life of the development

The temporary character of East Pye is further complicated by the drafting of Requirement 21.

Revision 2 provides for the 60-year period to run by reference to final commissioning of "each part" of Work No. 1. If different parts of the generating station are commissioned at different times, their individual 60-year periods may therefore end at different dates.

The Applicant should identify the maximum whole-Scheme operating period permitted by that drafting. The DCO should not allow staggered commissioning to extend industrial use across different Sites materially beyond the project lifetime assessed and presented to the Examination.

Replacement should not reset that period. Nor should delayed BESS, substation or other works create a series of rolling operational periods whose cumulative duration exceeds the environmental case before the ExA.

A project relied upon as temporary in the planning balance requires a clear and objectively ascertainable end point.

4.15.2 The post-decommissioning development must be defined now

The Applicant's present decommissioning case remains partly contingent upon decisions to be made decades later.

Solar panels, mounting structures, conversion equipment, BESS plant and project substations are generally proposed for removal. The position is materially less certain for underground cables, ducts, joint bays, foundations, access infrastructure, drainage and associated grid works.

That uncertainty matters because retained below-ground development is still development. Empty cable ducts may alter drainage or constrain future excavation. Joint bays may constitute substantial reinforced structures. Foundations left beneath fields may interfere with agricultural restoration. Retained tracks and drainage continue to occupy and influence the land. Permanent National Grid infrastructure creates its own access, lighting, drainage, maintenance, security and landscape requirements.

The Applicant should therefore provide one definitive removal-and-retention schedule before the close of Examination. It should identify the treatment of the principal solar and BESS components, project substations, panel and equipment foundations, underground cables and ducts, joint bays and chambers, National Grid infrastructure, overhead lines and pylons, sealing-end or connection compounds, accesses, drainage, landscaping and ecological mitigation.

For each category, the schedule should identify whether it is removed, retained or subject to later decision; the depth and method of any partial removal; the permanent land required; the future owner; and the continuing environmental control.

Infrastructure not expressly justified for permanent retention should be removed.

4.15.3 The National Grid infrastructure is permanent development

The proposed National Grid substation is capable of occupying approximately six hectares and includes substantial electrical structures, buildings, fencing, access, drainage, lighting and foundations. The associated grid works may include new pylons reaching approximately 61 metres and permanent overhead-line reconfiguration.

The Applicant does not propose to remove that infrastructure when East Pye Solar ceases generation.

It must therefore be assessed and weighed as permanent development.

Its landscape, heritage, agricultural, drainage and ecological consequences do not become temporary merely because the generating station to which it was originally connected operates for 60 years.

That distinction is particularly important because the future role of the substation remains unresolved. If it is expected to remain because NGET anticipates wider network use or future connections, that purpose should be identified. If no future use has been established, the Applicant and NGET should explain why permanent retention is nevertheless assumed rather than removal.

The emergence of other network infrastructure and connection nodes in South Norfolk makes that question more, not less, important. The ExA should understand what continuing transmission function justifies leaving substantial permanent infrastructure in the landscape after the generating project which prompted it has ceased.

4.15.4 Permanent infrastructure requires permanent environmental assessment

The post-decommissioning landscape will not necessarily resemble either the present baseline or the operational solar landscape. The solar arrays and BESS may disappear while a six-hectare National Grid substation, pylons, overhead lines, permanent access, drainage and mature screening vegetation remain.

That scenario should be assessed expressly. The landscape and visual assessment should show the post-solar condition and should not extend conclusions about the reversibility of solar panels to grid infrastructure that remains indefinitely.

The same applies to heritage. Removal of the arrays does not reverse any continuing effect of permanent substations, pylons, access or mature screening upon the setting of churches, listed buildings, conservation areas, historic farmsteads and the wider historic landscape.

Drainage and flood risk require equivalent treatment. Permanent roofs, hardstanding, tracks and electrical infrastructure need permanent drainage. The assessment should identify the impermeable area, attenuation, discharge arrangements, climate-change

allowance, maintenance responsibility and failure arrangements applicable for the full life of the retained infrastructure, not merely the 60-year solar period. NCC's LLFA expressly considers infrastructure left after decommissioning to require permanent design and surface-water management.

4.15.5 Agricultural restoration is not established by equipment removal

The Applicant's restoration case also requires closer examination.Earlier assessment material assumes that soils affected during decommissioning can generally be restored using normal agricultural management and refers to restoration to pre-existing land grades. But after 60 years of construction, operation, replacement and eventual removal, the relevant question is not whether the panels can be dismantled. It is whether the agricultural land can actually be restored to the condition and capability relied upon in the planning case.

The land may by then have experienced repeated construction traffic, compaction, altered field drainage, trenching, foundation works, tracks, substations, local contamination, replacement activity and long-term changes in soil structure.

Some areas will not return to agriculture at all because permanent transmission infrastructure, access or other retained development will remain. Other areas may be returned to agricultural use while still containing ducts, foundations, drainage or other buried infrastructure.

The Applicant should therefore distinguish between land fully restored to its former agricultural capability, land returned to agricultural use but containing retained infrastructure, land retained for ecological purposes, and land remaining permanently in infrastructure use.

For BMV land in particular, restoration should be judged by an objective agricultural standard, not simply by removal of equipment and return of possession.

4.15.6 'As far as reasonably practicable' is not an adequate restoration standard

The Applicant's formulation that land will be returned to its former use 'as far as reasonably practicable' is particularly important. That wording leaves open the possibility that complete restoration proves technically difficult or disproportionately expensive decades later.

The LLFA has already identified the inconsistency: the Applicant uses the language of restoration while simultaneously identifying infrastructure that will remain. Where reversibility is relied upon to reduce the weight of long-term landscape or agricultural harm, the DCO should define the required restoration outcome objectively.

For agricultural land, that should include soil profile and structure, drainage, contamination status, ground levels and agricultural capability. Where BMV land has

been affected, comparable agricultural quality should be demonstrated rather than assumed.

There should also be a clear mechanism for determining whether restoration has succeeded and for requiring further works where it has not. The undertaker should not be able to discharge its obligation merely by completing the works in a DEMP if the resulting land remains compacted, poorly drained, contaminated or materially degraded.

4.15.7 The new private decommissioning securities alter, but do not resolve, the financial-security issue

The Applicant's recent Examination material materially changes the financial-security position. The Applicant now states that its private landowner agreements contain decommissioning securities intended to protect against default, including insolvency, and that those securities are capable of periodic revaluation and top-up. BEPS therefore does not contend that no financial provision whatsoever exists.

The issue is now more specific: whether a series of private landowner securities demonstrates that East Pye can be decommissioned and restored as one coordinated NSIP if the undertaker defaults, becomes insolvent or no longer exists.

NCC had already identified precisely this underlying risk, expressing concern about decommissioning over the long life of the project and the consequences for future generations if the project financially fails, and concluding that a financial bond would be needed.

The existence of private contractual securities is relevant to that concern, but it is not self-evidently equivalent to a Scheme-wide bond or other financial mechanism available to the public authority responsible for enforcing the DCO.

The Applicant should therefore explain the structure and practical operation of the arrangements sufficiently for the ExA to determine whether they provide equivalent protection.

4.15.8 Private landowner security may fragment a Scheme-wide liability

East Pye will be constructed and operated as one integrated infrastructure project. Its decommissioning cannot safely be assumed to become a collection of unrelated private land-restoration exercises. If a landowner security becomes callable because the undertaker defaults, the first question is who actually procures the physical decommissioning.

A landowner receiving financial security cannot automatically be assumed to possess the technical expertise, environmental permits, waste contracts, specialist contractors or project-management capacity required to remove utility-scale electrical infrastructure and restore the land.

Nor can individual landholdings necessarily be decommissioned independently. Cable routes, accesses, drainage networks and ecological measures cross ownership boundaries. Contractors may need to travel through adjoining holdings. HGV and waste movements use the same rural road network. Protected-species and water controls apply across the Scheme. Removal of infrastructure on one holding may depend upon plant or access located on another.

If separate landowners were required to enforce and implement their contractual protections individually, restoration could occur at different times, under different contracts and potentially to different standards.

That would not replicate the coordinated 12–24 month decommissioning phase assessed by the Applicant. The DCO should therefore retain one identifiable body responsible for coordinating whole-Scheme decommissioning even if private securities sit behind that obligation.

4.15.9 The security must cover restoration, not merely equipment removal

There is also a fundamental distinction between paying to remove electrical equipment and paying to restore the land to the standard assumed in the ES. The latter may be substantially more expensive.

At decommissioning, landowners may discover that tracks and compounds require deep remediation; field drainage needs reconstruction; soil structure has deteriorated; compaction extends below normal cultivation depth; imported material needs removal; contamination requires treatment; or several years of agricultural rehabilitation are needed before former capability is restored.

The Applicant should explain whether its securities cover those liabilities in full. In particular, the Examination should establish what happens if the security is sufficient to remove the panels and associated equipment but proves inadequate to restore the soils and drainage afterwards.

The same question arises where costs materially exceed the estimates on which the security was originally calculated. A security lasting six decades cannot safely be treated as adequate merely because it is linked to an original cost estimate and indexed. Its periodic review should reflect the actual configuration of the Scheme at that time, current decommissioning methods, waste liabilities, replacement technologies, environmental standards, labour and transport costs, and the actual condition of the land. The relevant amount is the reasonable cost of fulfilling the obligations then existing, not simply the historic estimate adjusted for inflation.

4.15.10 Consistency, insolvency protection and public enforcement remain unproven

The Examination also needs to know whether the private arrangements provide consistent protection across the Scheme. It is unnecessary to disclose commercially

sensitive rents or land payments. It is necessary to establish whether every relevant landholding benefits from materially equivalent security; whether the same restoration standard applies; whether the security survives assignment, refinancing, insolvency and transfer of the DCO; whether it follows the land or the project; and whether it remains available until restoration has been independently certified as complete.

The relationship between the private securities and public enforcement is particularly important. Requirement 21 can impose an obligation upon the undertaker to prepare and implement a decommissioning scheme. But an enforceable obligation and the financial ability to perform it are separate things.

If the undertaker becomes insolvent, the relevant planning authority may have a public-law enforcement power but no direct access to securities held for the benefit of individual private landowners.

The Applicant should therefore explain whether the enforcing authority can call or otherwise access the security where necessary to secure compliance, or whether only individual contracting landowners can do so.

If only landowners can enforce the financial security, the Applicant must explain how the DCO secures coordinated decommissioning where some landowners act, others do not, or disputes arise under different private contracts.

Private security is not necessarily inadequate. It simply has not yet been demonstrated to perform the same function as a DCO-secured, Scheme-wide, insolvency-remote restoration mechanism.

BEPS has also been informed that at least some of the private agreements with participating landowners contain provisions relating to development uplift or equivalent financial protection where land subsequently acquires a higher-value development use. The Applicant should clarify whether that is correct, the circumstances in which any such provision operates, and whether it applies during or following the operational life of the Scheme.

The point is potentially material because the environmental and planning case for East Pye repeatedly relies upon the proposition that the solar development is temporary and that the land will, following decommissioning, be restored to its former agricultural use so far as practicable. A contractual arrangement which expressly anticipates or protects against subsequent development of the land would not of itself demonstrate that such development will occur, nor would it override the DCO or ordinary planning controls. It would, however, indicate that a materially different post-decommissioning land-use outcome has been contemplated between the Applicant and participating landowners.

That possibility should be reconciled with the restoration case presented to the Examination.

The Applicant should therefore state whether its land agreements contain development-uplift clauses, development-value protections, options, overage provisions or other arrangements which contemplate non-agricultural use of the land after or during the Scheme. If they do, the Applicant should explain whether those provisions are purely precautionary commercial terms or reflect an expectation that some land may not return to agriculture following decommissioning.

This issue is particularly relevant where permanent grid infrastructure, retained access, drainage, buried infrastructure or other development may already prevent complete restoration of parts of the Order land. It would be inconsistent for the planning case to rely upon the reversibility of a 60-year solar use while the underlying contractual structure simultaneously preserves or anticipates a materially different development future without that possibility being explained.

The DCO must in any event determine the planning position independently of private commercial arrangements. Land should not cease to be subject to the restoration obligations relied upon in the Environmental Statement merely because a landowner and developer have contemplated a later higher-value use. Any subsequent development would require whatever separate consent is legally necessary at that time.

The Applicant should therefore confirm unequivocally whether the post-decommissioning assumption underpinning the ES remains restoration to agricultural use across all land not expressly authorised for permanent retention, irrespective of any private development-uplift or overage arrangements. If that is not the intended outcome, the environmental assessment and the claimed reversibility of the Scheme require reconsideration.

The existence of private farmer-specific security therefore changes the evidential position but does not answer the whole-Scheme question. The Applicant should identify whether every relevant landholding benefits from materially equivalent security; the amount and costing methodology; indexation and review provisions; the circumstances in which the security can be called; whether it covers drainage, soil reconstruction, contamination remediation and aftercare as well as physical equipment removal; and whether the public authority responsible for enforcing the DCO can access or rely upon it.

4.15.11 Responsibility must survive transfer and permanent retention

Decommissioning responsibility also interacts with the Applicant/NGET boundary considered elsewhere in this Chapter. The solar and BESS infrastructure may ultimately be owned by a successor to East Pye Solar Limited. The National Grid substation and associated transmission infrastructure may transfer to NGET and remain permanently. The DCO must therefore identify the point at which responsibility changes.

East Pye Solar or its successor should remain responsible for removing and restoring the temporary generating and storage infrastructure. NGET or the future transmission

owner should bear the continuing obligations associated with infrastructure formally transferred and retained permanently, including access, drainage, pollution control, security, lighting, landscape mitigation and ecological management.

There must be no gap in which an asset remains but neither body is clearly responsible for its environmental consequences. Similarly, transfer of the project company or benefit of the Order must not separate valuable operating assets from decommissioning liabilities or weaken any financial security.

4.15.12 Evidence and DCO controls required

The remaining issues can be addressed without attempting to fix the precise technology or waste regime that will exist six decades from now. The Applicant should provide, before the close of Examination, a definitive removal-and-retention schedule; a post-decommissioning plan showing all permanent infrastructure; a clear allocation of responsibility between the project undertaker and NGET; and sufficient evidence about the common structure of the private decommissioning securities to establish their scope, beneficiary, insolvency protection, review methodology, enforceability and treatment upon transfer. The DCO should then secure the essential outcomes.

Infrastructure not expressly justified for permanent retention should be removed. Retention of underground cables, ducts, joint bays or foundations should require specific environmental and agricultural justification. Permanent National Grid assets should be treated and assessed as permanent development. Agricultural restoration should be governed by objective standards and independently verified. A coordinated Scheme-wide DEMP should remain the responsibility of an identifiable undertaker or successor, notwithstanding any private landowner security.

Financial provision should remain sufficient throughout the Scheme's life to meet the actual reasonably foreseeable cost of the decommissioning and restoration obligations then outstanding. It should not be released until the relevant restoration standard has been achieved.

The Environment Agency's objection to reliance upon documents being merely 'substantially in accordance with' their outline versions is particularly relevant here. The final DEMP should not be capable of materially weakening the removal and restoration commitments upon which the environmental assessment depends.

4.15.13 Conclusion

East Pye Solar cannot accurately be treated as a wholly temporary development followed by straightforward restoration.The generating and BESS infrastructure may have a finite operational life, but substantial grid infrastructure is intended to remain permanently; cables, ducts, joint bays, foundations, access and drainage may also remain; mature ecological and landscape mitigation may alter the land permanently; and Requirement 21 may permit different parts of the solar development to reach their 60-year endpoints at different times.

NCC's LLFA has already concluded that infrastructure remaining after decommissioning should be treated as permanent and has questioned the Applicant's assertion that the Site will return to its original condition. The Applicant's own earlier assessment acknowledges both substantial uncertainty about future decommissioning methods and a qualified commitment to restore the land only as far as reasonably practicable.

The Applicant's newly disclosed private decommissioning securities are relevant and should be acknowledged. They answer the narrow proposition that no financial provision exists.

They do not yet demonstrate that a project extending across numerous landholdings can be decommissioned coherently if the undertaker fails; that every landowner is protected to the same standard; that actual restoration costs after 60 years will be covered; that soil and drainage remediation is included as well as equipment removal; or that the public authority enforcing the DCO has access to the financial resource necessary to secure compliance.

The critical issue is whether the Order guarantees that the temporary parts of East Pye will actually be removed, the permanent parts clearly identified and controlled, and the affected land restored to the agricultural and environmental standards on which the Applicant's planning case relies, notwithstanding insolvency, transfer, technological change or restoration costs materially exceeding present expectations. On the evidence presently before the Examination, that has not yet been demonstrated.

4.16 Severability and materially different implementation scenarios

4.16.1 The DCO must be tested against what it permits, not only what the Applicant presently intends

The application describes East Pye Solar as a single integrated development comprising multiple solar sites, a BESS, project substations, an extensive cable network, a new National Grid substation and associated overhead-line works. The Environmental Statement and need case are generally presented on the basis that those components will operate together as one Scheme.

That presentation does not establish that the draft DCO legally requires the whole Scheme to be constructed in that form. The numbered works are geographically and functionally separable, and the application anticipates phasing, separate commissioning and substantial flexibility over the timing and detailed design of individual components. The Examination must therefore identify which components are mandatory, which may be omitted, and which may be commenced or completed independently.

This is not a purely drafting issue. The development that is environmentally assessed must correspond with the development that the Order permits. Assessment of the full Scheme does not automatically establish that every materially different subset, sequence or severed implementation would have equivalent effects or deliver the same claimed benefits.

The Applicant should therefore explain, by reference to the operative provisions of the draft DCO, whether each realistic implementation scenario is legally permitted, environmentally assessed, technically connectable and consistent with the mitigation relied upon in the Environmental Statement.

4.16.2 Construction of only some solar sites

The Scheme comprises multiple geographically separated solar sites and sub-sites. The draft DCO must be examined to determine whether the Applicant could construct only selected solar areas while leaving others permanently unimplemented

A reduced geographical build-out could have lower effects in some respects, but it would not necessarily represent a simple proportionate reduction of the assessed Scheme. It could alter the balance between development and mitigation, the location and utilisation of project substations, the use of cable corridors, the distribution of construction traffic and the justification for compulsory acquisition.

The Applicant should identify whether there is any minimum number of solar sites or minimum developed area that must be delivered. It should also explain whether each solar site is capable of operating independently, which substation and cable infrastructure would serve it, and whether unused cable routes or electrical compounds could nevertheless be constructed.

If only some solar sites proceed, the effects on particular communities may be concentrated rather than reduced. A smaller project constructed primarily around one village could produce a different local balance of harm and benefit from the dispersed full Scheme assessed in the ES.

4.16.3 A reduced total generating capacity

The application is promoted as a project of approximately 500 MW, but the generating station is described legally as exceeding the 100 MW NSIP threshold. The Applicant should clarify whether the DCO secures any minimum or maximum operational capacity and whether it could construct a materially reduced generating station while retaining the full Order Limits and compulsory powers.

That matters because the need and benefits case may rely upon electricity generation associated with the full approximate capacity, while the environmental and land-take consequences arise from the authorised envelope. A materially smaller operational project could therefore retain extensive land rights and infrastructure while delivering fewer of the benefits advanced to justify those powers.

A lower capacity could also alter the requirement for:

- project substations;
- cable circuits;
- the BESS;
- the National Grid connection;
- and permanent transmission infrastructure.

The Applicant should identify the minimum implementation necessary to justify each major Work No. and each category of compulsory-acquisition power.

4.16.4 Solar without BESS

The solar generating component has Gate 2 status, while NGET's Relevant Representation records that the BESS remains at Gate 1. That creates a realistic possibility that the solar farm could progress without the storage component.

The draft DCO must therefore be tested to determine whether Work No. 1 may be constructed, commissioned and operated without Work No. 2. If it can, the authorised development includes a solar-only implementation scenario.

That scenario may not deliver the storage benefits relied upon in the alternatives and need case, including:

- time-shifting of solar output;
- grid balancing;
- reduction of curtailment;
- resilience;
- and dispatch of electricity at periods of higher demand.

Mitigation may also have been designed around the combined development. Drainage, access, landscaping, project-substation capacity and construction phasing may differ if the BESS is omitted.

The Secretary of State should not give weight to the benefits of an integrated solar-and-storage project unless the Order secures delivery of a defined storage component or the solar-only scenario is expressly assessed and weighed.

4.16.5 Delayed BESS

Even if the BESS is eventually constructed, the DCO may permit it to be delayed for a substantial or indefinite period.

A delayed BESS could create a separate major construction phase involving renewed:

- HGV and AIL movements;
- piling and concrete works;

- temporary compounds;
- noise;
- lighting;
- ecological disturbance;
- and traffic through local communities.

The environmental baseline may also have changed by the time the BESS is constructed. Habitats may have established, roads and cumulative development may have changed, and residents may have experienced years of solar operation before a further industrial construction phase begins.

The Applicant should identify the latest date by which the BESS must commence and become operational, and whether the initial construction traffic, noise and ecology controls apply to a delayed phase. If no longstop or updated-survey obligation exists, the ES cannot safely be treated as assessing the full temporal range permitted by the Order.

Delayed BESS is now not merely a hypothetical severability scenario. The solar and storage elements have different Gate positions. The Applicant should therefore demonstrate the environmental and benefits case for the period during which solar could operate without storage, rather than assuming contemporaneous commissioning simply because both Works are authorised in one Order.

4.16.6 Omission of some project substations

The application permits up to three 132 kV project substations and up to three 400 kV project substations. The wording ‘up to’ indicates that fewer may be built.

The Applicant should explain which solar sites and BESS infrastructure each substation would serve, which are essential, and whether omission of one would require a materially different cable configuration or electrical arrangement.

The omission of a substation could alter:

- cable lengths and routes;
- circuit numbers;
- the location of transformer noise;
- drainage and oil-containment requirements;
- landscape effects;
- AIL traffic;
- and operational resilience.

If fewer substations are constructed, the remaining substations may require greater capacity or a different configuration. The ES must therefore demonstrate that both the maximum-number and reduced-number configurations fall within the assessed envelope.

4.16.7 Omission of the National Grid substation

The application presents the Site 1B National Grid substation as the connection point for the Scheme, but NGET has not confirmed that it will use that solution. NGET also states that DCO consent would not oblige it to accommodate the connection at the proposed substation.

The draft DCO must therefore be tested to determine whether the Applicant could construct other parts of the Scheme while omitting Works Nos. 4 and 5. If those works are legally optional, the application must explain how the generating station could be energised without them. If they are legally essential, their present lack of confirmation goes directly to deliverability.

The Applicant should also explain whether the solar sites, BESS, project substations or export cables may commence before the National Grid solution is fixed. The Order should not permit substantial construction to proceed in the expectation of transmission infrastructure that may never be built or adopted.

4.16.8 A different NGET connection solution

NGET states that the final connection solution remains subject to wider regulatory and commercial considerations and that other Gate 2 offers may affect its size, design and location.

A different solution could involve:

- a larger substation;
- a different site;
- additional bays;
- different overhead-line works;
- more pylons;
- a revised cable destination;
- or separate future consent.

That is not simply a variation in detailed design. It may change the geographical and functional identity of the connection infrastructure.

The Applicant must identify whether the draft DCO could accommodate a materially different NGET solution within the existing Works Plans and limits of deviation. If it cannot, the Scheme may depend on a later consent. If it can, the Order may authorise a wider range of connection development than the ES has assessed.

Neither outcome can be left unexplained.

4.16.9 Cables constructed but not used

Work No. 6 authorises an extensive network of high-voltage and internal cables within broad corridors. If the BESS is omitted, a project substation is not constructed, or the NGET connection changes, some cable infrastructure may become unnecessary.

The DCO should therefore be examined to determine whether the Applicant could:

- install ducts speculatively;
- construct joint bays;
- lay cables before the final destination is confirmed;
- or leave unused underground infrastructure in place.

Unused cable works would still cause:

- soil disturbance;
- archaeological effects;
- groundwater risks;
- construction traffic;
- land-rights interference;
- and permanent below-ground constraints.

The Applicant should identify a legal and technical dependency between each cable route and the confirmed work it serves. High-voltage export cables should not be capable of commencement before the final connection solution is approved.

4.16.10 Staged implementation over many years

The DCO may allow different parts of the Scheme to commence at materially different times within the Order's commencement period. The Applicant must identify the maximum period over which initial construction could be staged.

A prolonged staged implementation could produce a sequence of separate construction campaigns rather than the approximately 24-month concurrent programme described in the ES. That could alter:

- the duration of disturbance;
- the number of mobilisation events;
- traffic distribution;
- cumulative effects with other projects;
- ecological baselines;
- soil conditions;
- and community impacts.

The assessment of a two-year construction phase does not automatically assess repeated construction over a much longer period.

The DCO should therefore contain clear commencement, phasing and completion controls for each principal component. Revision 2 of Requirement 2 now requires a construction phasing scheme, timetable and plan identifying phasing areas. That amendment is relevant but does not remove this scenario from the DCO envelope. It does not establish a maximum interval between phases, a whole-Scheme construction long-stop or an expiry mechanism for materially independent Works which remain unimplemented. The Applicant must therefore demonstrate the maximum temporal implementation scenario assessed by the ES and secure that maximum through the DCO.

4.16.11 Abandonment of works after commencement

The Applicant may commence a work by undertaking limited enabling activity and then decide not to complete it.

Possible examples include:

- constructing an access or compound but not the solar field;
- installing ducts but not cables;
- forming a BESS platform without installing batteries;
- acquiring and clearing land for a substation that is not built;
- or commencing pylon foundations before the connection solution changes.

The application should identify what constitutes commencement for each work and what restoration obligations arise where the work is then abandoned.

A generic decommissioning obligation at the end of the 60-year operational period may not apply to works that never become operational. The DCO should require prompt restoration of abandoned or stranded works and prevent land remaining indefinitely in a partially developed condition.

4.16.12 Biodiversity net gain and ecological mitigation

BNG calculations and ecological mitigation may assume full build-out of the Scheme and delivery of habitat measures across several sites.

If only part of the development proceeds, the Applicant must explain:

- which habitat measures remain mandatory;
- whether the BNG calculation is recalculated;
- whether mitigation associated with an omitted site is still delivered;
- and whether habitat connectivity remains effective.

There is a risk that development proceeds on the most commercially attractive land while mitigation linked to later or omitted components is not delivered.

The DCO should therefore secure ecological mitigation by phase and require each commenced component to deliver the mitigation necessary for its own effects before or alongside that development.

4.16.13 Landscape mitigation

The landscape strategy may similarly depend upon coordinated planting across the full Scheme.

Partial implementation could produce:

- isolated compounds;
- unmitigated substations;
- incomplete screening;
- planting without the development it was intended to screen;
- or development without the planting allocated to another work phase.

The Applicant should identify which landscape measures are tied to each Site and major electrical component and whether they remain mandatory if other parts of the Scheme are omitted.

Planting required to mitigate the BESS, project substations or National Grid substation should be delivered before or contemporaneously with those works, not deferred until full Scheme completion.

4.16.14 Drainage and flood-risk mitigation

Drainage systems may be designed on the basis of full site layouts and shared infrastructure. Partial implementation could result in:

- temporary drainage becoming long-term;
- attenuation not being built;
- incomplete outfall arrangements;
- or impermeable compounds being constructed without the wider drainage network.

The Applicant should identify whether each Site and compound is hydrologically independent and whether all necessary drainage can operate safely if later phases never proceed.

No component should commence unless its permanent drainage and pollution-control systems are complete and independently functional.

4.16.15 Construction traffic under prolonged phasing

The transport assessment generally relies on an approximately 24-month construction period and defined average and peak traffic flows.

If the Scheme is staged over many years, the daily peak may be lower but the duration and repetition of traffic may be materially greater. Local roads may be repeatedly reopened to construction vehicles, and temporary highway works may be reinstated several times.

The Applicant should therefore assess both:

- the maximum concurrent construction scenario; and
- the maximum-duration phased scenario permitted by the DCO.

The relevant traffic controls must apply cumulatively across all phases rather than resetting for each Work No.

4.16.16 Claimed benefits may not arise

Claimed benefits must be attached to the implementation scenario which actually produces them. Solar generation benefits may arise without BESS, but balancing, storage and co-location benefits cannot be credited during a period in which Work No. 2 is not connected or operational.Those benefits may be reduced where:

- fewer solar sites are built;
- total generation is lower;
- the BESS is omitted or delayed;
- storage capacity is reduced;
- the connection is delayed;
- or the project never becomes fully operational.

The Applicant should state which benefits arise under each permitted implementation scenario and which depend upon complete delivery.

It would be inappropriate to weigh the full generation, storage, resilience and network benefits if the DCO permits a materially smaller or solar-only project without corresponding adjustment.

4.16.17 Compulsory-acquisition powers may outlast the need for individual works

The Applicant seeks compulsory powers across the full Order Limits.

If components are omitted, reduced or redirected, some land and rights may no longer be necessary. The DCO should not allow the Applicant to exercise powers for:

- unused cable routes;
- an unconfirmed National Grid substation;
- omitted substations;
- abandoned access routes;
- or BESS infrastructure that cannot connect.

The compulsory-acquisition case must be tied to the confirmed implementation scenario. Powers should lapse or be incapable of exercise where the relevant work is no longer required.

4.16.18 Required severability evidence and controls

The Applicant should provide a formal severability assessment addressing every realistic combination of development. It should state whether the scenario is permitted by the DCO, whether it was assessed in the ES, whether it is technically and contractually connectable, and whether the mitigation remains effective.

The assessment should cover at least:

- full Scheme;
- partial solar build-out;
- reduced capacity;
- solar-only;
- delayed BESS;
- reduced BESS;
- omission of one or more project substations;
- omission or relocation of the National Grid connection;
- partial cable construction;
- extended staged construction;
- and abandonment after commencement.

The DCO should then secure the necessary dependencies. In particular, it should prevent commencement of a component where its connection, drainage, access or mitigation depends on another unconfirmed work. It should require prompt restoration of abandoned works, phase-specific delivery of ecological and landscape mitigation, and the release or non-exercise of compulsory powers for omitted development.

4.16.19 Conclusion

The application describes one integrated Scheme, but the draft DCO may permit multiple materially different implementation scenarios.

Those scenarios include:

- construction of only some solar sites;
- a reduced generating capacity;
- solar without BESS;
- delayed or reduced BESS;
- omission of project substations;
- omission or relocation of the National Grid substation;
- construction of unused cable infrastructure;
- prolonged staged implementation;
- and abandonment of works after commencement.

Assessment of the full Scheme does not automatically establish that every subset, sequence or severed implementation is environmentally equivalent.

Partial implementation may alter:

- BNG;
- landscape mitigation;
- drainage;
- ecology;
- construction duration;
- traffic;
- connection viability;
- compulsory-acquisition necessity;
- and the benefits relied upon in the planning balance.

The Applicant should therefore provide a complete severability assessment and the DCO should secure minimum implementation, work dependencies, phasing, mitigation, restoration and land-power controls. Without those measures, the development lawfully authorised could differ materially from the integrated Scheme presented and assessed.

4.17 Consequences for the Environmental Statement

4.17.1 Introduction

The uncertainties identified in this chapter have direct consequences for the reliability and legal adequacy of the Environmental Statement.

They do not concern isolated drafting errors or minor equipment choices. They affect the principal physical components of the Scheme, their locations, their interdependence, their construction and replacement, their connection to the transmission system and the infrastructure remaining permanently after solar decommissioning.

The central question is whether the Environmental Statement assesses the development that the draft DCO would actually authorise. That requires consistency between:

- the Scheme Description;
- the design envelope;
- the Works Plans;
- the environmental assumptions;
- the mitigation;
- the compulsory-acquisition case;
- and the operative DCO controls.

The evidence of Norfolk County Council, South Norfolk Council, the Environment Agency, National Highways, NGET, NGT, Norfolk Gliding Club and GAAC demonstrates material uncertainty in each of those areas.

4.17.2 Worst-case assessment

The Applicant relies on the Rochdale Envelope and states that the ES assesses realistic worst-case parameters. The preceding analysis shows that it is not yet clear that the same final worst case has been used consistently across all environmental topics.

The solar design permits both fixed and tracking panels. Trackers may reach approximately 4.5 metres and move through a substantial operational range, while fixed panels are lower and differently oriented. Different topics may therefore have assessed different panel technologies. The Applicant must demonstrate that every permitted field-level configuration remains within the combined worst case, including landscape, glare, aviation, ecology and runoff.

The Site 1B project substation changed from a 132 kV structure of approximately seven metres during statutory consultation to a 400 kV structure described as approximately 13 metres at targeted consultation and 15 metres in the final ES. It is not sufficient for Chapter 4 to state the final parameter. The Applicant must establish that the final:

- landscape;
- heritage;
- noise;
- aviation;
- drainage;
- groundwater;
- fire;
- and transport

assessments all used the 400 kV, 15-metre design.

The National Grid substation increased from an earlier footprint of approximately three hectares to a final maximum of six hectares. The Applicant must show that the full compound, impermeable area, buildings, access, drainage and pylon works were assessed in every relevant chapter.

The same concern applies to foundations. The application permits panel piles up to four metres and BESS or substation piling up to 12 metres, but does not provide a complete schedule of pile number, diameter, density or concrete volume. An assessment of maximum depth alone does not establish the maximum groundwater, archaeological, noise or materials impact.

BESS replacement may occur up to five times, but it is unclear whether the lifetime traffic, waste, carbon, fire and drainage assessments include all replacement cycles. Nor is the future battery chemistry fixed.

The application also permits or anticipates permanent retention of National Grid infrastructure, pylons, overhead lines, cables, ducts, joint bays, access and drainage. Those permanent effects must be assessed separately from the temporary 60-year solar development.

Finally, NGET has not confirmed that the Site 1B connection solution will be used. A materially larger, differently configured or differently located solution has not been shown to fall within the assessed envelope. The Rochdale approach cannot treat the identity, location and necessity of the final transmission connection as an ordinary matter of detailed design.

The Applicant must therefore provide a chapter-by-chapter worst-case audit identifying the precise parameters used in each assessment. That audit should state, for every relevant topic, the panel technology, panel height and orientation, BESS capacity and equipment assumptions, substation footprint and height, transformer number, pylon number and height, foundation method, cable working width, construction compound extent, replacement scenario and decommissioning assumptions used.

It should also demonstrate that the DCO prevents combinations of parameters that were not assessed together. A collection of separate topic-specific worst cases does not necessarily amount to a coherent whole-Scheme worst case. For example, a landscape chapter may assess trackers because of their height, while a drainage chapter assumes fixed panels, a noise chapter assumes an indicative number of electrical units and an aviation chapter relies on a particular orientation or module type. Unless the permitted final configuration is constrained, the constructed Scheme could combine characteristics from several scenarios in a way that produces materially different effects.

Where the final parameter differs from the assumption used in a technical chapter, that chapter must be updated or the DCO envelope reduced. It is not sufficient to rely on a general commitment that detailed design will be ‘no worse than assessed’ where the assessment baseline and comparison parameters are not expressly identified.

The Examining Authority should therefore require the Applicant to demonstrate that:

- each final maximum parameter has been assessed in every relevant topic;
- all realistic combinations of those parameters remain within the assessed envelope;
- permanent retained infrastructure has been assessed as permanent development;
- replacement and repowering assumptions cover the full operational life;
- and any materially different NGET connection solution would require further environmental assessment and consent.

Until that exercise is completed, the ES cannot be assumed to represent the realistic worst case of the development authorised by the draft DCO.

The reasonable worst case is therefore not confined to the maximum physical dimensions of each component. It must include the materially different implementation permutations which the DCO permits. A smaller physical Scheme is not necessarily environmentally or operationally equivalent if, for example, solar proceeds without BESS, one substation is omitted, mitigation dependent upon a later phase is delayed, or infrastructure intended to serve an omitted Work remains constructed. The ES should identify and assess those realistic implementation cases expressly.

4.18 Remedies sought

The defects identified in this chapter concern the definition, control, deliverability and environmental assessment of the authorised development. They cannot be addressed adequately through broad assurances that detailed design will remain within the Rochdale Envelope or that outstanding matters will be resolved after consent.

The Applicant should be required to provide a single, reconciled and enforceable account of the Scheme before the close of the Examination. Where an essential parameter, connection dependency, access arrangement or statutory interface cannot be confirmed, the corresponding work, land or power should be restricted or removed from the draft DCO.

4.18.1 Consolidated scheme definition

The Applicant should provide a single consolidated Maximum Design Parameters Schedule covering every principal and ancillary component of the Scheme. The schedule should state the maximum and, where relevant, minimum number, height, footprint, depth, capacity, voltage, duration and operational parameter for each authorised work.

The schedule should include the solar arrays, conversion units, BESS, project substations, National Grid infrastructure, pylons, overhead lines, cables, joint bays, compounds, access tracks, drainage works, landscaping, ecological mitigation, replacement works and decommissioning infrastructure. It should distinguish permanent development, temporary construction development, replacement infrastructure and works intended to remain after the solar project is decommissioned.

The Applicant should also provide a definitive list of every permanent and temporary work authorised by the draft DCO. Generic references to ancillary or associated development should not be used to authorise material works whose location, scale or environmental effects have not been identified.

A formal reconciliation should be produced between ES Chapter 4, the Works Plans, Land Plans, Book of Reference, Design Principles, Parameters and Commitments document, Commitments Register and draft DCO. Every inconsistency in terminology, mapping, work numbering or parameter should be resolved. The corrected plans

should use an up-to-date base map and should accurately show existing infrastructure, including the operational Long Stratton Bypass.

Terms capable of materially widening the authorised development should be defined. In particular, the Applicant should explain what is meant by ‘arrangement’, ‘associated development’, ‘ancillary works’, ‘maintain’, ‘replace’, ‘repower’ and ‘substantially in accordance with’. The definitions must prevent those terms from becoming a route to authorise additional or materially different development after consent.

The Applicant should identify every application document containing a binding parameter or commitment and state the DCO provision through which it is secured. Parameters should not be dispersed across multiple documents without a clear hierarchy or mechanism for resolving conflict.

4.18.2 Grid connection and NGET responsibilities

The Applicant should disclose the operative connection agreement, the proposed replacement agreement and all relevant variations, subject only to justified redaction of commercially sensitive financial terms. The disclosed material should establish the connection capacity, connection location, Gate status, responsibilities for land and consent, works required from the Applicant and works required from NGET.

NGET should confirm whether Site 1B remains an acceptable and technically sufficient final point-of-connection solution. That confirmation should address the proposed six-hectare substation envelope, the anticipated number and configuration of bays, the overhead-line works and the maximum number and height of pylons.

The Applicant and NGET should identify any other Gate 2 offers capable of changing the size, design, location or function of the proposed National Grid infrastructure. Where those projects may require a materially different or larger solution, the Applicant should explain whether that solution is within the assessed and authorised envelope.

A joint responsibility and ownership matrix should identify who will design, approve, construct, own, operate and maintain every element of Works Nos. 4 and 5. It should cover civil works, electrical equipment, access, drainage, oil and firewater systems, landscaping, biodiversity mitigation, overhead lines, pylons, emergency response and long-term environmental compliance.

A programme should be provided for finalising the NGET connection design. It should identify milestones for the replacement connection agreement, confirmation of the point of connection, completion of the NGET option-selection process, final land requirements, detailed design, approval, construction, adoption and energisation.

The DCO should prevent commencement of the National Grid substation, overhead-line works and dependent export cables until NGET has approved the final connection solution in writing. Compulsory-acquisition powers should not be exercisable for the

proposed connection infrastructure until NGET confirms that the relevant land and rights are required.

Any land, rights or powers not necessary for the confirmed connection solution should be removed from the Order. The Applicant should not retain powers over land merely because it may be useful for an alternative or future network arrangement.

4.18.3 Solar and BESS severability

The Applicant should confirm whether the solar generating station may lawfully and technically be constructed, commissioned and operated without the BESS. It should also confirm whether the BESS may be delayed, reduced, constructed partially or omitted permanently.

Every realistic severed implementation scenario should be assessed. That assessment should include solar-only development, solar with delayed BESS, solar with materially reduced BESS, construction of BESS civil infrastructure without an operational connection, and replacement by materially different battery technology.

The Applicant should identify the minimum BESS capacity, duration and operational capability relied upon in the need, climate and grid-benefits cases. If no minimum is secured, the Secretary of State should not attribute material weight to benefits dependent upon delivery of a fully integrated storage system.

The DCO should prevent reliance on BESS benefits unless delivery of a defined and connected BESS is secured. Alternatively, the decision-making balance should be undertaken on the basis of the realistic solar-only case.

4.18.4 Design parameters

The panel technology permitted within each solar field should be defined. The Applicant should specify whether the field contains fixed panels, tracking panels or a controlled combination.

Maximum panel height, orientation, movement, tilt and row spacing should be secured. Trackers reaching 4.5 metres should be prohibited or restricted in areas sensitive to landscape, heritage, residential amenity, ecology or aviation unless the Applicant demonstrates expressly that they represent the assessed and acceptable worst case.

The BESS envelope should define the maximum and minimum MW and MWh capacity, duration, maximum import and export, battery chemistry or chemistry envelope, enclosure number, enclosure dimensions, stored energy, compound area, transformer and inverter number, cooling equipment and sound-power limits.

Each 132 kV and 400 kV project substation should be subject to a defined maximum layout. The Applicant should state the transformer number, transformer rating,

maximum oil inventory, buildings, switchgear, busbars, height, compound area, hardstanding, drainage, lighting and foundation design.

The final 15-metre maximum height of the Site 1B project substation should be secured expressly. The Applicant should demonstrate that the Environmental Statement assessed that height rather than the earlier 13-metre targeted-consultation design.

The DCO should fix the maximum number, location and height of new pylons and should restrict their limits of deviation. Any materially different overhead-line alignment should require further assessment.

Maximum piling and foundation depths should be accompanied by maximum numbers, diameters, installation methods and concrete quantities. The use of driven, screwed, bored or concrete foundations should be controlled by location-specific environmental constraints rather than left entirely to detailed design.

4.18.5 Cable and below-ground works

The Applicant should provide a corridor-by-corridor cable schedule identifying the maximum number of circuits, individual cables, ducts and trenches at each voltage.

The DCO should secure maximum ordinary and widened working widths, trench width and depth, maximum simultaneous open-trench length and the maximum number and dimensions of joint bays and fibre chambers.

Crossings of main rivers, roads, the FM05 gas pipeline, protected habitats and other major infrastructure should be fixed on certified plans. The crossing method should be defined where open-cut and trenchless alternatives have materially different effects.

Maximum HDD depth, bore diameter, bore length, number of parallel bores, launch and reception pit dimensions and compound area should be secured. Trenchless methods should require prior approval from the relevant regulator and statutory undertaker.

Maximum foundation type, plan dimensions, depth, piling method and density for each principal infrastructure type, including the BESS, Project Substations and National Grid Substation.

High-voltage cable works serving the transmission connection should not commence until the final NGET connection point and cable destination have been approved. The DCO should prohibit speculative ducts, duplicate circuits and cable infrastructure that is disconnected from an approved final connection solution.

The Applicant should define the assumed life of each principal cable system, the circumstances in which replacement excavation may occur and the decommissioning treatment of cables, ducts, joint bays and chambers. Removal should be the default unless retention is justified through a specific environmental and agricultural assessment.

4.18.6 Statutory undertakers

Protective provisions for NGT should be agreed before the close of Examination. They should address the FM05 Yelverton–Stowmarket feeder main, cathodic-protection infrastructure, transformer-rectifier equipment, access rights, crossings, loading, ground-level changes, vegetation and emergency operations.

The DCO should preserve NGT's existing access and easement restrictions. No panel, foundation, cable, access track, drainage work, compound, material store or planting should be placed within the protected corridor without NGT's written approval.

The Applicant should provide a plot-by-plot schedule identifying every work and compulsory power affecting gas and electricity infrastructure. That schedule should identify the statutory apparatus, existing interest, proposed Work No., construction method, permanent or temporary effect and applicable protective provision.

No work within a protected statutory-undertaker corridor should commence until the undertaker has approved the detailed design and method. No existing statutory right should be extinguished, suspended or materially interfered with without the undertaker's written agreement.

Equivalent clarity should be provided for NGET, NGT and every other affected statutory undertaker whose apparatus or rights are crossed by the Scheme.

4.18.7 Aviation safeguards

The Applicant should provide a revised, site-specific aviation-safety assessment addressing the actual mixed gliding and powered-aircraft operations at Tibenham Airfield.

The assessment should be undertaken through direct engagement with Norfolk Gliding Club and should respond to the evidence of the General Aviation Awareness Council. It should address normal operations, engine failure after take-off, glider launch failure, aborted aerotow, variable circuit patterns, glare, obstacles, fencing, emergency-landing land and cumulative development.

The final assessment should define any land that must remain free from panels, fences, substations, planting, drainage structures or other obstacles. Those areas should be secured through a certified Aviation Safeguarding Plan.

Binding controls should be imposed on panel type, height, orientation, tracker movement, reflectivity and replacement technology. Trackers should be prohibited in aviation-sensitive areas unless demonstrated to be no worse than fixed panels.

The assessment should include the combined aviation envelope of solar panels, BESS, substations, pylons, overhead lines, lighting and construction cranes.

If the Applicant cannot demonstrate that Site 1 can be developed without unacceptable aviation risk, the affected parts of Site 1 should be removed or reduced. Safety should not depend upon mitigation that remains unidentified or unenforceable at the point of consent.

4.18.8 Construction and transport

The Applicant should provide a complete AIL schedule covering every large transformer, battery enclosure, cable drum, pylon component and other abnormal load.

For each AIL, the schedule should identify dimensions, weight, axle configuration, number of deliveries, port of entry, Strategic Road Network route, local route, internal haul route and final destination.

End-to-end route plans should be agreed in principle with National Highways and Norfolk County Council. The plans should include swept-path analysis, structural assessments, junction alterations, bridge or culvert works, vegetation removal, traffic management, fallback routes and confirmation that all necessary land and rights fall within the Order Limits.

Routes rejected by the local highway authority, including Hall Lane, Fairstead Lane and other unsuitable minor roads, should not remain available through a later CTMP unless the authority approves them on the basis of new evidence. Construction traffic should use appropriate B roads and internal haul routes wherever required by Norfolk County Council.

The DCO should impose enforceable daily, hourly and route-specific construction traffic caps. Monitoring should include corrective action where the assessed limits are approached or exceeded.

The Applicant should define the maximum number of simultaneous construction work fronts, piling rigs, HDD operations, compounds and active haul routes. A programme should identify the maximum duration of construction at each solar site, cable corridor, substation and grid-work area.

Maximum compound footprints, hardstanding areas, haul-road lengths, temporary access works and drainage requirements should be secured.

The construction assessment should quantify pile numbers and installation methods, concrete volumes, excavation, trenching, HDD operations, drilling-fluid use, spoil storage and dewatering. Those figures should be reconciled with the noise, traffic, air-quality, groundwater, drainage, waste and carbon assessments.

4.18.9 Replacement and decommissioning

The DCO should define the maximum number of major replacement cycles. It should limit complete solar-panel replacement to the assessed cycle and BESS replacement to the assessed maximum.

The maximum area or number of sites capable of undergoing replacement simultaneously should be fixed. Replacement traffic, compounds, temporary access, lighting and working hours should be subject to controls equivalent to those applying during initial construction.

Replacement equipment should be required to perform no worse environmentally than the assessed equipment. Objective limits should cover dimensions, capacity, noise, stored energy, chemistry, heat release, pollutant inventory, drainage, firewater, traffic and lighting.

A Battery Handling and Replacement Plan should govern the removal, temporary storage, quarantine, transport and disposal or recycling of damaged and end-of-life batteries. Dedicated fire, monitoring and pollution controls should apply throughout replacement.

The Applicant should provide a definitive removal-and-retention schedule identifying what will be removed at decommissioning and what is intended or permitted to remain. It should cover panels, foundations, BESS infrastructure, project substations, the National Grid substation, pylons, overhead lines, cables, ducts, joint bays, access, drainage, landscaping and altered ground levels.

The National Grid substation, retained pylons, overhead lines, access and drainage should be assessed and controlled as permanent development. Their long-term owner and operator should accept responsibility for maintenance, drainage, landscape mitigation, biodiversity, safety and environmental compliance.

The DCO should secure independently costed, index-linked and insolvency-protected financial security for decommissioning and restoration. That security should be reviewed periodically to reflect the actual equipment, waste and restoration liabilities.

4.18.10 Updated environmental assessment

The Applicant should update the Environmental Statement wherever the final parameter exceeds, differs from or was not demonstrably included in the assessed design.

A revised noise assessment should address the full 400 kV Site 1B project-substation envelope, the maximum BESS compound and equipment inventory, the National Grid infrastructure and cumulative operation of all major electrical plant. Replacement equipment should be assessed against binding receptor limits.

Drainage and groundwater assessments should be updated to reflect the final impermeable areas, SuDS land, firewater containment, maximum foundations, piling, cable trenches, HDD, dewatering and statutory-infrastructure crossings.

The aviation assessment should use the final Site 1 layout, panel technology, tracker parameters, reflectivity, fencing, substations, pylons, lighting and construction cranes.

Landscape and heritage assessments should be updated where they relied on earlier substation heights, footprints, panel layouts, pylon assumptions or mitigation. The assessment should include the permanent post-decommissioning landscape in which National Grid infrastructure remains.

The transport assessment should be updated using the final port of entry, AIL routes, local accesses, haul-road strategy, construction programme and enforceable traffic caps.

The cumulative assessment should use the final East Pye construction and implementation programme and should address Norwich to Tilbury, Tasway, other solar and BESS projects, highways schemes and other grid infrastructure. It should include realistic delayed BESS, delayed NGET and replacement scenarios.

The Applicant should also provide a final audit demonstrating that every material parameter in the DCO was assessed in the relevant environmental chapter and is secured by an enforceable provision.

The word ‘substantially’ should be removed from Requirements where it weakens compliance with approved parameters, environmental plans or mitigation. Any amendment mechanism should be narrow, objective and incapable of authorising new or materially different significant effects.

4.18.10A Examination-stage Scheme Definition Schedule

In light of ISH1 and ExQ1, the Applicant should provide one consolidated schedule identifying:

- the final maximum parameter for every material component;
- the number and permitted locations of conversion units and switchrooms;
- panel technology, rating, overplanting assumption and relevant capacity limits;
- AIS/GIS alternatives and the discipline-specific worst case;
- the correct separate parameters for project and National Grid substations;
- Site 6 construction and operational use;
- lighting parameters;
- fencing;
- the final Sites 7–10 haul-road strategy;
- the Site 7 gas-pipeline crossing solution;
- the BESS Gate status and assumed commissioning scenarios;
- the National Grid substation’s delivery timing and potential third-party role;

- and every inconsistency corrected between the Works Plans, Illustrative Masterplan and environmental figures.

For each item the schedule should identify the ES assessment relied upon and the DCO provision which prevents a materially worse outcome.

4.18.11 Consequence if the remedies are not satisfied

These remedies are not requests for unnecessary detail or premature manufacturer selection. They concern the definition of the authorised development, the realistic worst case, the physical ability to construct and connect it, the protection of statutory infrastructure and the enforceability of mitigation.

If the Applicant cannot confirm an essential design parameter or connection dependency, the corresponding flexibility should be removed. If a route, crossing or statutory interface is not agreed, the relevant work should not be authorised. If a materially different implementation scenario has not been assessed, it should be prohibited. If the final NGET solution is not confirmed, the associated commencement and compulsory-acquisition powers should not be available.

Unless the Applicant provides the required evidence and the draft DCO is amended accordingly, the Examining Authority cannot be satisfied that the development authorised would be the development assessed, that its essential components are deliverable or that the compulsory powers sought are necessary and proportionate.

Chapter 5: Reasonable Alternatives and Design Evolution

5.1.1 Introduction

This section objects to the Applicant's treatment of reasonable alternatives and design evolution on the basis that it is legally, evidentially and strategically deficient. The Environmental Impact Assessment must do more than describe how the Applicant arrived at its preferred scheme. It must identify the reasonable alternatives actually studied, explain the main reasons for choosing the proposed option and compare their environmental effects. The alternatives exercise must also be sufficiently transparent to show that materially less harmful options were not excluded merely because they were inconsistent with the Applicant's pre-existing commercial model, assembled land interests or preferred scale of development.

On the evidence contained in Chapter 5 and the Site Selection Assessment, that standard has not been met. The alternatives case is structured around a narrow and self-serving scheme rationale: a 500 MW transmission-connected solar development, with associated substations, extensive cabling and a co-located Battery Energy Storage System, fixed to a particular part of South Norfolk and defended by reference to an asserted urgent need and supposed grid logic. The Applicant then treats any option that would not reproduce that same project concept as unreasonable.

The Applicant expressly states that its alternatives assessment is conducted in the context of what it calls the 'clear and urgent need for the Scheme' and for development 'at the proposed scale.' It consequently declines to consider either a 'no development' scenario or a smaller development because those options would not deliver the generation and storage capacity selected by the Applicant. That reasoning is circular. It defines the objective as delivery of the preferred Scheme and then excludes any alternative that does not deliver the preferred Scheme.

The central evidential problem is more fundamental. The land comprising East Pye was not selected because a viable grid connection existed at Norwich Main. Norwich Main had insufficient capacity and could not be expanded to accommodate the project. Nor has the Applicant demonstrated that the land was selected because it represented an ecologically or environmentally preferable location. The evidence instead shows that the Applicant first searched for, identified and secured a sufficiently large package of land from willing landowners around an assumed Norwich Main connection. When that connection premise failed, it retained the assembled land and searched for a new National Grid substation capable of serving it.

Site selection was therefore led principally by land availability. The actual point of connection was adapted to preserve the existing land package. Environmental constraints were subsequently managed through buffers, setbacks, landscaping and mitigation, rather than being allowed to determine whether the Scheme should be located in this sensitive landscape at all.

That is particularly serious because East Pye is not proposed on unconstrained or low-conflict land. The Scheme would occupy a very large area of productive agricultural land, much of it Best and Most Versatile, and would affect a historically and environmentally sensitive rural landscape. It engages overlapping constraints relating to ecological networks, ancient woodland, protected species, watercourses, private water supplies, heritage settings, settlement character, aviation, public rights of way, narrow rural roads and cumulative infrastructure pressure.

Those environmental effects must also be considered against the regional need position. The Applicant has not shown that a further 500 MW transmission-connected solar project is required in South Norfolk or in the T7 East Anglia transmission region. The evidence assembled by BEPS indicates that T7 is already heavily subscribed for solar overall and particularly for transmission-connected solar. In those circumstances, the environmental consequences of the Scheme cannot be justified merely by invoking an abstract national need for renewable energy. The relevant question is whether this project, in this place, is required despite the regional capacity and pipeline position. The Applicant has not answered that question.

The ‘do nothing’ alternative is therefore not an artificial or irrelevant comparator. Where refusal has not been shown to create a regional shortfall, but would avoid extensive agricultural, ecological, landscape, heritage, hydrological and community harm, non-development is a reasonable and potentially preferable alternative which required proper assessment.

5.1.2 The applicable alternatives requirement

The Applicant relies upon NPS EN-1 paragraph 4.3.9, which states that there is no general policy requirement to consider alternatives or demonstrate that a development represents the absolute best option. That does not dispose of this objection.

Paragraph 2 of Schedule 4 to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires a description of the reasonable alternatives studied by the developer, including alternatives in terms of development design, technology, location, size and scale, together with the main reasons for selecting the chosen option and a comparison of environmental effects. The Applicant reproduces that requirement in Chapter 5. It also acknowledges that NPS EN-5 requires applicants to consider carefully the location and design of associated substations, and that the Planning Inspectorate’s guidance expects a good Environmental Statement to explain the alternatives considered and the reasons for the chosen option by reference to environmental effects.

The objection is not that the Applicant had to investigate every theoretically conceivable parcel of land in England. It is that the alternatives it did study were framed and screened through criteria which predetermined the outcome. The Applicant fixed the technology, capacity, broad location, land requirement and commercial structure before assessing whether materially less harmful alternatives existed.

Commercial feasibility and land availability may legitimately form part of an alternatives exercise. They cannot, however, replace environmental comparison or be used to

define ‘reasonable’ so narrowly that only land already secured by the Applicant qualifies.

5.1.3 The land search preceded confirmation of a viable grid connection

Chapter 5 establishes the sequence clearly. The Applicant initially considered Norwich Main Substation as the point of connection and, in parallel, commenced a search for solar sites. It adopted a 20 km radius from Norwich Main and conducted an exercise within that area to identify landowners willing to participate in the Scheme. The Applicant states that its search produced the requisite amount of land and that voluntary agreements were secured.

Only subsequently did NGET advise that Norwich Main had neither sufficient existing capacity nor any opportunity for expansion to accommodate a 500 MW solar project. Norwich Main was therefore discounted as a viable point of connection.

This sequence is critical. The East Pye land package was not assembled because Norwich Main had confirmed capacity. It was assembled while the availability of that connection remained unresolved. The Applicant therefore selected and secured the land before establishing the infrastructure premise said to justify the location.

Once Norwich Main was ruled out, the original rationale for the 20 km search area disappeared. That should have triggered a fresh assessment of whether South Norfolk remained the appropriate broad location, whether a 500 MW scheme remained justified, whether the project should be materially reduced or reconfigured, whether a more compact scheme could be located around the actual point of connection, whether other regions or projects offered materially lower environmental impacts, and whether the Scheme should proceed at all.

The Applicant did not undertake that fundamental reassessment. Instead, it preserved the sites already identified and searched along the Bramford–Norwich 400 kV line for a new point of connection capable of serving them.

5.1.4 Failure to restart the site-selection exercise after Norwich Main failed

Chapter 5 states that, after Norwich Main was rejected, the Applicant moved southwards along the transmission line and ultimately selected a point of connection south of Great Moulton. It then concluded that the sites already identified around Norwich Main were ‘still viable’ because they also happened to fall within 20 km of Great Moulton and because the relevant landowners remained willing to enter agreements.

That is not a fresh or neutral site-selection exercise. It is retrospective validation of a land portfolio assembled under a failed grid assumption.

The 20 km radius is itself an Applicant-defined commercial parameter. The fact that the original sites fell within 20 km of both Norwich Main and Great Moulton does not establish that they were environmentally preferable, that the new connection strategy was optimal, or that the original search remained rational once Norwich Main was unavailable.

The process was therefore reversed. The Applicant did not identify the most appropriate solar land around a confirmed point of connection. It identified a point of connection partly by reference to land which it had already assembled.

That circularity is confirmed by the Applicant's treatment of alternative National Grid substation locations. Chapter 5 states that the transmission-line search was limited north of Diss because the Applicant preferred a location close to the solar sites already identified and for which willing landowners had been established. It accepts that land in Siting Zone 3 could constitute a reasonable alternative, but regarded it as less preferable because of its distance from the initially identified solar sites.

The Applicant therefore used the pre-existing land package to constrain the search for the new connection infrastructure and then relied upon the new connection infrastructure to justify retaining the pre-existing land package. That is a self-reinforcing process, not a transparent comparison of alternatives.

ISH1 has now clarified the chronology. The Applicant confirmed that four of the six stages of its siteselection exercise had already been completed while Norwich Main remained the geographi cal basis of the search and that, by that point, a suitable solar site had been established. When the connection strategy subsequently moved to Great Moulton, the exercise was not restarted t hrough a fresh unrestricted search from that new point of connection. The previously identified Sites were retained because they remained within approximately 20 km of Great Moulton.

BEPS does not contend that a complete restart was automatically required as a matter of law. T he material question is whether retaining the previously identified land was supported by an ad equate environmental comparison once the connection geography had changed. Continued inc lusion within approximately20 km of Great Moulton establishes geographical eligibility under th e Applicant's methodology; it does not, by itself, demonstrate that the same Sites would have e merged from an environmentally informed search beginning at Great Moulton.

ExQ1 now requires the Applicant to explain why a fresh Great Moulton-centred site-selection exercise would not have produced a materially different Scheme, extent or configurati on. That is the appropriate examination question.

5.1.5 Land availability was a materially conditioning factor

Landowner willingness was a legitimate deliverability consideration. BEPS does not contend that the Applicant was required to use compulsory acquisition to assemble speculative alternative solar sites. The issue is the weight given to land availability relative to environmental suitability, and whether the existing land package materially narrowed the environmental alternatives subsequently considered. The Applicant's own evidence shows that voluntary land availability was not merely one consideration among many. It was a decisive threshold criterion.

The Applicant states that it searched for landowners willing to participate, sought a land package of approximately 1,100 hectares and secured Sites 1–10 and the BESS site through voluntary agreements. It also explains that assembling land from as few ownerships as possible

was desirable in order to minimise project complexity, engineering issues, legal arrangements, mitigation requirements and cost.

At Stage 6 of the solar alternatives exercise, four Alternative Development Zones were identified which might in principle accommodate solar development and which could have offered shorter cable routes. However, the Applicant did not consider them further because sufficient land had not been made available to it. Chapter 5 states that, without alternative land sufficient to accommodate the Scheme being made available within those zones, the land was not considered further as a reasonable alternative.

The same approach was applied to the National Grid substation search. Land in Siting Zone 2 south of Station Road and west of the railway was not selected because a willing landowner was not forthcoming.

The Applicant further relies on its preference to avoid compulsory acquisition as far as practicable. That may explain its commercial preference, but it does not establish that land unavailable by voluntary agreement was environmentally unsuitable or technically incapable of accommodating development.

The statutory alternatives requirement is not limited to sites already controlled by the developer. Land availability may affect whether an option is ultimately deliverable, but the Applicant must still distinguish between land which is environmentally unsuitable, land which is technically unsuitable, land which is unavailable following a meaningful and documented inquiry, land which has not been tested because the Applicant already controls sufficient acreage elsewhere, and land which is simply less convenient or more expensive to acquire.

Chapter 5 does not maintain that distinction. It repeatedly treats ‘not made available to the Applicant’ as equivalent to ‘not a reasonable alternative.’

Nor is it sufficient to say that no alternative land came forward during consultation. Public consultation is not a comprehensive land-market exercise. Landowners cannot reasonably be expected to identify, assemble and volunteer an alternative 1,100-hectare scheme in order to correct deficiencies in the Applicant’s site-selection methodology.

The conclusion is unavoidable: East Pye was selected because the Applicant was able to secure a sufficiently large land package from willing owners. Environmental suitability was then assessed within that commercially assembled area.

The ExA has now required the Applicant to provide the early desktop planning review, clarify when landowner engagement began and explain how landowner agreement fed into the site-selection process. Those documents are directly relevant to determining the relative influence of environmental screening and land availability.

5.1.6 The Great Moulton point of connection was selected to preserve the land package

After Norwich Main failed, the Applicant focused its search along the Bramford–Norwich 400 kV line. The stated considerations included proximity to the overhead line, road access, reduction

in the length of diversion works and capital cost. Those are relevant factors, but the search was also explicitly constrained by the location of the solar sites already assembled.

Chapter 5 states that the stretch of transmission line considered was limited to north of Diss because the Applicant preferred a location close to the solar sites it had already identified and secured. It also states that Siting Zone 3 was less preferable because it was further from those sites.

Great Moulton has therefore not been demonstrated to be the environmentally preferable or strategically necessary place for a new National Grid substation. It was the location that best maintained the viability of the Applicant's existing land interests.

The circularity is clear. The land was first assembled around Norwich Main. Norwich Main was subsequently found to be unavailable. The Applicant retained the land, selected a new connection area partly because it was close to that land, and then relied on proximity to the new connection to justify the Scheme's location.

That process does not demonstrate that the Great Moulton substation or the associated solar sites represent an environmentally appropriate combination. It demonstrates only that they preserve the commercial scheme already assembled.

5.1.7 The site-selection process was not ecologically led

The Applicant states that statutory ecological designations, ancient woodland and other constraints were mapped and that designated sites were avoided. Avoiding the direct footprint of internationally or nationally designated land is a necessary starting point. It does not demonstrate that East Pye was selected through a comparative ecological assessment.

The Scheme remains spread across a complex and sensitive rural ecological network involving ancient and replanted ancient woodland, County Wildlife Sites, mature hedgerows and field-boundary trees, ponds and ghost ponds, protected-species habitat, bat commuting and foraging networks, rare arable flora, established stewardship habitat, watercourses, riparian corridors and functionally connected farmland and woodland habitats.

Chapter 5's design-evolution table records numerous later changes involving buffers, offsets, habitat corridors, woodland setbacks, removal of limited panel areas and the designation of mitigation land. Those changes demonstrate that ecological constraints were encountered after the land package had been selected. They do not establish that ecology led the original selection.

The Applicant's methodology therefore largely followed a pattern of identifying and securing sufficient willing land, removing the most obviously prohibited or designated areas, retaining the overall distributed scheme, responding to ecological evidence through buffers, landscaping and mitigation, and then concluding that the residual land was suitable. That is mitigation-led design, not ecological avoidance-led site selection.

The proper alternatives question was not simply whether panels could be kept outside the boundary of a statutory designation. It was whether a scheme of this scale should be located

across this ecological network at all, when materially less sensitive locations, reduced-scale options or non-development might avoid fragmentation and disturbance.

The Applicant has not provided a transparent comparative assessment showing that East Pye was ecologically preferable to other regions or alternative land areas. Nor has it shown that the ecological network affected by East Pye is capable of accommodating a 500 MW dispersed solar scheme without unacceptable fragmentation and cumulative harm.

5.1.8 Agricultural-land constraints were relaxed to preserve the Scheme

The treatment of agricultural land provides a clear example of project delivery overriding the Applicant's initial environmental screening.

The Applicant initially applied a preference against the use of BMV land. However, when the initial screening did not identify sufficient land to accommodate the preferred 500 MW scheme, Grade 3 land was reintroduced into the search.

The resulting Scheme contains approximately 829.1 hectares of BMV land, representing about 78.7% of the solar sites. The methodology therefore moved from an initial stated preference to avoid higher-quality land to a final scheme overwhelmingly occupying it.

The sequence is important. BMV land was initially treated as a constraint. Applying that constraint prevented the Applicant from assembling sufficient acreage. The constraint was then relaxed, land already secured from willing owners was retained, and alternative land was rejected where it was not available voluntarily.

That does not demonstrate that poorer-quality land was preferred where possible. It demonstrates that the Applicant adjusted its criteria when those criteria prevented delivery of the fixed 500 MW project.

The March 2026 Land Use Framework is not itself planning policy and expressly states that its principles are not intended to constitute a material consideration in NSIP decisions. BEPS does not rely upon it as an independent basis for refusal. It is, however, relevant evidence of the strategic land-use problem recognised by Government and the intended future direction of national spatial policy.

The Framework states that England has sufficient land to meet energy, food, infrastructure and nature objectives if land is used more efficiently and strategically. It identifies 'right use, right place' as a principle for future policy, supports the strategic safeguarding of productive farmland and records that its modelling did not direct renewables and other major land-use changes towards the most productive BMV land. It also anticipates a fairer and more efficient spatial distribution of solar and wind infrastructure.

The Framework does not decide this application. It does, however, reinforce the evidential question which Chapter 5 fails to answer: why should a predominantly BMV land package in South Norfolk be selected for this project when the regional need case is unproven and the Applicant's own initial methodology treated such land as a constraint?

5.1.9 The Applicant fixed the scale before assessing alternatives

Chapter 5 treats the 500 MW capacity as an immutable starting point. The Applicant calculated the land required to deliver that output, added land for substations, BESS, access, landscaping, biodiversity measures and cable infrastructure, and searched for approximately 1,100 hectares.

Alternatives were then tested according to whether they could reproduce that fixed project. 'Do nothing' was rejected because it would deliver none of the Applicant's proposed capacity. A smaller scheme was rejected because it would deliver less than 500 MW. Brownfield land was rejected because no single brownfield site could accommodate the whole scheme. Rooftops were rejected because assembling enough roofs to produce 500 MW would involve multiple ownerships. Alternative development zones were rejected unless sufficient land was available to accommodate the full Scheme. Other technologies were dismissed in part because the Applicant is itself a solar and storage developer.

That is not a meaningful assessment of alternatives in size, scale, configuration or technology. It tests only whether another option can deliver East Pye exactly as the Applicant wishes to promote it.

At minimum, the Applicant should have assessed a substantially smaller solar development, removal of the most ecologically, agriculturally and visually harmful sites, a compact scheme closer to the actual point of connection, a lower-capacity connection, phased development, solar without BESS, delayed or reduced BESS, alternative deployment through less constrained regions or projects, and no development.

None of those options can properly be dismissed solely because it would produce less than the Applicant's preferred 500 MW output.

5.1.10 No demonstrated regional need for East Pye in T7

National policy establishes an important and continuing need for low-carbon electricity infrastructure. BEPS does not dispute that general proposition. It does not follow, however, that every proposed solar NSIP is required in every transmission region, irrespective of regional capacity, queue position, environmental harm or the availability of other projects.

The Applicant relies on national need at a high level but provides no evidence that a further 500 MW transmission-connected solar project is required in South Norfolk or within T7 East Anglia.

The present strategic connections framework is regionally and technologically differentiated. The evidence assembled by BEPS indicates that the published combined solar figure for T7 in 2035 is 3,300 MW, while the transmission-only solar figure is 900 MW. Current Gate 2 solar projects in T7 total approximately 2,241.6 MW, and the wider planning, consented and under-construction T7 solar pipeline has been calculated at approximately 4,015 MW.

These figures should be supported in the final evidence schedule by consistently dated references to the relevant Ofgem, NESO, RESP and REPD material. Taken together, however, they demonstrate the central issue: T7 is already heavily subscribed for solar in aggregate, and the position is particularly pronounced for transmission-connected solar.

East Pye is not a small distribution-connected project serving a local deficit. It is a 500 MW transmission-connected scheme requiring a wholly new National Grid substation, major project substations and extensive cable infrastructure. It must therefore be considered against the transmission-specific regional position, not simply against a general national objective for more renewable electricity.

The Applicant has not identified any existing or forecast T7 transmission-solar deficit which East Pye is required to fill. It has not identified any regional capacity shortfall that would arise if East Pye were refused, which existing Gate 2 or consented T7 projects are assumed not to proceed, why East Pye should be preferred over those projects, why equivalent capacity should not be delivered in regions with a greater identified need, or why South Norfolk must bear the additional environmental burden of this Scheme.

The fact that regional capacity figures may not constitute absolute planning caps does not make them irrelevant. They are directly relevant to whether this particular project is strategically aligned, whether refusal would frustrate the regional pathway and whether the environmental harm of East Pye is necessary.

Nor can the Applicant rely on general 'optionality' or the possibility of attrition elsewhere. Optionality for developers and the system cannot be treated as a public benefit without accounting for the irreversible or long-duration environmental, agricultural and community costs imposed by preserving that optionality.

The proper question is what regional clean-power deficit would arise if East Pye Solar were not built. Chapter 5 and the Statement of Need do not provide an answer.

5.1.11 The position is particularly adverse for transmission solar

The distinction between combined solar capacity and transmission-connected solar is important.

The Applicant presents East Pye as a major national generating asset whose transmission connection allows its benefits to be experienced more widely. That characteristic also means the project must be assessed against the capacity already present in, or allocated to, the T7 transmission queue.

On the Ofgem/NESO figures relied upon by BEPS, Gate 2 transmission solar already substantially exceeds the published T7 transmission-only figure. East Pye would add a further 500 MW and would require construction of a new transmission node at Great Moulton.

The Applicant has not shown why further transmission solar should be concentrated in T7 notwithstanding the existing Gate 2 position, the wider regional pipeline, network congestion and curtailment risk, the cumulative proliferation of solar, BESS and grid infrastructure in South Norfolk, and the availability of other transmission regions with different capacity requirements.

In those circumstances, generic national need cannot establish that East Pye is required in this location.

5.1.12 The BESS does not cure the absence of a regional solar need case

Chapter 5 relies upon co-location with the BESS as part of the preferred technology solution. It states that the BESS could store electricity at times of lower demand, release it at times of need and enhance grid resilience and stability.

Those asserted benefits do not answer the regional solar-capacity issue.

The solar and BESS elements must be examined separately. The application materials identify Gate 2 prioritisation for the solar component, but do not appear to establish an equivalent Gate 2 position for the BESS. The contractual ability to import electricity is not necessarily the same as a secured Gate 2 allocation for the storage project.

The Applicant should therefore be required to clarify the precise Gate status of both the solar component and the BESS, whether the BESS may be delayed, reduced or omitted, whether the solar element may operate without it, what benefits remain if the BESS is not delivered, and whether BESS benefits are being relied upon to justify a solar project whose regional need has not been demonstrated.

The alternatives assessment should have considered solar-only, delayed-BESS, reduced-BESS and severed implementation scenarios. It cannot assume a fully integrated solar-and-storage scheme if delivery of each component is not equally secured.

5.1.13 The Applicant's own development portfolio reinforces the absence of demonstrated locational necessity

East Pye should also be considered in the context of the Applicant's own development portfolio. That context does not turn other Island Green Power projects into formal alternatives to East Pye. It does, however, materially weaken any suggestion that generic national renewable-energy need, portfolio 'optionality' or expected attrition demonstrates that this particular 500 MW Scheme must proceed in this particular location.

The Applicant's own Statement of Reasons confirms that East Pye Solar Limited is wholly within the Island Green Power corporate group. It also records that Island Green Power has delivered nearly 40 solar projects worldwide, including 21 in the UK, with more than 3 GW of developed capacity. Macquarie Asset Management increased its ownership of Island Green Power to 100% in 2025 and states that the UK business has a development pipeline exceeding 15 GW of utility-scale solar and battery-storage projects.

East Pye is therefore not a singular project upon which either the Applicant's renewable deployment programme or the national solar programme depends. It is one prospective development within a very substantial commercial portfolio.

That point is particularly important because Island Green Power is simultaneously promoting **The Droves Solar Farm**, another NSIP-scale project in Norfolk. Island Green Power describes The Droves as a proposed solar and BESS development between Swaffham and Castle Acre in West Norfolk and confirms that it is being promoted through the NSIP regime. The Droves is proposed at approximately 500 MW. East Pye is likewise a 500 MW-class

NSIP promoted by the same corporate group. The Applicant is therefore advancing approximately 1 GW through these two Norfolk projects alone.

That does not establish that The Droves is a mandatory substitute for East Pye, nor that an applicant with a large portfolio is entitled to less favourable treatment. The significance is different.

The Applicant relies upon a general national requirement for renewable generation while BEPS' preceding analysis shows no identified T7-specific solar deficit which East Pye is required to fill. The Applicant also relies upon the prospect of future attrition within the wider development pipeline. In that context, the existence of its own substantial portfolio demonstrates why a distinction must be maintained between **portfolio optionality** and **project-specific necessity**.

A developer pursuing many prospective schemes plainly obtains value from retaining multiple development options. Some schemes may obtain consent; some may be delayed by grid constraints; some may change; and some may ultimately fall away. Macquarie itself describes Island Green Power's expanding UK pipeline as the foundation for building a substantial operating portfolio. There is nothing inherently objectionable about that commercial strategy.

But it does not answer the planning question before the Examining Authority.

Portfolio optionality may explain why the Applicant wishes to preserve East Pye. It does not demonstrate why East Pye is necessary at this location or why its full 500 MW scale must be retained despite its environmental constraints.

The same distinction applies to attrition. If the generation pipeline substantially exceeds the capacity that will ultimately be required or connected, some projects will necessarily fail, be reduced, be delayed or not proceed. The possibility of that attrition cannot logically operate only as an argument for consenting every project now.

If attrition is expected, environmental suitability is an obvious consideration in determining which projects should ultimately proceed.

That is especially important at East Pye. The Applicant's own alternatives evidence shows that the broad 500 MW capacity was treated as a project requirement from the outset; sufficient land was sought to accommodate that capacity; the site-selection exercise was not restarted when the original Norwich Main connection strategy failed; land availability played a central role; and a materially smaller Scheme was not pursued as an alternative.

The result is a ten-Site development whose environmental cost is unusually high. The Applicant's own assessments acknowledge extensive significant landscape effects and irreversible loss or downgrading of BMV agricultural land. The wider evidence identifies a nationally important bat assemblage, multiple barbastelle maternity-colony landscapes, ancient woodland, sensitive water and groundwater receptors, important heritage assets, constrained rural highways and unresolved major-infrastructure interfaces.

Against that background, the Applicant cannot answer the alternatives question merely by saying that more projects are required in the national pipeline because some will fall away.

The appropriate question is the reverse:

If attrition is expected, why should East Pye—with this combination of landscape, ecological, agricultural, heritage, hydrological and infrastructure constraints—not be one of the projects that is reduced, relocated or does not proceed?

The existence of The Droves makes that question concrete. The same corporate group is advancing another approximately 500 MW NSIP in Norfolk at the same time. Island Green Power is also developing multiple other large-scale projects elsewhere in England and maintains a UK solar and BESS pipeline exceeding 15 GW. The national contribution available from the Applicant's development activity is therefore plainly not dependent upon preserving every hectare or every megawatt of East Pye.

The Applicant does not have to prove that The Droves itself could replace East Pye megawatt-for-megawatt. But the existence of that project, together with the much wider portfolio, makes it still more important to establish why East Pye's full scale is environmentally justified rather than merely commercially desirable.

This is particularly relevant to the Applicant's refusal to consider a materially smaller East Pye Scheme. If deleting the most sensitive Sites or Sub-Sites reduced East Pye below 500 MW, the Applicant cannot answer that alternative simply by pointing to the national need for solar. Its own portfolio demonstrates that the difference between a reduced East Pye and the preferred 500 MW project forms only part of a much larger development programme.

The alternatives exercise should therefore have tested whether the environmental objectives served by reduction could justify sacrificing some of the Applicant's preferred East Pye capacity. It should have asked whether development could be concentrated on the least constrained parts of the Order Limits; whether the most environmentally sensitive Sites could be removed altogether; and whether a reduced East Pye would represent a more proportionate contribution when considered alongside the substantial regional and Applicant pipelines.

It did not. Instead, the Applicant treated its 500 MW objective as something the alternatives process was required to preserve.

That is precisely why the portfolio evidence matters. It exposes the difference between what is required in the public interest and what is desirable from the perspective of maintaining a large commercial development pipeline.

The point is especially significant for compulsory acquisition. Island Green Power's ability to maintain portfolio optionality may be commercially valuable, but the same reasoning cannot establish that private land at East Pye is necessary for compulsory acquisition. The Applicant must ultimately justify the acquisition of that land by reference to the public benefits and requirements of East Pye itself, not the value to its parent company of retaining another 500 MW option within a multi-gigawatt portfolio.

Accordingly, this evidence does not establish that another Island Green Power project is a formal EIA alternative to East Pye. It establishes something more limited but directly relevant:

East Pye is one project within a very substantial Applicant portfolio, including another approximately 500 MW solar NSIP in Norfolk. Generalised national need, commercial portfolio optionality and possible attrition elsewhere therefore cannot establish that East Pye itself must retain its full 500 MW scale or occupy these ten Sites. The Applicant must demonstrate why this particular Scheme should survive the expected process of project attrition despite the exceptional environmental constraints of the landscape it has selected. It has not done so.

5.1.14 The 'do nothing' alternative is material and should be prioritised

Chapter 5 excludes the 'no development' scenario because it would have no prospect of delivering the generation and storage proposed by the Applicant. That reasoning is tautological. A no-development alternative will always deliver none of the proposed project. If that were sufficient to exclude it, the environmental null alternative could never be relevant.

The proper question is not whether East Pye would be built without consent. It is whether refusal would materially frustrate the relevant national or regional energy objectives. On the present evidence, the Applicant has not demonstrated that it would.

If East Pye were consented, T7 would receive a further 500 MW of transmission-connected solar in a region already heavily subscribed overall and particularly for transmission solar. The Scheme would require a wholly new National Grid substation and associated transmission infrastructure, occupy approximately 829 hectares of BMV land, fragment and disturb a sensitive ecological network, industrialise a wide area of rural South Norfolk, affect heritage settings, settlements and public rights of way, create risks to water resources and private water supplies, affect aviation interests and constrained rural roads, and add to the cumulative effects of other solar, BESS, transmission and development projects.

If East Pye were refused, the Applicant has not shown that the T7 regional solar pathway would fail. Refusal would avoid all direct environmental effects of the Scheme, retain productive BMV farmland, avoid a new Great Moulton transmission hub, preserve ecological, hydrological, heritage and landscape systems, allow delivery to continue through existing Gate 2, consented and other pipeline projects, and preserve future strategic options pending fuller spatial energy planning.

The Applicant may argue that some projects in the regional pipeline will not be delivered. That possibility does not establish that East Pye is required. The Applicant must identify the assumed attrition, explain why it is reasonable and demonstrate what residual deficit East Pye would fill.

It is not sufficient to impose the full environmental cost of East Pye upon South Norfolk merely to preserve speculative system or developer optionality.

In a region where solar capacity is already heavily subscribed, where transmission-connected capacity substantially exceeds the relevant regional figure, and where refusal has not been shown to create a regional shortfall, the 'do nothing' alternative is both realistic and

environmentally rational. It should therefore have been treated as a principal alternative and compared transparently against the proposed Scheme.

5.1.15 Design evolution does not cure the site-selection defect

The Applicant relies on iterative design changes, including panel removals, enlarged buffers, woodland setbacks, habitat corridors, landscape planting and changes responding to consultation. Some of those changes may reduce individual effects. They do not cure the foundational problem.

Design evolution has not altered the fact that the land was assembled before a viable connection was established, that the Norwich Main premise failed, that the Applicant retained the existing land package rather than commencing a genuinely fresh search, that Great Moulton was selected partly because it served that land package, that the Scheme remains dispersed over a very large area, that it remains predominantly on BMV land, that substantial ecological and landscape effects remain, that the new transmission-infrastructure cluster remains, and that no proper reduced-scale or no-development alternative has been assessed.

Design refinement can reduce impacts within an already selected site. It cannot demonstrate that the site itself was appropriately selected. The design-evolution exercise therefore shows how the Applicant attempted to accommodate environmental constraints within the preferred scheme. It does not show that environmental considerations determined the choice of land or the fundamental scale and location of the project.

5.1.16 Overall conclusion

The Applicant's evidence demonstrates that the East Pye Solar site was not selected because a viable grid connection existed at Norwich Main. Norwich Main had neither sufficient capacity nor any expansion opportunity for the project.

The Applicant nevertheless searched for and secured approximately 1,100 hectares from willing landowners around that assumed connection. When Norwich Main failed, it retained the land and sought a new point of connection capable of preserving it.

Great Moulton was selected partly because it was close to the already assembled sites. Alternative land and substation locations were rejected or not pursued where willing landowners had not made sufficient land available. Land availability therefore operated as the controlling criterion.

Ecological and other environmental constraints did not lead to a fresh site search. They were largely addressed through later buffers, setbacks and mitigation within the commercially assembled scheme.

The Applicant also fixed the project at 500 MW before assessing alternatives and then rejected no development, smaller-scale development, brownfield land, rooftops and alternative configurations because they would not reproduce the same predetermined project.

At the same time, the Applicant has not demonstrated that further transmission-connected solar is required in South Norfolk or T7 East Anglia. The available evidence indicates that T7 is

heavily subscribed for solar overall and particularly for transmission solar. The Applicant has not shown what regional deficit would arise if East Pye were refused.

In those circumstances, the extensive environmental, agricultural and community harm of East Pye is not justified by a demonstrated regional need. The ‘do nothing’ alternative should have been assessed seriously and, on the present evidence, should be preferred.

5.1.17 Remedies sought

BEPS requests that the Examining Authority require the Applicant to submit a supplementary and consolidated alternatives assessment which reconstructs the chronology of land assembly, grid discussions and site selection; identifies when the Applicant first knew that Norwich Main had insufficient capacity and no expansion opportunity; explains why the Norwich Main-derived land package was retained after the original connection premise failed; separates land availability and landowner willingness from environmental and technical suitability; identifies all alternative land areas considered, the inquiries made into their availability and the reasons they were rejected; and discloses the criteria, weighting, scoring and professional judgements applied to solar and National Grid substation alternatives.

The supplementary assessment should also examine whether the Great Moulton point of connection was selected principally to preserve land already assembled and should provide a comparative ecological, landscape, agricultural, heritage, hydrological, aviation, transport and public-rights-of-way assessment of the principal alternatives. It should assess reduced-scale, compact, phased, solar-only, BESS-deferred, BESS-reduced and no-development alternatives and should clarify the separate connection and Gate status of the solar and BESS components.

The Applicant should further be required to provide a complete and consistently dated comparison of East Pye with the T7 Gate 2 allocation, the transmission-specific solar figure and the wider planning and consented pipeline. It should identify the regional capacity shortfall, if any, that would arise if East Pye were not built and explain why the environmental harm of East Pye is necessary notwithstanding the existing T7 solar and transmission-solar position.

Unless the Applicant can demonstrate both a genuine regional need for this project and a defensible environmental basis for selecting this particular land, no material weight should be attached to its conclusion that the proposed Scheme is appropriately located.

If those deficiencies cannot be remedied fairly and comprehensively within the Examination timetable, the ‘do nothing’ alternative should be preferred and the application refused.

5.2 Legal and policy framework

The Applicant is correct that there is no universal planning-policy requirement to demonstrate that every nationally significant infrastructure project is the absolute ‘best option’ among all conceivable alternatives. NPS EN-1 makes that clear. That proposition does not, however, displace the separate statutory requirement imposed by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, nor the specific policy requirements applying to the siting of electricity infrastructure.

Paragraph 2 of Schedule 4 to the 2017 Regulations requires the Environmental Statement to include a description of the reasonable alternatives studied by the developer which are relevant to the proposed project and its specific characteristics. The examples given expressly include alternatives in terms of development design, technology, location, size and scale. The Environmental Statement must also identify the main reasons for selecting the chosen option and must include a comparison of environmental effects. Chapter 5 itself reproduces that requirement.

That requirement does not oblige the Applicant to identify the objectively best or least environmentally harmful option among every conceivable alternative. Nor does it require the Applicant to undertake an unconstrained national site search. It requires the Environmental Statement to describe the reasonable alternatives actually studied which are relevant to the project and its specific characteristics, and to identify the main reasons for the option chosen, taking environmental effects into account. Technical feasibility, grid availability, land availability and other deliverability considerations may legitimately inform which alternatives are reasonable; the material question is whether their influence, and the environmental comparison between the alternatives actually studied, is sufficiently transparent.

The August 2026 NPPF reinforces the environmental relevance of that exercise. Policy N2 requires significant biodiversity harm first to be avoided through location on an alternative site with less harmful impacts where such harm cannot otherwise be avoided, and requires agricultural land quality and grade to be taken into account, with poorer-quality land used where possible. Those provisions do not create a universal requirement to identify the least harmful possible site, but they reinforce the need to demonstrate that avoidance genuinely informed the Scheme's evolution before reliance was placed upon mitigation.

The obligation is therefore not satisfied merely by narrating the history of the Applicant's preferred proposal. Nor is it satisfied by showing that design changes were made after environmental constraints were identified. The Environmental Statement must disclose a genuine alternatives exercise in which reasonable alternatives were identified, studied and compared, and in which the reasons for the chosen option were explained by reference to their environmental, social, economic, technical and commercial consequences.

NPS EN-1 also recognises that the reasonableness of an alternative may depend upon technical and commercial feasibility. That does not permit the Applicant to define the project objective so narrowly that only the preferred Scheme is capable of meeting it. An alternative cannot properly be dismissed simply because it would provide less than the Applicant's chosen 500 MW capacity, would require a different configuration, would omit or defer the BESS, would involve a different land package, or would be less convenient to the Applicant's existing commercial arrangements. To reason in that way would convert the statutory comparison into a test of whether an alternative can reproduce the preferred project exactly.

NPS EN-5 is particularly important in relation to the new National Grid substation. Chapter 5 records that NPS EN-5 recognises that there will usually be a degree of flexibility in the location of associated substations and that applicants should consider their location and design carefully. It also recognises that engineering, environmental and community constraints may

require infrastructure to follow something other than the most direct or commercially convenient route.

The Horlock guidance, which the Applicant says informed its substation assessment, similarly requires the early consideration of environmental and community constraints. It requires applicants to make use of landform and existing features for screening, to protect habitats and landscape features as far as reasonably practicable, and to keep visual, noise and other environmental effects to a reasonably practicable minimum. Chapter 5 therefore accepts that environmental suitability was required to inform substation siting from the outset, not merely to be mitigated after a commercially convenient location had been identified.

The legal objection is accordingly a focused one. BEPS does not contend that the Applicant was required to assess every parcel of land or every theoretical technology in England. The objection is that the Applicant did not study a reasonable range of alternatives on a properly defined and environmentally neutral basis. It fixed the essential features of the Scheme in advance: a 500 MW solar project, associated BESS, approximately 1,100 hectares of land, a transmission connection and a land package assembled through willing owners. It then defined reasonableness by reference to whether an alternative could accommodate that predetermined project.

That approach screened out potentially less harmful alternatives by construction. Reduced-scale development was excluded because it would not deliver 500 MW. The ‘do nothing’ alternative was excluded because it would deliver none of the proposed generation. Brownfield and rooftop alternatives were tested against their ability to reproduce the entire 500 MW Scheme. Alternative development zones were not pursued where sufficient land had not been made available voluntarily. The assessment therefore did not begin by asking what development, if any, could be accommodated with the least environmental harm. It began by asking where the Applicant’s already defined project could be preserved.

5.3 The original site search was tied to Norwich Main

The chronology disclosed in Chapter 5 is central to understanding the weakness of the alternatives exercise.

The Applicant initially considered Norwich Main Substation as the point of connection for a 500 MW utility-scale solar project. In parallel with those grid discussions, it adopted a 20 km search radius around Norwich Main and began searching within that area for landowners willing to participate in the Scheme. Chapter 5 states expressly that the Applicant conducted a search for willing landowners within that Norwich Main radius, identified the requisite amount of land and secured voluntary agreements over the sites which later became the subject of the DCO application.

The Site Selection Assessment follows the same sequence. The original 20 km radius was selected because the Applicant considered it to represent a commercially viable cable-connection distance for a project of this scale. Land agents were then used to identify large landholdings and willing landowners within that area. The search therefore began with Norwich Main as its geographical and commercial anchor.

Only after that land search had been undertaken did NGET advise that Norwich Main had neither sufficient existing capacity nor any opportunity for expansion to accommodate a 500 MW solar project. Chapter 5 expressly records that Norwich Main was therefore discounted as a viable point of connection. The Site Selection Assessment confirms the same point.

This sequence is decisive. The East Pye land package was not assembled because a viable grid connection existed at Norwich Main. It was assembled while the availability of that connection remained unresolved. The Applicant therefore secured the land before it had established the infrastructure premise relied upon to justify its location.

The site-selection narrative should not therefore be described as grid-led. The grid assumption that defined the original search area proved to be wrong. Norwich Main could not accommodate the Scheme and could not be expanded to do so. The land was nevertheless retained.

Nor can the location be said to have emerged from an environmentally led search. The first operative step was not the identification of the least constrained land around a confirmed connection. It was the identification of willing landowners within an Applicant-defined commercial radius around a point of connection which subsequently failed.

The correct conclusion is that the land was assembled before the Applicant had established a viable point of connection. East Pye was therefore not selected because grid capacity existed at Norwich Main. Norwich Main had no capacity for the Scheme.

5.4 Failure to restart the site search when Norwich Main failed

The failure of Norwich Main should have triggered a fundamental reassessment of the Scheme. The original 20 km search radius had been justified by proximity to Norwich Main and by the Applicant's assessment of a commercially viable cable distance. Once Norwich Main was found to have no capacity and no expansion opportunity, the defining rationale for the original search area disappeared.

A neutral alternatives process would then have reconsidered the appropriate broad region, the appropriate project scale, whether a 500 MW development remained justified, whether a different solar site should be selected around the actual point of connection, whether the Scheme should be reduced or reconfigured, and whether the project should proceed at all. Given that the Applicant promotes multiple solar projects across England, it should also have considered whether the same claimed generation benefit could be delivered through a less environmentally damaging opportunity elsewhere in its portfolio, while recognising that the EIA duty is directed primarily to alternatives actually studied by the developer.

That fundamental reassessment did not occur. Instead, the Applicant retained the Norwich Main-derived sites and searched southwards along the Bramford–Norwich 400 kV line for a new National Grid substation capable of serving them.

The fact that the exercise was not restarted is not, by itself, the objection. The evidential issue is whether the previously selected land remained environmentally justified once Great Moulton replaced Norwich Main as the relevant connection geography. A parcel remaining within the

Applicant's 20 km search radius establishes continued geographical eligibility; it does not establish comparative environmental suitability.

Chapter 5 states that, following NGET's confirmation that Norwich Main was unavailable, the Applicant selected the point of connection south of Great Moulton. It then treated the sites previously identified around Norwich Main as continuing to be viable because they also happened to fall within 20 km of the new Great Moulton point of connection and because the landowners had already demonstrated their willingness to enter voluntary agreements.

That reasoning does not amount to a fresh site-selection exercise. It validates the old sites against a new connection after the event. The fact that the previously assembled land happened to fall within another Applicant-defined 20 km radius does not demonstrate that the land was environmentally preferable, that Great Moulton was the best available strategic location, or that the original site search remained rational once its grid premise had failed.

The circularity becomes still clearer in the National Grid substation assessment. Chapter 5 states that the stretch of transmission line considered was limited to land north of Diss because the Applicant preferred a location in proximity to the solar sites already identified as suitable and for which a willing landowner had been established. It also accepts that areas within Siting Zone 3 could present a reasonable alternative, but says that the distance from the initially identified solar sites made that zone less preferable.

The Site Selection Assessment makes the same point. Great Moulton was preferred partly because of its proximity to the identified solar sites, while the more southerly Yaxley-area option was treated as less preferable because it was further from them.

This demonstrates that the Applicant did not conduct a fresh search from the actual grid opportunity outwards. The already assembled land was used to constrain the search for the new connection, and the new connection was then used to justify retention of the already assembled land.

The Applicant did not select the solar sites by reference to the actual point of connection. It selected the point of connection partly by reference to solar sites already assembled around a point of connection that had failed.

ISH1 has now confirmed that four of six stages had already been completed before the connection strategy changed. The Applicant's assertion that the same Sites would have emerged had Great Moulton been the original starting point therefore requires supporting evidence, particularly because a different geographical starting point potentially changes cable requirements, collecting substations, access, BMV effects, landscape and heritage relationships, ecology, hydrology and proximity to settlements.

5.5 Land availability materially conditioned site selection

Chapter 5 and the Site Selection Assessment show that land availability was not merely one consideration among several. It operated as a decisive threshold criterion throughout the process.

The Applicant states that it searched specifically for landowners willing to participate in the Scheme. It calculated that a 500 MW connection would require a substantial landholding and ultimately searched for approximately 1,100 hectares to accommodate solar arrays, substations, the BESS, access, landscaping, biodiversity measures and cable infrastructure. The search yielded the land required, and voluntary agreements were secured over Sites 1–10 and the BESS site.

The Applicant also explains that it preferred to assemble the Scheme through as few ownerships as possible. It says this would reduce engineering, design, legal and mitigation complexity. Those are intelligible commercial considerations, but they also show that the site-selection process favoured large consolidated landholdings and ease of contractual assembly, rather than beginning with a comparative assessment of environmental suitability.

The significance of this approach is confirmed by the treatment of alternative land. At Stage 6 of the solar site-selection process, the Applicant identified four Alternative Development Zones within the search area. Chapter 5 acknowledges that land within those zones might be suitable for solar development and that greater proximity to the point of connection could reduce cable length, environmental disturbance and disruption. Nevertheless, the zones were not considered further because sufficient land had not been made available to the Applicant.

The Site Selection Assessment is explicit that potentially suitable alternative development areas were not treated as reasonable alternatives where sufficient land had not been made available. This is a critical admission. It shows that potentially suitable land was screened out not because a comparative environmental assessment demonstrated that it was inferior, but because the Applicant had not secured it voluntarily.

The same approach was applied to the National Grid substation. Chapter 5 states that land in Siting Zone 2 south of Station Road and west of the railway was not selected because a willing landowner was not forthcoming. That reason is distinct from environmental or engineering unsuitability. It is a land-control reason.

The Applicant also relies on a preference to avoid compulsory acquisition. That preference may be relevant to commercial feasibility and to the proportional use of compulsory powers. It does not establish that land outside the Applicant's voluntary agreements was technically incapable of accommodating the development or environmentally less suitable. Nor does it justify treating untested land as though it were not a reasonable alternative at all.

The legal criticism must therefore remain precise. Land availability is capable of being relevant to the reasonableness and deliverability of an alternative. But it cannot substitute for identifying and comparing environmental alternatives. Nor can it be treated as determinative without evidence of what inquiries were made, whether the land was genuinely unavailable, whether different scales or configurations could have been accommodated, and whether compulsory powers or alternative commercial arrangements were realistically capable of being considered.

Chapter 5 does not draw those distinctions. It conflates land which is not already available to this developer on voluntary terms with land which is not reasonable, suitable or deliverable. That is not the same thing.

The Applicant's approach is especially weak because it did not undertake a comprehensive test of alternative availability once sufficient land had been secured. The Site Selection Assessment records that the Applicant did not approach further landowners after it considered that sufficient suitable land had already been identified. The conclusion that no better available land existed is therefore not supported by a full market or ownership inquiry. The search stopped because the Applicant already had enough land for its preferred scheme.

Nor does the fact that alternative land did not 'come forward' during consultation cure the defect. Statutory consultation is not a substitute for a properly designed site-selection process. It is not a comprehensive land-market exercise, and neighbouring landowners cannot reasonably be expected to identify, assemble and volunteer hundreds of hectares in order to demonstrate that the Applicant's preferred land package is environmentally inferior.

The overall inference is strong. East Pye was selected because the Applicant could assemble approximately 1,100 hectares from willing owners within a commercially acceptable area. The point of connection was then adapted to serve that land. Environmental constraints were assessed and mitigated within the land package after it had been secured.

The Applicant has therefore conflated 'available to this developer on voluntary terms' with 'environmentally suitable' and 'reasonable.' That is the central defect in the site-selection exercise.

5.6 The Great Moulton substation was selected to preserve the assembled sites

The Applicant presents the Great Moulton substation location as the outcome of a technical and environmental search along the Bramford–Norwich 400 kV transmission line after Norwich Main had been discounted. The underlying evidence shows, however, that the search was constrained from the outset by the location of the solar sites already assembled under the failed Norwich Main premise.

Chapter 5 states that, after NGET confirmed that a new National Grid substation would be required, the Applicant focused its search along the Bramford–Norwich 400 kV line between Norwich and Diss. Proximity to the existing overhead line, access from the strategic road network, the ability to accommodate abnormal indivisible loads and the reduction of additional connection infrastructure were all treated as relevant considerations. Those factors are legitimate. They do not, however, explain why the search was limited in the particular way chosen or why Great Moulton was preferred over all other potentially reasonable locations.

The Applicant expressly states that the stretch of transmission line considered was limited to land north of Diss because it preferred a location close to the solar sites already identified as suitable and for which willing landowners had been established. This is a significant admission. The geographic scope of the substation search was not defined solely by network capacity, engineering constraints or environmental suitability. It was defined partly by the need to preserve a pre-existing land portfolio.

The Applicant's treatment of Siting Zone 3 confirms the same point. Chapter 5 accepts that areas within Siting Zone 3 could present a reasonable alternative. It nevertheless concludes that the zone was less preferable because of its distance from the initially identified solar sites. The principal disadvantage was therefore not that the zone had been shown to be incapable of accommodating a substation or that its environmental effects were necessarily unacceptable. It was that it was less convenient for land already assembled elsewhere.

The Site Selection Assessment similarly records that the Great Moulton area was selected partly because of its proximity to the identified solar sites. By contrast, the Yaxley-area option was treated as less preferable in part because it was the furthest from those sites, which would increase cable length, electrical losses and associated environmental effects. The comparison therefore began from an assumption that the existing solar sites should be retained and asked which substation location best served them.

That approach is circular. The solar land had been assembled around Norwich Main before the Applicant knew that Norwich Main could not accommodate the Scheme. When that connection failed, the Applicant did not conduct a fresh strategic search for the most appropriate combination of solar land and point of connection. It retained the land and selected a new point of connection partly because it was close to that land. It then relied upon proximity to the new point of connection as a justification for retaining the original sites.

The later comparison between Options 4A and 4B does not cure that defect. Option 4A was affected by overlap with the consented solar development north of Station Road, while Option 4B was preferred because it lay within Flood Zone 1 and avoided a direct conflict with a public right of way through the proposed substation footprint. Those considerations may explain why Option 4B was preferred within the already selected Great Moulton area. They do not demonstrate that Great Moulton itself was the most appropriate strategic location for a new 400 kV substation.

The alternatives assessment also does not provide a transparent comparison showing that Great Moulton was preferable in landscape, heritage, aviation, ecological or community terms. The assessment largely records broad constraints and applies a high-level RAG review. It does not disclose a weighted multi-criteria analysis demonstrating how environmental harm was balanced against commercial convenience, land control, cable length and access. Nor does it show whether lower-lying or more visually contained locations were comparatively assessed against the exposed Great Moulton landform.

This omission is particularly important because NPS EN-5 recognises that there is usually flexibility in the location of associated substations and requires applicants to consider location and design carefully. Chapter 5 also invokes the Horlock Rules, which require applicants to take advantage of screening provided by landform and existing features and to keep visual, noise and other environmental effects to a reasonably practicable minimum. A search directed principally toward preserving pre-assembled solar sites does not demonstrate compliance with that environmental siting discipline.

Great Moulton was therefore not demonstrated to be the strategically or environmentally optimum location for a new National Grid substation. It was the location that best preserved the Applicant's existing land assembly.

5.7 The site-selection process was not ecologically led

The Applicant states that ecological designations and environmental constraints were taken into account through its staged site-selection process. It says that internationally and nationally designated biodiversity sites were identified and avoided and that environmental considerations informed later design evolution. That evidence shows that ecological information was considered. It does not show that ecological suitability led the selection of East Pye.

The chronology demonstrates otherwise. The original search began with a 20 km radius around Norwich Main and a search for landowners willing to participate. The Applicant then sought approximately 1,100 hectares to accommodate the fixed 500 MW Scheme and associated infrastructure. Broad environmental filters were subsequently applied, but land availability remained decisive, and alternative development zones were not pursued where sufficient land had not been made available voluntarily.

The ecological exercise was therefore conducted within a commercially assembled land package. It did not begin with a comparative landscape-scale assessment of ecological sensitivity followed by selection of the least constrained location.

The Applicant's methodology placed considerable emphasis on the avoidance of formal designations. Chapter 5 states that Special Areas of Conservation, Special Protection Areas, Ramsar sites, Sites of Special Scientific Interest, National Nature Reserves and ancient woodland were identified and avoided. It also states that no international, national or local statutory designated ecological sites lie within the solar sites.

That is not the same as demonstrating ecological suitability. Avoiding the mapped footprint of a statutory designation does not avoid effects on functionally connected land, habitat networks, protected species, groundwater-dependent habitats, ancient woodland settings, bat commuting routes, ponds, hedgerows, watercourses or locally designated sites. Nor does it establish that the chosen area was less ecologically harmful than reasonable alternatives.

The Scheme remains distributed across a sensitive ecological network involving ancient and replanted ancient woodland, County Wildlife Sites, mature hedgerows, field-boundary trees, ponds and ghost ponds, watercourses, riparian corridors, bat roosting and foraging habitat, rare arable flora, established stewardship land and other functionally connected farmland habitats. The detailed evidence is addressed in the Ecology and Biodiversity Written Representation and is not repeated here. The significance for Chapter 5 is that these constraints should have informed the choice of location and scale before the land package was fixed.

Chapter 5's own design-evolution account demonstrates that many ecological constraints were addressed only after the sites had been selected. Across the various sub-sites, the Applicant records repeated refinements to buffers from hedgerows, trees, woodland, ponds,

water features and field margins; extensions to ancient woodland offsets; creation or strengthening of habitat corridors; removal of limited panel areas; and designation of land for ecological mitigation.

Examples include the removal of Sub-Site 3A after access and ecological issues associated with Spring Wood Ancient Replanted Woodland were recognised; enlargement of buffers around Spring Wood; removal of panels between woodland blocks in Site 5 to maintain ecological connectivity; increased mitigation around Fritton Grange Meadows County Wildlife Site; and refinement of ancient woodland buffers in Site 7. These changes may reduce particular impacts. They also demonstrate that significant ecological constraints were accommodated within the design after land selection rather than used to direct the Scheme elsewhere.

The distinction is important. Avoidance in the mitigation hierarchy is not achieved merely by moving panels a short distance within the same ecological network or by placing buffers around features while retaining development on surrounding functionally connected land. Genuine avoidance may require removal of development areas, substantial reduction in scale, relocation to a less sensitive landscape or non-development.

The Applicant's approach was instead principally mitigation-led. It identified and secured sufficient land, excluded the most obvious statutory constraints, retained the overall dispersed scheme and then adjusted offsets and mitigation as further ecological evidence emerged. That process does not establish that East Pye was selected because it was ecologically preferable.

Nor has the Applicant provided a transparent comparative ecological assessment of the principal alternative areas. The Site Selection Assessment identifies potentially unconstrained land and broad development zones, but it does not present a systematic comparison of ecological network function, protected-species risk, habitat connectivity, hydrological dependence, ancient woodland setting or long-term restoration potential between East Pye and the alternative areas. The absence of voluntary land agreements then prevented those alternative areas from being examined further.

The conclusion is therefore not that ecology was ignored. It is that ecology did not control the site-selection outcome. Ecological constraints were treated primarily as matters for later design refinement and mitigation within a land package selected for other reasons.

Avoiding the footprint of a statutory designation is not equivalent to selecting the least ecologically harmful location. The Applicant has not demonstrated through comparative evidence that East Pye was preferable to reasonable alternative areas or that the residual ecological harm was unavoidable.

5.8 The agricultural-land methodology confirms that project delivery overrode environmental screening

The Applicant's treatment of agricultural land provides one of the clearest examples of the site-selection criteria being adjusted to preserve the preferred project.

NPS EN-3 states that agricultural land classification should not be the sole or predominant factor in site selection, but that where agricultural land is necessary, poorer-quality land should be preferred to higher-quality land and the use of Best and Most Versatile land should be avoided where possible. Chapter 5 acknowledges those principles and states that agricultural land classification was treated as an important site-selection factor.

The Applicant's staged methodology initially reflected that policy. At the earlier screening stage, Grades 1, 2 and 3 agricultural land were excluded in order to identify the most unconstrained land and to apply a preference against BMV land.

That approach did not identify sufficient land to accommodate the preferred Scheme. The Applicant therefore proceeded to a later stage in which Grade 3 agricultural land was brought back into the search. Chapter 5 explains that doing so introduced a substantial area of land capable of accommodating solar development and allowed the Applicant to identify four Alternative Development Zones. Those zones were then not examined further where sufficient land had not been made available voluntarily.

The resulting Scheme is overwhelmingly located on BMV land. The Applicant's detailed agricultural surveys identify approximately 829.1 hectares of BMV land within the sites, amounting to about 78.7% of the solar-site area. This is not a marginal or incidental use of higher-quality agricultural land. It is the predominant land type affected by the Scheme.

The logical sequence is significant. BMV land was initially treated as a constraint. Applying that constraint prevented the assembly of enough land for the Applicant's preferred 500 MW development. The constraint was then relaxed. The Applicant retained land already secured from willing owners and concluded that other areas were not reasonable alternatives where equivalent acreage had not been made available.

That is not evidence-led avoidance. It is the adjustment of environmental criteria to accommodate a fixed commercial project.

The Applicant says that its understanding of agricultural quality developed as detailed surveys were completed and that some areas of BMV land were removed or retained for mitigation during design evolution. Those changes do not answer the site-selection objection. Once detailed evidence showed that the Scheme was predominantly BMV, the Applicant should have reconsidered the location, extent and capacity of the Scheme. It did not conduct a new strategic search based on the actual agricultural-quality evidence.

The design-evolution table confirms that BMV land was removed only in discrete instances where it coincided with other constraints. Sub-Site 3A was removed following a combination of access, ancient woodland, ecological, unexploded ordnance, heritage and Grade 2 BMV issues. Site 6 was retained for agriculture and mitigation because it was entirely Grade 2 and affected by heritage constraints. Some BMV land was also removed from Sites 8 and 9 in response to landscape, heritage or other considerations.

Those changes show that the Applicant was capable of avoiding BMV land where multiple constraints made development especially difficult. They do not demonstrate that poorer-

quality land was preferred across the Scheme as a whole. The final outcome remains one in which nearly four-fifths of the solar sites comprise BMV land.

The Applicant also relies upon provisional mapping available during initial site selection. Chapter 5 states that the wider area was shown largely as undifferentiated Grade 3 and that later surveys provided a more detailed understanding of Grades 2, 3a and 3b. That explains why the precise proportion may not have been known at the earliest stage. It does not justify retaining the Scheme unchanged once the detailed survey evidence became available.

A lawful and environmentally credible alternatives exercise should be capable of responding to better evidence. Where later surveys reveal that a preferred land package is predominantly BMV, the Applicant should revisit whether the project can be reduced, relocated, made more compact or directed toward land of lower agricultural quality. Treating the later evidence merely as a matter for panel-level refinement is inadequate.

The March 2026 Land Use Framework must be used with appropriate caution. It expressly states that its principles are separate from the planning process and are not intended to constitute a material consideration in decisions on nationally significant infrastructure projects. BEPS does not rely upon it as an independent policy test or as a direct basis for refusal.

The Framework is nevertheless relevant as evidence of the strategic land-use problem identified by Government and the direction in which future national policy and spatial planning are intended to develop. It states that England has enough land to meet development, energy, food-production and nature-recovery objectives if land is used efficiently, multifunctionally and strategically. It identifies ‘right use, right place’ as a guiding principle and states that land use should reflect local context, including soil quality, heritage, environmental pressures and social and economic factors.

The Framework also states that its spatial analysis did not direct renewables and other major land-use changes toward the most productive BMV land. It says that change should play to the strengths of the land and records consultation support for directing non-agricultural land uses toward land less suited to high-value sustainable agriculture, thereby retaining more BMV land in food production.

Government also commits in the Framework to maintaining overall food production in England and to safeguarding the best and most versatile farmland from permanent land-use change. It recognises that efficient spatial planning should minimise trade-offs between energy, food security, nature recovery and climate resilience.

The Framework does not determine the East Pye application. It does, however, reinforce the evidential weakness of an alternatives assessment that moved from an initial preference to avoid BMV land to a final Scheme occupying approximately 829.1 hectares of it, without conducting a renewed strategic search once the true agricultural quality was known.

The Applicant has therefore not demonstrated that poorer-quality land was preferred where possible. It has demonstrated that the BMV constraint was relaxed when it prevented delivery of the fixed 500 MW Scheme, and that alternative areas were then excluded where sufficient

voluntary land agreements were unavailable. That is a land-assembly outcome, not an environmentally led agricultural-land strategy.

5.9 The project scale was fixed before alternatives were assessed

The Applicant did not begin by asking what scale or configuration of development could be accommodated in South Norfolk with the least environmental harm. It began with a 500 MW connection requirement and treated delivery of that capacity as an essential and effectively immutable project objective.

Chapter 5 states that the Applicant's grid connection agreement was for 500 MW and that, applying the land-use assumptions in NPS EN-3, an initial area of approximately 500 to 810 hectares would be needed for the solar panels alone. The Applicant then increased its search requirement to approximately 1,100 hectares to accommodate the solar arrays together with substations, the BESS, access infrastructure, landscaping, biodiversity measures and cable routes.

The scale of the Scheme therefore preceded the alternatives exercise. The Applicant first determined the output and associated land requirement and then asked whether possible alternatives could reproduce that entire predetermined project. It did not first examine the environmental capacity of the receiving area and derive an appropriate project scale from that evidence.

This predetermined scale materially affected every category of alternative considered. Chapter 5 excludes a smaller development because it would not deliver the full generating capacity sought by the Applicant. It excludes 'no development' because that scenario would not deliver any of the proposed generation or storage. It rejects brownfield land because no single identified brownfield site within the search area was large enough to accommodate a 500 MW utility-scale solar project. It rejects commercial rooftops because assembling sufficient roof area to reproduce the same 500 MW capacity would require agreements across numerous ownerships and a geographically extensive network of sites.

The same circularity affected the search for alternative agricultural land. Potential Development Areas and Alternative Development Zones were assessed by reference to whether sufficient land was available to accommodate the whole Scheme. Where approximately 1,100 hectares had not been made available to the Applicant, the land was not pursued as a reasonable alternative, even where Chapter 5 acknowledged that it might in principle be suitable for solar development or might reduce cable length and associated disturbance.

The analysis therefore does not establish that a 500 MW Scheme was environmentally appropriate at East Pye. It establishes only that alternatives unable to reproduce a 500 MW Scheme were excluded from further consideration.

This is not meaningful consideration of alternatives in size, scale or configuration. Schedule 4 to the EIA Regulations expressly identifies size and scale as examples of the alternatives which may require examination. That requirement would have little practical content if an applicant

could fix its preferred capacity in advance and then exclude all smaller or differently configured options because they would not deliver the same output.

The Applicant's reliance on NPS EN-1 does not answer that criticism. Commercial feasibility may legitimately inform whether an alternative is reasonable, but it does not permit the project objective to be defined as the delivery of the preferred Scheme in its entirety. Otherwise, the preferred capacity becomes both the premise and the conclusion of the assessment.

A smaller development could still deliver substantial renewable generation while avoiding the most environmentally harmful parts of the Order Limits. A reduced scheme might omit sites affected by the highest concentrations of BMV land, ancient woodland connectivity, protected-species activity, heritage setting harm, flood risk, residential proximity or constrained construction access. The relevant comparison is not between 500 MW and no public benefit at all. It is between different levels of renewable-energy benefit and the different environmental costs required to secure them.

The Applicant should also have assessed a more compact development concentrated closer to the actual Great Moulton point of connection. Such an option could potentially reduce the length of cable corridors, the number of affected communities, the extent of habitat fragmentation, construction traffic across the wider road network and the overall geographic spread of industrial infrastructure. The Applicant instead retained a dispersed group of solar sites originally assembled around Norwich Main because they also fell within its chosen 20 km commercial radius of Great Moulton.

The solar and BESS elements should also have been tested separately. The Applicant treated co-located solar and storage as the preferred technology solution, but did not adequately assess solar without BESS, delayed BESS, reduced BESS or a smaller storage facility. Those alternatives are particularly relevant where the solar and storage components have different Gate 2 and deliverability positions.

A lower-capacity connection should likewise have been examined. The Applicant has not demonstrated that the full 500 MW export capacity was the only technically or commercially reasonable connection option once Norwich Main failed. A reduced connection might have allowed a smaller land requirement, fewer project substations, less cable infrastructure and avoidance of the most sensitive sites.

Phased development was another obvious alternative. The Applicant could have assessed whether a smaller first phase could proceed while regional capacity, BESS deliverability, ecological effects and network requirements were reviewed. Instead, the alternatives exercise assumes delivery of the complete project concept from the outset.

The assessment should also have considered whether equivalent national benefits could be delivered through the Applicant's other projects or through deployment in regions with greater identified capacity requirements. That does not mean that the EIA Regulations impose an unrestricted obligation to compare every scheme in a developer's national portfolio. It does mean that the Applicant cannot rely upon a generic national need for solar while treating the

particular location, capacity and land package of East Pye as fixed and beyond comparative examination.

The Applicant should therefore have examined, at minimum, a substantially smaller scheme, removal of the most environmentally damaging sites, a compact scheme closer to the actual point of connection, solar without BESS, delayed or reduced BESS, a lower-capacity connection, phased development, delivery through less harmful projects or regions, and no development.

By failing to assess those alternatives, Chapter 5 does not demonstrate why the environmental harm associated with the full 500 MW Scheme was necessary. It demonstrates that the Applicant defined the project so narrowly that alternatives capable of reducing that harm were excluded by construction.

5.10 No evidence of regional need for East Pye Solar in T7

National policy does not require the Applicant to establish an unmet T7 capacity deficit as a precondition to consent. The August 2026 NPPF expressly states that applicants should not generally be required to demonstrate generic need for renewable or low-carbon energy development. The T7 pipeline evidence is nevertheless relevant to the weight which can properly be attached to claims that East Pye's Gate 2 status itself demonstrates project-specific or locational necessity. BEPS does not contend that the 3,300 MW figure is a statutory cap, although NESO clearly states that it reflects a regional capacity limit for that type of energy generation. Gate 2 status demonstrates progression through the connections process; it does not establish that this particular dispersed configuration is environmentally necessary or uniquely appropriate.

The objection is that the Applicant relies on generic national need to justify this particular 500 MW transmission-connected project while providing no evidence that additional transmission solar of this scale is required in South Norfolk or in the T7 East Anglia region.

That distinction matters because the reformed connections framework is not geographically or technologically undifferentiated. Government, Ofgem and NESO now use regional and technology-specific permitted capacities to align the connections queue with the Clean Power 2030 and 2035 pathways. T7 has a published combined transmission-and-distribution solar capacity of 3,300 MW for 2035. Within that regional figure, the published transmission solar capacity is 900 MW.

NESO's January 2026 response confirms that current Gate 2 solar projects in T7 total 2,241.6 MW, comprising 380.8 MW in Phase 1 and 1,860.8 MW in Phase 2. NESO further states that 1,365.22 MW of the Phase 2 capacity relates to transmission-connected capacity, although that figure also includes certain large distribution-connected projects and excludes small and medium distribution projects.

Those figures require careful interpretation. The 3,300 MW figure is the combined T7 regional capacity, while the 900 MW figure relates to transmission solar. The 2,241.6 MW Gate 2 total includes both transmission and distribution solar, and NESO's published transmission-related figure is not necessarily identical to the category of directly transmission-connected projects

alone. The precise comparison should therefore be presented transparently and without combining unlike categories.

Even with that qualification, the position is clear. Gate 2 solar already represents a substantial proportion of the combined T7 capacity, while the transmission-related portion of the Gate 2 allocation already exceeds the published 900 MW transmission figure. East Pye would add a further 500 MW transmission-connected project to that position.

BEPS has separately estimated, using the RESP and Renewable Energy Planning Database material assembled in its evidence, that the wider planning, consented and under-construction solar pipeline in T7 is approximately 4,015 MW. That estimate should be supported in the final evidence schedule by a project-by-project table, a consistent reference date and a clear explanation of whether each project is transmission-connected, distribution-connected, operational, under construction, consented or awaiting determination.

Subject to that final verification, the wider pipeline estimate exceeds the published 3,300 MW combined regional capacity by approximately 715 MW. That does not mean that every project in the pipeline will necessarily be built, nor that the regional capacity operates as an absolute planning prohibition. It does demonstrate that the regional context is one of substantial competition and potential over-provision, not an evidenced shortage which only East Pye can meet.

The position is particularly important for transmission solar. East Pye is not a modest distribution-connected installation serving a local demand centre. It is a 500 MW transmission asset requiring a new National Grid substation, multiple project substations, overhead-line works and extensive cable infrastructure.

The environmental burden of the Scheme therefore arises not merely from the solar panels but from creating a new transmission connection node capable of accommodating development at this scale. That burden requires a correspondingly clear explanation of why further transmission-connected solar is needed in T7.

The Applicant has not provided such an explanation. It has not produced a regional capacity balance identifying existing operational solar, consented schemes, Gate 2 projects, projects under construction and the remaining regional requirement. It has not separated transmission and distribution capacity consistently. It has not identified the anticipated attrition within the existing pipeline or demonstrated why East Pye is needed to fill any residual shortfall.

The Applicant's general reliance on national need does not answer those questions. National need establishes that substantial renewable generation is required across the system. It does not establish that every proposed 500 MW project is required in every region irrespective of the regional capacity allocation, existing queue, competing pipeline and environmental consequences.

T7 is not simply heavily subscribed when solar is considered in aggregate. The over-provision is particularly pronounced for transmission-related solar, which is the category most directly relevant to East Pye. On the published NESO figures, transmission-related Gate 2 capacity

already exceeds the 900 MW transmission figure before East Pye's further 500 MW contribution is considered.

The Applicant was therefore required to explain why East Pye remains strategically necessary notwithstanding that position. Chapter 5 and the Statement of Need do not do so.

5.11 The Applicant has not demonstrated a separate locational necessity for this configuration

The alternatives issue does not depend upon BEPS proving that East Pye is unnecessary. The relevant question is whether any claimed locational advantage of the selected configuration has been demonstrated strongly enough to explain why this particular dispersed land package was retained despite the environmental constraints now established.

The Applicant is likely to respond that the regional permitted capacities are not legal planning caps and that some projects holding Gate 2 status, planning permission or connection agreements may never be constructed. Neither proposition resolves the objection.

BEPS accepts that the T7 capacity figures do not constitute an automatic statutory prohibition on consent above a specified number of megawatts. The connections framework and the development-consent regime perform different functions. The regional figures nevertheless remain directly relevant evidence of strategic alignment, network need and the amount and type of generation already available to meet the regional pathway.

Ofgem approved the TMO4+ reforms precisely because the former queue was substantially larger than the generation capacity required and did not provide a reliable signal for efficient network investment. The reformed process applies readiness and strategic-alignment criteria and uses regional and technology-specific capacities to determine which projects should receive Gate 2 status.

It would therefore be artificial for the Applicant to rely upon its grid position when that supports the Scheme, but dismiss the wider regional allocation and competing Gate 2 capacity as irrelevant when considering whether the environmental harm of the Scheme is necessary.

The possibility of attrition also requires evidence rather than assertion. The Applicant cannot merely state that some other projects may not proceed and assume that East Pye must therefore be consented as insurance. It should identify the attrition rate relied upon, the basis for that assumption, the development status of the relevant competing projects and the residual capacity shortfall said to remain after attrition.

No such analysis is presented in Chapter 5. The Applicant has not identified which of the existing T7 Gate 2 projects are assumed to fail, why they are less likely to be delivered than East Pye, or why East Pye should be preferred over projects which may be smaller, more compact, consented, under construction or environmentally less harmful.

Nor has the Applicant compared East Pye against the wider T7 planning and consented pipeline. The fact that planning applications and connection offers do not guarantee

construction is not a reason to ignore them. It is a reason to assess their likelihood of delivery transparently.

The Applicant also cannot treat ‘optionality’ as an unqualified public benefit. Maintaining multiple competing projects may give NESO, developers or investors flexibility if some schemes fail. But preserving that flexibility has environmental consequences. In East Pye’s case, it would require a new 400 kV substation, extensive BMV land occupation, major construction activity and long-duration effects across a large rural area.

The public interest cannot be assessed by counting only the value of optional generation while disregarding the environmental and community cost of maintaining that option. If East Pye is sought primarily as a reserve against possible attrition elsewhere, that should be stated and evaluated explicitly.

The regional evidence is also relevant to the distribution of development. The Applicant has not explained why equivalent renewable capacity could not be delivered in a region with a greater identified requirement, or through projects which do not require the same level of new transmission infrastructure and environmental disruption.

This does not impose an obligation upon the Applicant to solve the national spatial allocation of solar by itself. It does, however, require a rational explanation for relying on national need to justify severe site-specific harm in a region where the relevant technology is already heavily subscribed.

The central question is straightforward: what regional deficit would arise if East Pye were not built?

The Applicant has not identified any quantified T7 solar shortfall that would result from refusal. It has not shown that the 2035 regional pathway would fail, that the transmission allocation would be unmet or that existing Gate 2 and pipeline projects would be insufficient after a reasonable allowance for attrition.

On the evidence currently available, refusal of East Pye has not been shown to frustrate the T7 pathway. The Applicant has therefore not established that the environmental consequences of this particular project are regionally necessary.

5.12 The BESS does not cure the absence of a solar need case

The Applicant relies on the co-located BESS as an important part of its preferred technology solution. Chapter 5 says that the BESS would store electricity at times of lower demand, release energy when needed and enhance grid resilience and stability. It relies upon those asserted benefits when explaining why solar PV combined with storage was selected for the Order Limits.

The BESS also cannot be relied upon automatically as an advantage of the preferred alternative. Work No. 2 remains Gate 1. Any comparison which attributes balancing, curtailment-reduction or co-location benefits to the preferred Scheme must therefore recognise that those benefits

depend upon the BESS obtaining a connection and becoming operational on a compatible timetable.

Those benefits do not establish a regional need for the solar component. Nor can they be relied upon without distinguishing the connection and Gate status of the two elements.

The application material records a grid agreement allowing up to 500 MW of solar export and up to 500 MW of import capability associated with storage. It separately identifies Gate 2 prioritisation for the solar component. On the material presently available, the Applicant has not demonstrated that the BESS has secured an equivalent Gate 2 position.

A contractual ability to import electricity is not necessarily the same as strategic alignment and Gate 2 status for a storage project. The Applicant should therefore clarify precisely what has been secured for each component and whether the BESS is presently deliverable within the same programme as the solar development.

This matters because the solar need case cannot be strengthened by assuming benefits from a storage component whose strategic position and delivery are not equivalently secured. If the BESS may be delayed, reduced, omitted or unable to obtain Gate 2 status, the Scheme may operate principally as a 500 MW solar generator without the flexibility benefits relied upon in Chapter 5.

The BESS is also potentially severable from the solar development. The draft DCO and project parameters must therefore be examined to determine whether solar could be constructed and operated without the BESS, whether the BESS could be constructed later, and whether either component could proceed at a materially different scale.

Chapter 5 does not assess those scenarios as reasonable alternatives. It does not compare the environmental and operational consequences of solar-only development, a delayed BESS, a reduced BESS or removal of the storage component. Instead, it treats solar and BESS as a single preferred concept.

The regional battery position makes that omission more significant. NESO's January 2026 figures show 1,711.6 MW of Gate 2 battery offers in T7 against initially allocated capacities of 200 MW for Phase 1 and 200 MW for Phase 2. NESO also records 4,283.1 MW of Gate 1 battery offers in T7 and expressly describes the battery position in T7 as significantly oversupplied.

The oversupply is not confined to T7. NESO reported in March 2026 that 83.2 GW of batteries had received Gate 2 status nationally and that built, operational and Gate 2 battery capacity together totalled 90.6 GW, more than three times the Government's 24–29 GW capacity range for 2035. NESO stated that, given this position, only batteries that were ready and met specified protection criteria were likely to qualify in the next application window.

NESO also identifies concrete disadvantages arising from battery oversupply, including the risk of consumer-funded network investment for projects that may not be needed and delays to other connections caused by finite network-delivery capacity and competition for substation bays and grid supply points.

The Applicant therefore cannot rely upon a generic national need for storage to assume that East Pye's BESS is strategically necessary. T7 already contains Gate 2 battery capacity substantially above the regional permitted capacities, as well as a much larger Gate 1 queue.

The correct alternatives assessment should have examined the solar and BESS components independently and in combination. It should have assessed whether either component is required regionally, whether the claimed co-location benefits are secured, whether the BESS could be omitted or reduced, and what environmental infrastructure would remain necessary in each implementation scenario.

The omission reinforces the wider defect. The Scheme was defined as 500 MW solar plus up to 500 MW BESS before the regional capacity, Gate status and deliverability of each component had been resolved. The alternatives exercise then treated that combined concept as fixed rather than testing whether either component should proceed at all or at the proposed scale.

5.13 The Applicant's own development portfolio reinforces the absence of demonstrated locational necessity

The Applicant's wider development portfolio is relevant context to the alternatives and planning-balance analysis. BEPS does not contend that The Droves, or any other Island Green Power project, had to be assessed as a formal substitute for East Pye under Schedule 4 to the 2017 EIA Regulations. The point is narrower. The Applicant cannot rely upon generic national renewable-energy need, commercial portfolio optionality or possible future attrition elsewhere as proof that East Pye itself must retain its full 500 MW scale in this particular location.

That distinction matters because Chapter 5 shows that the Applicant fixed the essential characteristics of East Pye before undertaking the alternatives exercise. It selected a 500 MW solar project with associated BESS, identified a land requirement of approximately 1,100 hectares, assembled land through willing owners and then assessed alternatives largely by asking whether they could reproduce that predetermined project. Smaller development was not considered further because it would not deliver the full generating capacity sought; "no development" was rejected because it would deliver none of the proposed generation or storage; and alternative areas close to the eventual point of connection were rejected where the land had not been made available to the Applicant. The Applicant itself records that land closer to the point of connection could have reduced cable length, disruption, environmental disturbance and cost, but was not treated as a reasonable alternative because willing-landowner agreements had not been secured.

The Applicant's own wider portfolio makes it particularly important not to confuse those commercial constraints with public necessity.

East Pye is not an isolated development upon which Island Green Power's contribution to UK renewable deployment depends. Island Green Power states that it has developed almost 40 solar projects worldwide, more than 3 GW of renewable-energy capacity, and 21 projects in the United Kingdom. In 2025 Macquarie Asset Management acquired the remaining 50% interest in Island Green Power's UK business, taking its ownership to 100%. Macquarie reports that Island

Green Power has a UK development pipeline of more than 15 GW. East Pye Solar is therefore one prospective project within a very substantial developer portfolio.

The comparison with The Droves is particularly relevant. Island Green Power is also promoting The Droves Solar Farm in West Norfolk, between Swaffham and Castle Acre. The same developer group is therefore advancing two separate solar NSIPs of up to 500 MW each in Norfolk: East Pye Solar and The Droves. Those two projects alone represent up to approximately 1 GW of prospective solar capacity.

That fact does not prove that The Droves is environmentally preferable to East Pye, nor that it is a legally required alternative. Its significance is that it exposes the distinction between maintaining a development portfolio and demonstrating the necessity of an individual project. Where the Applicant has not demonstrated an unmet regional deficit, and where the same corporate group is simultaneously advancing another 500 MW Norfolk solar NSIP and a much wider UK portfolio, there is no evidential basis for treating East Pye's full 500 MW capacity as a fixed public requirement.

A developer with a large pipeline has an understandable commercial interest in preserving multiple projects while grid arrangements, consenting outcomes, financing and construction programmes remain uncertain. Some projects may proceed, others may be reduced or delayed, and others may ultimately fall away. Maintaining a substantial portfolio therefore provides commercial optionality against future attrition.

That may be a rational development strategy. It is not evidence that every project within the portfolio is necessary in the public interest.

The same reasoning applies to any reliance upon pipeline attrition. If the response to an already substantial national or regional pipeline is that not all projects will ultimately be delivered, that proposition cannot logically establish that East Pye itself must be consented. It establishes only uncertainty about which projects will ultimately proceed. Possible attrition elsewhere does not establish necessity for East Pye Solar. If attrition is expected, the question is not why East Pye should automatically be protected from it, but why a project with this concentration of environmental constraints should survive at its full 500 MW scale. Environmental suitability is an obvious criterion by which an oversized development pipeline should ultimately be reduced.

The relevant alternatives question then becomes more, not less, important: why should East Pye be one of the projects preserved at its full 500 MW scale?

That question is particularly acute because the Applicant's own alternatives assessment did not derive East Pye's scale from the environmental capacity of the chosen landscape. It began with the 500 MW connection objective and treated the ability to reproduce that capacity as a criterion for determining whether alternatives were reasonable. Chapter 5 expressly states that a smaller generating development was not considered further. The Applicant's process therefore protected the preferred capacity from environmental comparison rather than testing whether environmental constraints justified a materially smaller project.

The portfolio evidence shows why that approach requires scrutiny. A reduction in East Pye would not mean that Island Green Power ceased to be capable of contributing materially to UK

solar deployment. It is simultaneously advancing The Droves at up to 500 MW and has a much wider UK development pipeline exceeding 15 GW.

That does not permit the Examining Authority to substitute one commercial project for another. It does, however, mean that the Applicant cannot credibly treat every megawatt of East Pye's preferred 500 MW capacity as though it were uniquely required to meet national policy.

The distinction is important when considering a materially reduced East Pye. Chapter 5 should have tested whether removing the most environmentally constrained Sites or Sub-Sites, reducing the development footprint, shortening cable routes or concentrating development nearer the eventual point of connection would produce a materially less harmful Scheme, even if the result delivered less than 500 MW. The Applicant instead excluded smaller capacity at the outset because it would not meet its chosen project objective.

The existence of the wider Island Green Power portfolio reinforces why that reasoning is circular. The Applicant has treated the preservation of 500 MW at East Pye as an essential project requirement while simultaneously pursuing gigawatts of other prospective solar development. The commercial desirability of retaining the full East Pye option cannot itself establish that the public interest requires the same outcome.

Nor does possible attrition elsewhere cure that problem. If attrition is expected within an oversized development pipeline, environmental suitability should be one of the factors determining which projects are reduced, redesigned or do not proceed. The possibility that another scheme may fail cannot be used as a generic justification for accepting avoidable harm at East Pye.

That is particularly important because the environmental consequences of retaining East Pye are not marginal. The Applicant's own site-selection policy recognises that environmental and landscape sensitivity should be avoided where possible and identifies ecology, biodiversity, landscape, water resources and cultural heritage as relevant considerations. Yet the final Scheme remains dispersed across ten Sites and requires extensive cable and grid infrastructure. Its own landscape assessment records significant adverse effects at numerous high- and medium-sensitivity receptors, including public rights of way, settlement edges and the Boudicca Way. The wider Written Representation identifies additional constraints concerning nationally important bats, BMV land, heritage, water, transport and infrastructure.

The Applicant therefore needs to establish why those specific environmental costs are justified by the additional public benefit of East Pye itself. Generic national need cannot answer that question. Nor can the commercial value of retaining East Pye within a multi-gigawatt portfolio.

The portfolio evidence is also relevant to the Applicant's reliance upon willing landowners. Chapter 5 records that potentially suitable areas nearer the final point of connection were rejected because the land had not been made available voluntarily, even though the Applicant acknowledged that shorter cable routes could reduce disruption, environmental disturbance and cost. The result was that existing commercial land arrangements helped determine which alternatives were treated as reasonable.

That may explain why the Applicant preferred to preserve the East Pye land package. It does not demonstrate that the resulting location is environmentally necessary.

A similar distinction will arise in relation to compulsory acquisition. Portfolio optionality may have commercial value to Island Green Power and Macquarie, but it cannot establish that particular private land interests at East Pye are required in the public interest. Any compulsory-acquisition case must ultimately be justified by the requirements and public benefits of East Pye itself.

The correct conclusion is therefore not that The Droves must replace East Pye or that the Examining Authority should choose between Island Green Power projects. It is that the Applicant's own portfolio makes the absence of demonstrated locational necessity for East Pye more material.

If national renewable deployment can be pursued through numerous projects within the Applicant's own portfolio, including another 500 MW NSIP in Norfolk, the Applicant must explain why the environmental constraints identified at East Pye did not justify a smaller, more compact or differently configured Scheme, or the removal of its most damaging Sites.

It has not done so.

The significance of this portfolio evidence is therefore not that The Droves or any other Island Green Power project is a mandatory substitute for East Pye. It is that the Applicant cannot rely upon generic national need, portfolio optionality or possible attrition elsewhere as proof that East Pye must retain its full 500 MW scale in this particular landscape. The Applicant must demonstrate the specific additional public benefit of preserving East Pye at that scale despite the availability of a substantial wider project portfolio. That proposition becomes still more important when the environmental consequences of the site selected for East Pye are considered.

5.14 The environmental consequences of selecting this extensive area of South Norfolk are exceptionally severe

The significance of the alternatives defects cannot be considered in isolation from the environmental consequences of the chosen Scheme. The detailed evidence is set out in BEPS's thematic Written Representations and is not repeated in full here. For Chapter 5 purposes, the relevant point is that the consequences of selecting East Pye are extensive, overlapping and geographically dispersed.

The Scheme would occupy approximately 829.1 hectares of BMV agricultural land, representing around 78.7% of the solar sites. This is not a limited encroachment onto isolated pockets of higher-quality land. BMV land is the predominant agricultural resource affected by the proposal.

The ecological effects extend beyond the direct footprint of statutory designations. The Scheme is distributed across a connected rural network of ancient and replanted ancient woodland,

County Wildlife Sites, mature hedgerows, ponds, watercourses, riparian corridors, bat commuting and foraging routes, rare arable flora, protected-species habitat and established stewardship land.

The Ecology and Biodiversity Written Representation explains why buffers and later habitat measures do not necessarily preserve the functional relationships between those features. The alternatives significance is that these constraints should have influenced whether development was located across this network in the first place, rather than being treated principally as matters for mitigation after land assembly.

The Scheme also gives rise to substantial hydrological concerns. Its dispersed layout crosses multiple catchments and watercourses and affects areas where residents and businesses depend upon private water supplies. Construction, piling, cable installation, changes to runoff patterns and potential pollution pathways create risks which are addressed in the Water Environment and Ground Conditions representations.

Landscape effects arise from the conversion of a large, tranquil and predominantly agricultural area into a dispersed energy landscape. The development would introduce extensive panel fields, fencing, substations, BESS infrastructure, access tracks, lighting and grid works across multiple settlements and parish landscapes. The Great Moulton connection area would contain particularly intensive infrastructure, including the new National Grid substation and associated project substations.

The Heritage Written Representation identifies effects on the settings and interrelationships of listed churches, farmhouses, historic settlements, conservation areas and non-designated heritage assets. These effects cannot be reduced to the absence of development within the statutory boundary of a heritage asset. They arise from altered rural surroundings, long views, construction activity and the cumulative industrialisation of historic parish landscapes.

Construction would involve prolonged HGV movements and abnormal indivisible loads over a rural road network characterised by narrow lanes, constrained junctions, residential frontages, schools, care facilities, historic buildings and limited passing opportunities. The Traffic and Transport Written Representation addresses the feasibility and amenity consequences in detail.

Aviation interests are also affected. East Pye lies close to active operations at Tibenham and Seething airfields. The submitted Tibenham mapping places parts of East Pye within the airfield's 5 km safeguarding area and close to mapped glider launch-failure areas. The Applicant's own design-evolution account records that panels were removed from part of Site 10B following discussions with Seething Airfield concerning engine-failure considerations. Those matters demonstrate that aviation was a site-suitability constraint, not merely a later design detail.

Public rights of way would be diverted, disrupted or enclosed by infrastructure during construction and operation. The effects concern not only legal continuity of routes but also the loss of tranquillity, openness, long rural views and the recreational experience of the landscape.

The Scheme must also be considered cumulatively. South Norfolk is already affected by multiple solar, BESS, transmission, housing and other infrastructure proposals. The Great Moulton substation may become a focal point for a wider energy-infrastructure cluster, while projects such as Tasway, FIELD Long Stratton BESS, Wacton BESS and other developments share environmental, transport and grid receptors with East Pye.

The effects would not be confined to a short construction period. They would arise during construction, operation, maintenance and decommissioning, with some landscape and ecological effects persisting for decades. The new National Grid infrastructure may also be permanent even if the solar arrays are ultimately removed.

The relevance to the alternatives assessment is not simply that East Pye causes harm. Most nationally significant infrastructure causes some adverse effects. The relevant point is the scale, breadth and interaction of the harms, considered against the absence of a demonstrated regional need for this particular project.

Where a proposal would affect predominantly BMV land, fragment a sensitive ecological network, alter heritage settings, create hydrological and private-water risks, industrialise a tranquil landscape, burden constrained rural roads, affect aviation interests, disrupt public access and create a new transmission-infrastructure cluster, the Applicant must provide a correspondingly rigorous explanation of why that harm is necessary.

It has not done so. It relies on generic national need, a fixed 500 MW project objective and a site-selection process led substantially by voluntary land availability. It has not demonstrated that refusal would create a T7 shortfall or that materially less harmful projects and configurations could not deliver the required strategic benefits.

The severity of the environmental consequences therefore makes the ‘do nothing’ alternative materially important. Non-development would avoid the direct and cumulative harms identified across the thematic Written Representations while, on the evidence currently available, not preventing the T7 regional solar pathway from being met.

The null alternative could not properly be excluded merely because it would deliver none of the Applicant’s preferred output. Where regional need is unproven and the environmental harm is exceptionally extensive, ‘do nothing’ must be examined as a serious and potentially preferable alternative.

5.15 The future baseline and the no-development scenario

The EIA Regulations require the Environmental Statement to describe the relevant aspects of the current state of the environment and the likely evolution of that state without implementation of the development, so far as natural changes can be assessed with reasonable effort. That future baseline is distinct from a general legal requirement to treat “do nothing” as a preferred reasonable alternative.

BEPS therefore does not contend that the Applicant was required to prove that development is preferable to no development before the application could proceed. The material point is that the environmental consequences of East Pye, and claimed benefits such as ecological

enhancement or changes in agricultural management, must be assessed against a properly characterised future baseline without the Scheme.

The relevant question is not whether East Pye would be built if consent were refused. The relevant question is whether non-development would materially frustrate the delivery of the applicable national and regional energy objectives and, if not, whether the avoidance of the Scheme's environmental effects would make that outcome preferable.

On the evidence presently available, the Applicant has not demonstrated that refusal of East Pye would prevent the T7 regional solar pathway from being met. The published T7 combined solar figure for 2035 is 3,300 MW, while the transmission-only figure is 900 MW. The Gate 2 solar capacity already allocated within T7 is approximately 2,241.6 MW, and the wider planning, consented and under-construction pipeline assembled by BEPS is estimated at approximately 4,015 MW. The transmission-related position is particularly significant because East Pye is itself a 500 MW transmission-connected project requiring a new National Grid substation and extensive associated infrastructure.

Those regional figures are not relied upon as absolute planning caps. They are relied upon as evidence that the regional context is one of substantial existing provision and competition, not a demonstrated shortfall which only East Pye can meet. The Applicant has not identified what T7 deficit would remain if East Pye were refused, which existing Gate 2 or consented projects are assumed not to proceed, or why East Pye is required as the scheme which must be retained against possible attrition elsewhere.

The comparison with East Pye is therefore materially different from the comparison presented in Chapter 5.

If East Pye proceeds, T7 would receive a further 500 MW transmission-scale solar project in a region already heavily subscribed for solar overall and particularly for transmission-related solar. The Scheme would require a new National Grid substation and connection node at Great Moulton, together with project substations, cable infrastructure and associated works. It would occupy approximately 829.1 hectares of BMV agricultural land, amounting to around 78.7% of the solar sites, and would introduce extensive development across a sensitive rural landscape.

It would also give rise to the environmental and community effects summarised in the preceding section and addressed in detail in the thematic Written Representations. Those include fragmentation of ecological networks, effects on ancient woodland and County Wildlife Sites, protected-species risks, hydrological and private water-supply concerns, heritage-setting harm, landscape industrialisation, aviation constraints, disruption of public rights of way, prolonged construction traffic and cumulative interaction with other solar, BESS, transmission and development projects.

If East Pye does not proceed, the Applicant has not shown that the T7 regional pathway would fail. Refusal would avoid the direct and cumulative effects of the Scheme, retain productive BMV land, avoid the creation of a new Great Moulton transmission cluster and preserve the ecological, hydrological, landscape and heritage systems affected by the proposal.

Non-development would not prevent renewable deployment from continuing through projects which already hold Gate 2 status, projects which are consented or under construction, and other schemes within the wider regional and national pipeline. It would also preserve the ability for future deployment to be directed through more coherent strategic spatial planning and toward projects or regions where additional capacity is demonstrably required.

That is particularly relevant because the Land Use Framework anticipates future spatial coordination of energy infrastructure and the Strategic Spatial Energy Plan is intended to consider societal and environmental factors when spatially optimising generation and storage. Although the Framework is not itself a material consideration in this DCO decision, it confirms that fuller strategic spatial planning is still developing and that future infrastructure distribution is intended to be more coherent and evidence-led.

The Applicant may contend that preserving a larger pipeline provides useful optionality because some projects may not ultimately be delivered. That cannot be treated as a complete answer. Optionality has a cost. In this case, maintaining East Pye as an additional option would expose South Norfolk to the full environmental, agricultural and community consequences of a very large transmission-connected scheme, without a demonstrated regional deficit.

The Applicant must therefore do more than assert that some other schemes may fail. It must identify a credible attrition assumption, show how that assumption affects the T7 balance and demonstrate that East Pye is required to avoid a remaining shortfall. It has not done so.

Where the relevant region already has sufficient or excessive solar capacity, particularly at transmission level, and where refusal has not been shown to frustrate the regional pathway, 'do nothing' is not an unrealistic alternative. It is an environmentally beneficial and strategically rational outcome which should have been assessed and given substantial weight.

On the evidence presently available, non-development would avoid extensive harm without creating any demonstrated regional energy deficit. It should therefore have been treated as a principal and potentially preferable alternative rather than excluded by definition.

5.16 Failure of design evolution to cure the site-selection defect

The Applicant relies heavily on design evolution as evidence that the Scheme has responded to environmental constraints and consultation. Chapter 5 records panel removals, increased buffers, revised setbacks, altered mitigation areas, changes to project substations, removal of some development from flood-risk areas, and modifications responding to heritage, ecological, residential and aviation concerns.

BEPS accepts that some of those changes may reduce particular local effects. The removal of development from discrete areas, enlargement of woodland or residential buffers and modification of layouts may all represent improvements when compared with earlier iterations. They do not, however, cure the underlying site-selection defect.

That defect became substantially more serious once the Applicant's own ecological surveys established that the Scheme area supports a bat assemblage of national importance. Barbastelle was recorded widely across the Order Limits, multiple maternity colonies occur

around the Scheme, and overlapping Core Sustenance Zones extend across the development landscape. The Norfolk Barbastelle Study Group has subsequently identified further maternity-colony evidence and called for additional survey and radiotracking to establish the full colony network and functional habitat use.

At that point the Applicant was no longer dealing with an ordinary agricultural site containing a few discrete bat features capable of protection by local buffers. It had identified a landscape-scale ecological constraint of national importance.

That should have triggered a fundamental reconsideration of the site-selection decision.

The proper response to discovering that the chosen development area lies within a nationally important bat landscape is not merely to move individual panel rows, widen isolated buffers or retain selected hedgerows. It is to ask whether the Scheme should continue to occupy that landscape at all.

The mitigation hierarchy requires avoidance before mitigation. Once the Applicant knew that the Order Limits overlapped a nationally important assemblage and a landscape supporting multiple barbastelle maternity colonies, the first question should therefore have been whether the Scheme, or substantial parts of it, could be relocated outside that functional landscape. That reconsideration did not occur.

Instead, the Applicant continued to treat the already assembled land package as the development area and sought to accommodate the ecological evidence within it through buffers, retained corridors, habitat management, planting and later protected-species controls. That is design mitigation within a selected site. It is not avoidance of the site-selection conflict.

The sequence matters because the land package itself had already been assembled before a viable point of connection was established. Norwich Main subsequently proved incapable of accommodating the Scheme. The Applicant nevertheless retained the land package and selected a new connection location partly because it preserved that existing assembly.

No amount of later design refinement alters that sequence. The essential location decision had already been made before the grid premise was resolved and before the full ecological significance of the area was understood.

The Applicant's subsequent bat evidence should therefore have operated as a second fundamental trigger for reconsideration. Discovery of national ecological importance was capable of invalidating the assumption that the existing land package should continue to define the Scheme. Instead, the project objective remained substantially unchanged.

That is particularly difficult to justify for barbastelle because the relevant receptor is not confined to an individual roost tree or woodland edge. The Applicant's own evidence demonstrates landscape-scale use. The maternity colonies depend upon connected woodland, mature hedgerows, dark commuting routes, ponds, watercourses and feeding habitat across the wider South Norfolk Claylands. The ecological function at risk therefore extends across the very landscape in which the solar sites are dispersed.

Local mitigation cannot answer a landscape-scale location problem.

A 30 m woodland buffer may reduce one edge effect. Retaining one hedge may preserve one potential flight line. A lighting restriction may protect one corridor. None of those measures demonstrates that repeated industrial development across overlapping maternity-colony support habitat is the appropriate starting point.

The Applicant should instead have undertaken a strategic avoidance exercise asking which parts of the Scheme fall within the functional landscape of the nationally important bat assemblage and whether development should be removed from that landscape altogether.

The Norfolk Barbastelle Study Group's evidence makes that obligation more, not less, pressing. It states that further work is required to establish the complete maternity-colony distribution, principal foraging areas, commuting routes and relationships between woodland and feeding habitat. That means the Applicant has proceeded with detailed layout refinement before the full spatial extent of the constraint has even been established.

The logical sequence has therefore been reversed:

- the Scheme area was selected;
- the land package was preserved;
- nationally important bat use was discovered;
- the full maternity-colony network remains incompletely understood;
- and the Applicant has responded by attempting to mitigate development within the same landscape.

The correct sequence should have been:

- identify national ecological importance;
- define the full functional landscape;
- avoid that landscape where practicable;
- then assess whether any residual development can proceed without compromising ecological function.

That distinction is fundamental.

The Scheme also remains geographically dispersed across multiple sites and parish landscapes. Although some panel areas have been removed, the proposal continues to extend over a very large area of South Norfolk and continues to require extensive cable routes, multiple access points, construction compounds and project infrastructure.

The Great Moulton infrastructure cluster also remains. The final Scheme still requires a new National Grid substation, associated overhead-line works, project substations, cable infrastructure and the BESS in the same broad connection area. Moving the National Grid substation from Option 4A to 4B does not demonstrate that Great Moulton itself was appropriately selected.

The agricultural position has likewise not been fundamentally altered. Despite limited removals of Grade 2 or Grade 3a land in some locations, approximately 829.1 hectares of BMV land remain within the solar sites. The Scheme therefore remains predominantly located on the land type which the Applicant initially sought to avoid.

Nor has design evolution altered the regional position. East Pye remains a 500 MW transmission-connected solar project in a T7 region already heavily subscribed for solar overall and particularly at transmission level. The Applicant has still not demonstrated what regional shortfall East Pye is required to fill.

Most importantly, design evolution has not produced a genuine reassessment of scale or configuration. The Applicant has not demonstrated that, after discovering the national importance of the bat landscape, it reconsidered whether whole Sites or groups of Sites should be removed; whether the Scheme should be materially reduced; whether development should be concentrated outside the principal maternity-colony support landscape; whether a different land package should be pursued; or whether East Pye should cease to proceed in this location. That is the critical failure.

Once the Applicant's own surveys established that the selected landscape supports a nationally important bat assemblage and multiple barbastelle maternity colonies, the appropriate application of the mitigation hierarchy was not simply to refine the layout within that landscape. It was to reconsider whether the landscape should be developed at all.

Design refinement can reduce effects within a selected site. It cannot prove that the site itself was appropriately selected.

ISH1 has added a further material consideration. The Applicant confirmed that the geographical spread of the Scheme itself contributes to the requirement for multiple project substations and extensive interconnecting electrical infrastructure. Those environmental effects are therefore not wholly intrinsic to generating approximately 500 MW of solar electricity; they are partly consequences of the particular dispersed configuration selected. That makes the environmental comparison of alternative configurations especially material.

Chapter 5 therefore shows that the Applicant sought to accommodate increasingly serious environmental constraints within an already chosen project. It does not demonstrate that the discovery of national ecological importance was allowed to determine the choice of land, the scale of the Scheme or the decision to proceed. On the contrary, the evidence indicates that the project was preserved and the nationally important landscape was progressively redesigned around it.

5.17 Overall conclusion

The Applicant's own evidence shows that the search for willing landowners began before a viable grid connection had been established. Norwich Main had neither sufficient capacity nor any opportunity for expansion to accommodate the proposed 500 MW project.

When that premise failed, the Applicant did not undertake a genuinely fresh site search. It retained the land already assembled and sought a new point of connection capable of serving it.

Great Moulton was selected partly because it was close to those pre-identified solar sites. Alternative locations were treated as less preferable where they were further from the assembled land, and alternative land was not pursued where sufficient acreage had not been made available voluntarily.

Land availability therefore operated as a controlling criterion. Environmental constraints were addressed principally through later buffers, setbacks, mitigation and limited panel removals rather than through a fresh comparative search for a less harmful location.

The Applicant also fixed the Scheme at 500 MW before alternatives were assessed and then excluded smaller, differently configured and null alternatives because they would not reproduce the same predetermined output and land requirement.

At the same time, T7 is already heavily subscribed for solar overall and particularly for transmission-related solar. The Applicant has not shown that refusal of East Pye would create any regional capacity shortfall or prevent the T7 pathway from being achieved.

The resulting examination question is not whether East Pye is the ‘best’ conceivable site or whether the Applicant was legally required to restart the whole exercise from scratch. It is whether the reasonable alternatives actually studied were compared transparently and on an adequate environmental basis, and whether the Applicant has satisfactorily explained why the Norwich Main-derived land package remained the appropriate configuration once the connection point and the environmental evidence had materially changed. ISH1 has made that question materially sharper by confirming that four of the six site-selection stages had already been completed before the connection strategy changed and that the Scheme’s dispersed geography itself contributes to the extent of the electrical infrastructure now required.

In light of the scale of the environmental, agricultural and community harm and the absence of demonstrated regional need, the ‘do nothing’ alternative should have been treated as reasonable, material and potentially preferable.

5.18 Remedies sought

BEPS requests that the Examining Authority require the Applicant to submit a supplementary and consolidated alternatives assessment.

That assessment should reconstruct the full chronology of grid discussions, land assembly and site selection and identify when the Applicant first knew that Norwich Main lacked sufficient capacity and could not be expanded. It should explain why the original Norwich Main-derived land search was retained after that defining premise had failed.

The assessment should distinguish clearly between land availability, commercial convenience, technical feasibility and environmental suitability. It should identify what inquiries were made

into alternative land, when those inquiries ceased and why land not already secured through voluntary agreement was treated as unreasonable.

The Applicant should disclose the criteria, weighting, scoring and professional judgements applied to every principal solar-site and National Grid substation alternative. The assessment should explain how environmental considerations were balanced against land control, cable length, cost, access and proximity to the already assembled sites.

Alternative land availability should be tested rather than treated as absent merely because landowners did not volunteer sufficient land or because the Applicant preferred to avoid compulsory acquisition. The Applicant should identify whether smaller or differently configured developments could have been accommodated on alternative land even where the full 1,100-hectare Scheme could not.

The supplementary assessment should examine reduced-scale, compact, phased, lower-capacity, solar-only, BESS-deferred, BESS-reduced and no-development alternatives. It should also assess whether the most environmentally harmful sites could be removed while retaining a materially smaller generating scheme.

A complete and consistently dated regional capacity assessment should be provided. That assessment should compare East Pye with the current T7 Gate 2 allocation, the transmission-specific solar figure, operational capacity, projects under construction, consented projects and the wider planning pipeline. It should distinguish clearly between transmission and distribution capacity and identify the assumed rate of project attrition.

The Applicant should state what regional shortfall, if any, would arise if East Pye were refused. It should identify which existing T7 projects are assumed not to proceed, explain the basis for that assumption and demonstrate why East Pye is required rather than another existing or less harmful project.

The alternatives assessment should also compare the environmental effects of the principal alternatives across agricultural land, ecology, landscape and visual effects, cultural heritage, hydrology and private water supplies, aviation, traffic and transport, public rights of way and cumulative infrastructure. It should assess those effects comparatively rather than simply describing constraints associated with the preferred Scheme.

The Applicant should clarify the separate connection, Gate and delivery status of the solar and BESS components and assess realistic severed implementation scenarios. Benefits attributed to the BESS should not be relied upon unless its delivery is secured.

The Applicant should provide the early desktop planning review requested by the ExA and a chronology showing when each of the six site-selection stages was undertaken relative to Norwich Main, Great Moulton and landowner engagement; contemporaneous evidence supporting the Applicant's assertion that the same Sites would have emerged had Great Moulton been the original connection point; and an explanation of how the environmental consequences of the Scheme's dispersed geography, including multiple substations and extensive interconnecting infrastructure, were taken into account when alternative configurations were compared.

Unless that exercise demonstrates both a genuine regional need for East Pye and a defensible environmental basis for selecting this particular land and connection location, no material weight should be attached to the Applicant's conclusion that the Scheme represents an appropriate alternative.

In those circumstances, the 'do nothing' alternative should be preferred and the application refused.

Chapter 6: Climate Change

6.1 Introduction

This objection is made on the basis that the environmental information presently available does not provide a lawful or robust assessment of climate change effects for a scheme of this scale, duration and complexity. Although presented as a climate change chapter, the current assessment appears to treat climate change in an unduly narrow way, focusing mainly on broad greenhouse-gas assertions while failing to provide a coherent, site-specific assessment of climate vulnerability, local climate resilience, and the extent to which the proposed development may itself worsen existing climate-related risks within the receiving environment.

A lawful climate assessment for a 60-year solar, BESS and substation scheme spread across a highly sensitive rural landscape should address both principal limbs of climate change assessment: first, the project's own greenhouse-gas implications across its full lifecycle; and second, the vulnerability of the project, the land, surrounding communities, infrastructure, water environment, agriculture and ecosystems to present and future climate conditions. On the information presently available, that integrated assessment has not been provided. Instead, key matters appear to have been deferred, fragmented across other topic areas, or left to future stages of assessment. This prevents consultees from reaching an informed view as to whether the scheme is genuinely climate-resilient, whether it would intensify local climate-related hazards, and whether its claimed climate benefits are reliable, evidence-based and capable of carrying material weight in the planning balance.

In particular, the current material does not provide a robust site-specific assessment of how the scheme would perform under more intense rainfall, prolonged wet periods, drought, heat stress, storm events, or changing groundwater and soil conditions over its operational life. Nor does it presently demonstrate, in a clear and integrated way, whether the introduction of extensive solar infrastructure, substations, cable corridors, access tracks and associated engineered works could alter runoff behaviour, exacerbate flash flooding, affect groundwater recharge, increase pressure on sensitive soils, or reduce the resilience of adjacent farmland, habitats and communities. These are not peripheral matters. In a rural landscape already subject to hydrological sensitivity, heavy soils, ecological constraints and growing cumulative development pressure, they are central to whether the scheme can properly be described as climate-resilient or environmentally sustainable.

There is also a broader structural deficiency in the way climate change has been addressed. Climate effects cannot lawfully be reduced to a headline claim that renewable energy is inherently beneficial. For a project of this scale, the climate case must be demonstrated through transparent and verifiable evidence. That requires proper assessment of whole-life carbon emissions, including construction, materials, embodied carbon, battery storage, maintenance, decommissioning, replacement cycles, and any reduction in claimed benefit arising from grid constraints, curtailment, or other real-world operational limitations. Until that information is provided in a form that can be properly tested, the asserted climate benefit of East Pye Solar cannot be treated as established.

Accordingly, this chapter is objected to in principle on the basis that the current assessment does not yet provide a coherent, site-specific or policy-reliable evaluation of climate change effects. It fails, at this stage, to demonstrate that the scheme would be resilient to climate change over its lifetime, fails to show that it would not worsen local climate-related risks, and fails to establish that its claimed carbon benefits are robust enough to outweigh the significant environmental harms identified elsewhere in this objection. The objection is therefore no longer that the climate case is merely incomplete at consultation stage, but that the final Environmental Statement has not demonstrated with sufficient transparency and robustness the magnitude of the Scheme-specific climate benefit relied upon in the planning balance.

The EIA fails to provide a robust, site-specific assessment of the scheme's resilience to climate change and the potential for the development itself to exacerbate local climate risks.

- There is no quantification or modelling of how the extensive area of solar panels may increase surface water runoff, exacerbate flash flooding, or alter groundwater recharge, particularly in light of climate projections for more intense rainfall events.
- Nor does the EIA consider whether the introduction of large-scale hard infrastructure could lead to localised overheating, changes in wind patterns, or drought vulnerability affecting adjacent farmland and communities.
- The absence of a detailed local climate risk assessment and adaptation strategy falls short of best practice and EN-1 requirements for demonstrating that both the project and surrounding communities will not be made more vulnerable as a result of the development.

A further concern is the reliability of developer-presented climate benefit calculations for large solar NSIPs. Independent scrutiny of comparable UK schemes has shown that such calculations can materially overstate greenhouse-gas savings once lifecycle impacts are properly assessed. In one recent inquiry submission examining a utility-scale solar project, independent reviewers identified mathematical errors, omitted inputs and unrealistic generation assumptions in the developer's carbon accounting. After correction, the revised lifecycle assessment indicated that the scheme could generate between **1.8 and 2.6 million tonnes more CO_2 than it would save** once embedded carbon in construction materials, battery storage systems and grid decarbonisation trajectories were properly incorporated. This example demonstrates that headline claims regarding carbon savings and 'homes powered' can be highly sensitive to underlying assumptions. In the absence of transparent, independently verifiable lifecycle carbon modelling—including manufacturing emissions, battery storage impacts, curtailment risk, and mid-life panel replacement—the climate benefits of East Pye Solar cannot be treated as established. Consequently, reliance on asserted carbon savings to outweigh significant ecological, agricultural, hydrological and heritage harms would be premature and contrary to the precautionary approach required by national planning policy.

Since this Written Representation was prepared, the National Planning Policy Framework was replaced on 17 August 2026. Policy W3 gives substantial weight to relevant energy-security and net-zero benefits and states that applicants should not generally be required to demonstrate generic need for renewable-energy development. That makes the accuracy of East Pye's Scheme-specific climate calculation more, not less, important. BEPS does not dispute the

generic climate benefit of renewable generation; it disputes the robustness and magnitude of the particular whole-life benefit claimed for East Pye.

6.2 Independent application of the Great North Road methodology

BEPS has applied the lifecycle-carbon methodology used by objectors to the Great North Road Solar Park to the figures disclosed for East Pye Solar. The exercise used the Applicant's stated lifetime generation of 36.33 TWh, its 2,000 MWh BESS, its assumption of five complete BESS replacement cycles, and the GNR methodology's year-by-year declining grid-emissions counterfactual.

Two cases were tested. A minimum evidenced 500 MWp case produced estimated whole-life emissions of approximately 1.96 million tCO_2e. An indicative 635.4 MWp case, derived from the Applicant's stated 977,536 modules at an assumed 650 W per module, produced approximately 2.16 million tCO_2e. Under the GNR declining-grid pathway, the lifetime grid emissions displaced by the Scheme were approximately 312,000 tCO_2e.

The resulting net balances were therefore approximately:

- **+1.65 million tCO_2e** in the 500 MWp case; and
- **+1.85 million tCO_2e** in the indicative 635.4 MWp case.

A positive figure in this sensitivity exercise represents net lifecycle emissions rather than a saving. The result is therefore materially different from the Applicant's claimed beneficial outcome.

The result is driven principally by two assumptions: first, that the grid counterfactual continues to decarbonise rather than remaining fixed at the Applicant's 2031 factor for the full 60-year life; and second, that the substantial embodied and replacement emissions associated with the BESS are included.

BEPS does not advance the Great North Road methodology as the uniquely correct forecast for East Pye. Its significance is as a sensitivity test. It demonstrates that the sign and magnitude of the claimed whole-life climate benefit are highly dependent upon the assumed future grid counterfactual and treatment of lifecycle emissions. On a declining-grid scenario, the Applicant's claimed benefit can materially reduce or become adverse. The Applicant's headline saving should therefore not be treated as robust unless its model is disclosed, reconciled and tested against transparent year-by-year declining-grid scenarios.

6.3 Failure to assess water vulnerability and water-resource resilience

Water vulnerability is a particularly important component of climate resilience in East Anglia and should have been assessed expressly and in detail. This is a water-stressed region, and the environmental material presently available does not demonstrate that the scheme's construction, operation and emergency-response water demands can be met in a lawful, sustainable or climate-resilient way. That omission is especially serious where the statutory and technical consultation material records that Anglian Water may not be able to supply all new non-domestic demands until new strategic supplies are developed, and advises that a

dedicated Water Resources Assessment is required in order to identify viable sources of supply and address restrictions on water availability.

The significance of this omission extends beyond ordinary utility planning. A scheme of this scale requires water not only for workforce welfare and routine maintenance, but also for dust suppression, construction processes, HDD works, cleaning, and fire safety infrastructure associated with the BESS and substations. Yet the current assessment does not identify, quantify and secure those water sources, nor does it assess how climate change, drought conditions, licence constraints, competing abstractions, or regional water scarcity may affect the reliability of supply over time. In that respect, the climate chapter fails to engage with one of the most basic questions of climate resilience: whether the development is viable in a future of increasing water stress.

This is not a minor technical omission. If mains water is unavailable or constrained, the developer would need to rely on alternative sources, each of which carries further environmental and climate implications, including abstraction pressure, additional traffic, higher carbon impacts from tankering, and intensified risks to groundwater, private water supplies and sensitive catchments. Those consequences are directly relevant both to climate adaptation and to the wider assessment of whether the scheme would increase the vulnerability of the receiving environment. In the absence of a completed Water Resources Assessment and a clear demonstration of a secure, lawful and sustainable water supply strategy, the scheme cannot properly be described as climate-resilient.

For East Pye Solar, water scarcity is not merely part of the background climate baseline; it is a central constraint on deliverability, resilience and environmental sustainability.

6.4 Failure to assess runoff, flood intensification and groundwater effects under future climate conditions

The current climate assessment also fails to address, in a coherent and site-specific way, whether the Scheme would worsen climate-related water risks within the receiving environment. That omission is particularly serious for a project of this scale in a landscape already characterised by water stress, sensitive groundwater conditions, extensive agricultural drainage, and known concerns regarding flood behaviour. Although flood risk is said to be addressed separately through a Flood Risk Assessment, that does not remove the need for the climate chapter to explain whether the development has been designed to remain resilient under future climate conditions and whether it may itself exacerbate those conditions. The PEIR records that climate change risk assessment has been scoped out of the chapter, with the explanation of resilience deferred to the Environmental Statement, and that a Flood Risk Assessment will be submitted later with the DCO application.

That approach is inadequate. The Planning Inspectorate expressly required the Environmental Statement to explain how the proposed development has been designed to be resilient to climate change risks, and also required consideration of cumulative climate vulnerability,

including changes in flood flows resulting from climate change and other development. The applicant's response is effectively to defer those matters to a future FRA and to other chapters, rather than presenting an integrated assessment now.

For East Pye Solar, the central issue is not merely whether flooding reaches individual pieces of equipment, but whether the extensive installation of panels, tracks, compounds, substations, cable corridors and associated engineered works would alter the hydrological behaviour of the land under increasingly extreme weather conditions. The available material does not presently quantify or model whether the development would increase the rate or concentration of surface water runoff, alter existing drainage pathways, reduce infiltration, affect groundwater recharge, or intensify off-site flood risk during heavier rainfall events. Nor does it explain how these risks interact with long operational duration, climate-driven rainfall volatility, and the cumulative presence of other major schemes in the area. That omission is especially striking where Anglian Water has emphasised that SuDS and rainfall runoff attenuation will be critical and has required proper assessment of water demand, supply and integrated water management.

The applicant's own climate baseline identifies a future of hotter conditions, much drier summers, and wetter winters, with average winter precipitation increasing over time under the UKCP18 scenario relied upon in the scoping material. Those projected shifts make runoff behaviour, drainage performance, soil saturation, erosion and groundwater response central climate issues for the scheme. Yet the present chapter does not translate those projections into any meaningful site-specific assessment of hydrological consequence. It therefore fails to show either that the project is climate-resilient or that it would not worsen flood and water-environment vulnerability for adjoining land, watercourses, habitats and communities.

In those circumstances, it is not sufficient for the applicant to rely on a later FRA or on general statements about embedded design and management plans. Until East Pye Solar provides a quantified and integrated assessment of runoff change, flood-flow effects, groundwater interaction and off-site consequences under future climate scenarios, the climate chapter remains structurally deficient. It does not presently establish that the development would avoid exacerbating climate-related water risks, and it cannot therefore be relied upon as a sound basis for consultation or future planning judgment.

Taken together, the absence of a secure water supply strategy and the absence of any robust assessment of runoff and groundwater effects demonstrate that water-related climate resilience has not yet been established for this scheme.

6.5 Failure to provide a reliable whole-life GHG assessment

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 require the ES to describe likely significant effects arising from 'the impact of the project on climate', including the nature and magnitude of GHG emissions and the Scheme's vulnerability to climate change. Current EN-1 goes further. Paragraph 5.3.4 requires:

‘A whole life GHG assessment showing construction, operational and decommissioning GHG impacts, including impacts from change of land use.’

It also requires the Applicant to explain how climate impacts have been driven down at each stage and to measure embodied construction emissions.

Chapter 6 purports to provide that assessment, but its result is neither complete nor independently reproducible. The headline saving does not reconcile with the Applicant’s own emissions totals; important component calculations contain apparent arithmetic or unit errors; land-use change is not quantified; and the avoided-emissions case depends upon treating the 2031 grid intensity as if it remained constant throughout the 60-year operational period.

The Applicant has therefore not established the whole-life climate benefit required by EN-1. It has presented a favourable conclusion without a reliable calculation capable of supporting it.

6.6 Failure of the headline calculation to reconcile

Chapter 6 states construction emissions of 347,673 tCO_2e, operational emissions of 1,104,918 tCO_2e and decommissioning emissions of 6,390 tCO_2e. Those figures total 1,458,981 tCO_2e. The Applicant also states that the Scheme would generate 36.33 TWh over 60 years.

Those figures produce a lifecycle carbon intensity of approximately 40.16 gCO_2e/kWh, not the reported 39.67 gCO_2e/kWh. The stated operational emissions alone produce approximately 30.41 gCO_2e/kWh, not 29.74 gCO_2e/kWh.

The claimed lifetime saving of 1,294,630 tCO_2e also cannot be reproduced. Applying the Applicant’s 65 gCO_2e/kWh comparator to 36.33 TWh produces gross avoided emissions of 2,361,450 tCO_2e. Deducting all stated lifecycle emissions leaves only 902,469 tCO_2e—approximately 392,000 tCO_2e below the claimed figure. Even deducting operational emissions alone produces 1,256,532 tCO_2e, still approximately 38,000 tCO_2e below the figure reported.

The Applicant has not disclosed a reproducible route from its own inputs to its principal claimed climate benefit. That defect goes directly to the reliability and weight of the significant-beneficial conclusion.

6.7 Material arithmetic and unit errors

The underlying calculations contain further apparent errors. Chapter 6 states that 26,393 tonnes of glass assessed at 1.4028 $kgCO_2e/kg$ produces 1,371 tCO_2e. Direct multiplication produces approximately 37,024 tCO_2e. It states that 9,973 mounting structures weighing 800 kg each, assessed at 2.71 $kgCO_2e/kg$, produce 37,845 tCO_2e. Direct multiplication produces approximately 21,621 tCO_2e. The construction-worker

transport table also appears to transpose journey-distance figures, producing a recalculated total of approximately 2,479 tCO_2e rather than 2,192 tCO_2e.

Chapter 6 further records 5,632 km of electrical cable with a total mass of only 569 tonnes, while giving principal cable-material weights of 21 kg/m for copper and 10.7 kg/m for aluminium. Those figures cannot all be correct. The BESS calculation also refers to '80% degradation per year', which is unintelligible if read literally and appears to confuse annual degradation with retained capacity.

These are not harmless drafting slips. They affect major inputs and show that the model has not been adequately checked. The complete calculation workbook, formulas, source data and quality-assurance record must be disclosed.

6.8 Static use of the 2031 grid factor

Chapter 6 acknowledges that grid emissions are forecast to decline rapidly through the 2030s. Nevertheless, its headline lifetime saving applies the 2031 grid intensity of 65 gCO_2e/kWh to the Scheme's entire 60-year generation total.

That is not a credible lifetime counterfactual. Electricity produced in 2050, 2070 or 2090 cannot rationally be assumed to displace electricity with the carbon intensity of the grid in 2031. The assessment freezes the counterfactual at the opening year most favourable to the Scheme while relying elsewhere upon rapid grid decarbonisation as the policy justification for the development.

Using the Applicant's stated generation and emissions, illustrative pathways in which the grid falls from 65 gCO_2e/kWh in 2031 to 20 g by 2050 produce a net adverse balance of approximately 447,000 tCO_2e. A pathway falling to 10 g produces a net adverse balance of approximately 747,000 tCO_2e. These figures do not prove a single definitive outcome; they demonstrate that the Applicant's beneficial conclusion is driven by its chosen baseline and is not robust.

The assessment must be rerun year by year using transparent and evidenced future grid factors.

6.9 Uncertain commencement and operational date

Chapter 6 assumes construction between 2028 and 2030 and energisation in 2031, while acknowledging that the programme depends upon final investment, detailed design and environmental constraints.

The 2031 date is not a neutral programme assumption. It determines the grid factor selected and therefore the scale of the claimed carbon saving. Any delay would move generation into a lower-carbon grid and reduce the amount of emissions said to be avoided.

The Applicant has not shown that the National Grid works, project substations, grid connection and BESS can all be delivered and energised by 2031. The climate assessment must therefore test later commencement dates. A conclusion dependent upon an unsecured opening year cannot be treated as an established benefit.

6.10 Failure to assess curtailment and useful exported electricity

Chapter 6 relies on 36.33 TWh of lifetime generation, but does not transparently reduce the claimed benefit for curtailment, network constraints or periods when East Pye generation would not displace more carbon-intensive electricity.

The relevant climate quantity is not gross theoretical generation. It is electricity actually exported, delivered and used to displace a higher-carbon counterfactual after accounting for conversion losses, transformer losses, outages, clipping, export restrictions and curtailment.

This omission is particularly serious in a region with a large solar pipeline and constrained transmission capacity. Even 10% curtailment materially worsens the recalculated balance. The Applicant must disclose gross generation, net export, technical losses, assumed curtailment and the generation source actually displaced. Until that is done, both the denominator used for carbon intensity and the claimed avoided-emissions total remain unreliable.

6.11 Failure to assess the Scheme without BESS

Chapter 6 assesses a 2,000 MWh BESS as part of the Scheme and relies qualitatively upon the additional climate and system benefits said to arise from storage. Yet the BESS has only Gate 1 status and no demonstrated Gate 2 connection capable of delivery by 2031, or at all.

The ES does not assess the realistic alternatives of solar without BESS, delayed BESS commissioning, reduced BESS capacity or BESS omission. Nor does it distinguish adequately between export-only operation and a merchant import-and-export model.

The Applicant cannot rely upon BESS-enabled flexibility when claiming climate benefits while declining to assess the Scheme if that BESS is not delivered. A no-BESS case is not optional sensitivity testing. It is necessary to understand the environmental effects of a realistically severable and presently uncertain component.

This issue has become materially more important during Examination because the solar and BESS elements do not have equivalent connection status. The solar element has progressed to Gate 2, whereas the BESS remains at Gate 1. The climate assessment should therefore test not only a hypothetical no-BESS case but the reasonable implementation scenarios which the DCO may actually permit: solar operating materially before the BESS, delayed BESS, reduced BESS and solar operating for all or a substantial part of its life without Work No. 2.

For each scenario, the Applicant should identify both the change in lifecycle emissions and the change in the benefits attributed to co-location, storage, curtailment reduction and system balancing. The climate case should not simultaneously include the embodied and replacement emissions of the BESS while assuming integrated system benefits which depend upon a connection timetable that has not been demonstrated.

6.12 The BESS dominates lifecycle emissions

Chapter 6 attributes 200,000 tCO_2e to the initial BESS and 1,034,103 tCO_2e to five replacement cycles. It accepts that BESS emissions account for approximately 85% of the total Scheme emissions and that BESS replacement accounts for about 94% of operational emissions.

The Scheme's reported climate burden is therefore dominated not by the solar arrays but by an uncertain storage component whose connection, technology, chemistry, operating regime and replacement frequency are not fixed.

The Applicant nevertheless concludes that the overall effect is significantly beneficial. That conclusion cannot be robust where its dominant emissions source is subject to unresolved deliverability and operational uncertainty and has not been tested through alternative scenarios.

6.13 Unassessed BESS charging and operational emissions

Chapter 6 states that the BESS would largely be charged from low-carbon sources but expressly admits that 'the exact nature of emissions going into charging it has not been fully assessed'. It then calculates a possible saving of approximately 957,849 tCO_2e, assumes primarily solar charging, daily discharge and 85% round-trip efficiency, and refers to significant additional mitigation potential.

That is not a completed climate assessment. A BESS charging from the wider grid may import electricity at times when gas or other higher-carbon sources are marginal. Each cycle also loses energy and requires HVAC, controls and other parasitic consumption.

The Applicant must quantify solar charging, grid charging, hourly charging intensity, round-trip losses, HVAC demand, cycling frequency, degradation, augmentation and replacement. Until those matters are assessed, the claimed BESS benefit is speculative and should carry no separate weight.

6.14 Unsupported replacement and repowering assumptions

Chapter 6 assumes full replacement of the PV panels after 40 years, additional ad hoc panel replacement, up to five BESS replacements and one transformer replacement.

Those are not routine maintenance events. Each is a substantial construction and logistics campaign involving manufacture, shipping, HGV movements, temporary compounds, workers, plant, waste removal and reinstatement. The assessment

aggregates those effects without providing a transparent programme or complete activity schedule for each replacement cycle.

The Applicant also assumes current embodied-carbon factors for future replacements while suggesting that future technology will be cleaner. It cannot rely selectively upon future improvement to minimise significance without testing both lower- and higher-emission replacement cases. Distinct replacement scenarios are required.

6.15 Failure to assess land-use change and soil carbon

EN-1 expressly requires the whole-life assessment to include impacts from land-use change. Chapter 6 identifies the existing baseline as arable, agri-environment and livestock land but then assumes that existing activities generate zero emissions.

A zero baseline is not a land-use-change assessment. It does not quantify existing soil-carbon stocks, vegetation carbon, disturbance during installation, compaction, changes in infiltration and drainage, displacement of agricultural activity, proposed sequestration under grassland, or restoration at decommissioning.

The omission is especially material where other parts of the ES identify long-term damage or downgrading to agricultural soils. The Applicant has therefore not demonstrated compliance with the express EN-1 requirement.

6.16 Omitted infrastructure and operational demand

Chapter 6 excludes fencing, portacabins, security systems and other ancillary items on the assumption that each contributes less than 1% of total emissions. It states that anything not expressly referenced may be assumed not to have been quantified.

The Scheme contains extensive fencing, CCTV, access works, drainage, compounds, fire infrastructure, welfare facilities, substations, cables and grid infrastructure. The Applicant has not demonstrated that the aggregate of all excluded items remains below the stated 5% exclusion limit.

Operational electricity for CCTV, monitoring and welfare facilities is also omitted, while BESS HVAC, pumping and other parasitic loads are not transparently quantified. A whole-life assessment cannot be completed by declaring every unlisted source negligible without showing the cumulative total of the exclusions.

6.17 Failure to include water-supply and tankering emissions

Chapter 6 identifies 16,871 m^3 of construction water and 309,196 m^3 of operational water, including panel cleaning, replacement works and fire suppression. It calculates only the emissions associated with water supply and treatment and does not identify a secured source.

If water must be tankered from another region, the HGV movements are a foreseeable Scheme emission. Approximately 326,067 m^3 would require about 10,869 loads using 30 m^3 tankers. Depending upon source distance, this could add hundreds or several thousand tonnes of CO_2e, together with further congestion and rural-road impacts.

The whole-life assessment must include abstraction, treatment, pumping, tanker loading, outward and return journeys, storage, cleaning and firewater replenishment. Until the water source is identified and those emissions are included, the claimed climate balance remains incomplete.

6.18 Unsupported downstream benefits

Chapter 6 claims that the Scheme could provide sufficient electricity for up to 546,806 electric vehicles or replace household gas consumption in 58,066 homes. It also accepts that the Scheme would not itself cause the uptake of electric vehicles.

These are theoretical equivalence illustrations, not effects demonstrated to result from East Pye. The same electricity cannot simultaneously be treated as displacing grid generation, charging the BESS, supplying electric vehicles and replacing household gas without a clear boundary preventing double counting.

Those calculations do not establish additional Scheme-specific savings and should carry no separate weight in the planning balance.

6.19 Failure to provide a secured GHG Reduction Strategy

Chapter 6 says that the GHG Reduction Strategy is dispersed through the outline CEMP and OEMP rather than provided as a consolidated document. It then concludes that no additional climate mitigation is required.

That conclusion is untenable where the calculation contains unresolved errors, the BESS dominates lifecycle emissions, water supply is unsecured and no declining-grid or curtailment assessment has been undertaken.

A secured GHG Reduction Strategy should impose stage-specific carbon budgets, embodied-carbon limits, procurement standards, reporting requirements, replacement accounting, water-transport accounting, independent audit and corrective-action triggers. Generic commitments to use lower-carbon materials or vehicles ‘where possible’ do not secure the reductions upon which the claimed beneficial effect depends.

6.20 Failure to assess cumulative climate effects

PINS expressly refused to scope cumulative climate effects out and required consideration of how other developments may affect climate vulnerability, flood flows and cumulative GHG emissions or savings.

Chapter 6 nevertheless says that project-specific cumulative GHG assessment is inappropriate because the receptor is the global atmosphere and that carbon budgets are inherently cumulative. It then states that there can be no cumulative resilience effects because the receptor is the Scheme itself.

That is a methodological avoidance of the question PINS asked. Carbon-budget contextualisation does not assess the combined regional effects of multiple solar, BESS, grid, housing and transport schemes upon construction emissions, water demand, flood flows, soil resilience, replacement traffic and constrained grid operation.

East Pye is not an isolated project. The cumulative regional climate burden must be assessed directly rather than dissolved into an abstract global receptor.

6.21 Failure to assess combined climate and ecological effects

Chapter 6 does not adequately assess how the Scheme's ecological effects would interact with hotter, drier summers, more intense rainfall, drought, flooding and increased fire risk over its 60-year life. Natural England expressly required assessment of how the development would affect the ability of habitats, species and natural processes to adapt to climate change. The Applicant has not answered that question through a receptor-specific and integrated assessment.

The relevant effect is not climate change in isolation and not habitat loss in isolation. It is the combined effect of the Scheme's land take, fragmentation, shading, lighting, fencing, disturbance, altered drainage and vegetation management upon species already exposed to worsening climatic stress.

That assessment should address, at minimum, whether the Scheme would:

- sever or narrow routes used by species moving in response to changing climate;
- reduce access to cooler, wetter or more sheltered habitat;
- isolate woodland, hedgerow, pond and watercourse populations;
- alter the moisture, temperature and light conditions of retained habitats;
- intensify drought stress on hedgerows, grassland, trees and wetlands;
- increase sediment, polluted runoff or flood disturbance during extreme rainfall;
- reduce water availability for ponds, ditches, chalk-stream-connected habitats and terrestrial species;
- increase fire risk within grassland, scrub, woodland edges and BESS-adjacent habitat;
- impair establishment or survival of mitigation planting under future drought conditions; and
- reduce the resilience of protected and notable species populations already affected by habitat fragmentation.

Chapter 6 instead states that climate effects on ecology are addressed through Chapter 8 and provides only a high-level reference to climate change affecting species and habitats. That is not an in-combination assessment. It does not identify the

ecological receptors, pathways, magnitude, duration or significance of the combined effects.

6.22 Loss of ecological connectivity under climate change

Ecological connectivity becomes more important, not less, as the climate changes. Species must be able to move between feeding, breeding, roosting, shelter and wetter or cooler refuges. East Pye's extensive footprint, fencing, internal roads, substations, BESS compounds and cable works may constrain those movements even where individual habitat features are nominally retained.

This is particularly relevant to bats, great crested newts, reptiles, invertebrates, farmland birds, aquatic species and mammals dependent upon connected hedgerows, woodland edges, ponds, ditches and watercourses. A buffer around an isolated feature is not equivalent to maintaining a functioning ecological network.

The ES should therefore assess whether the Scheme would reduce the capacity of species to respond spatially to drought, heat, flood and habitat change. Without that assessment, the Applicant cannot demonstrate that retained habitats would remain functional throughout the Scheme's life.

6.23 Climate effects on bats and other mobile species

Bats are especially sensitive to combined changes in habitat connectivity, prey availability, temperature, lighting and water. Hotter and drier summers may affect insect abundance and the availability of ponds, ditches and wet woodland feeding habitat. Increased artificial lighting and fragmentation may then restrict access to the remaining feeding areas and alternative roosting habitat.

For maternity colonies and wider metapopulations, the issue is not merely whether a roost entrance is retained. It is whether the surrounding network of commuting routes, feeding habitat, water sources and dark corridors remains sufficiently resilient under future climate conditions.

The Applicant should assess the combined effect of climate change and the Scheme on maternity-roost supporting habitat, functional connectivity and population resilience. Generic hedgerow buffers and future management plans do not answer that question.

6.24 Climate effects on ponds, ditches and aquatic ecology

The interaction between climate change, drainage and ecology requires specific assessment. Drought may reduce pond permanence, ditch flow and groundwater-supported habitat. Intense rainfall may cause rapid runoff, erosion, sediment mobilisation and polluted discharges. Solar infrastructure, access tracks and compounds may alter the timing and concentration of those flows.

These combined effects may affect great crested newts, aquatic invertebrates, fish, crayfish, amphibians and terrestrial species dependent upon wet habitats. The climate chapter should therefore integrate the future hydrological assessment with the ecological assessment rather than simply cross-referencing separate chapters.

6.25 Failure to test whether ecological mitigation is climate-resilient

Much of the Applicant's ecological case depends upon future grassland, hedgerow, tree and habitat creation. Chapter 6 does not demonstrate that those measures will establish and remain functional under the climate conditions predicted over 60 years.

The ES should assess:

- drought-related planting failure;
- increased irrigation demand;
- availability and source of irrigation water;
- tree and hedge mortality;
- altered species composition;
- reduced floral resources;
- invasive-species pressure;
- flood and erosion damage;
- fire damage; and
- the time required to replace failed habitat.

Mitigation cannot be treated as secured merely because it appears in a management plan. Its ecological function must be achievable under the future climate relied upon in the ES.

6.26 Climate change and the mitigation hierarchy

The combined ecological and climate evidence strengthens the case for avoidance. Where habitats and populations are already vulnerable to drought, heat, flooding and fragmentation, additional pressure should not be accepted on the assumption that it can later be managed.

Avoidance should include removal of development from the most sensitive ecological networks, protection of wider dark and movement corridors, avoidance of hydrologically sensitive habitat and retention of climate refuges. Compensation and biodiversity net gain cannot replace established ecological networks that species need in order to respond to climatic change.

Climate change is not merely an external risk to the Scheme. It is a force that will amplify the Scheme's effects upon habitats and species. By failing to assess those combined effects at receptor level, the Applicant has not demonstrated that East Pye would maintain ecological connectivity, population resilience or the adaptive capacity of the natural environment over its 60-year life.

6.27 Heat, BESS parasitic demand and fire risk

Chapter 6 recognises that higher summer temperatures and heatwaves will increase BESS cooling requirements, but does not quantify the resulting energy demand or lifecycle emissions. It relies only on the existence of containerised HVAC systems and concludes that the residual risk is not significant.

That is inadequate. Cooling energy is a parasitic load: it reduces net export, lowers useful displaced generation and increases operational emissions. The effect is likely to be greatest during hot, high-generation periods when battery temperatures and cooling demand are both elevated. The Applicant has not disclosed the assumed HVAC load, its annual energy consumption, its degradation over time or whether it is supplied from East Pye generation or the grid.

Heat also increases the risk of battery degradation, thermal runaway and fire. Chapter 6 identifies increased fire risk under hotter and drier conditions but relies on generic references to fire suppression and assigns a ‘Very Low’ likelihood without demonstrating the water source, suppression capacity, access arrangements, firewater containment or performance under drought conditions.

The Applicant must quantify BESS cooling and parasitic demand and integrate heat-related degradation, fire risk, suppression demand and replacement consequences into the whole-life climate assessment. Until that is done, both the net-export calculation and the climate-resilience conclusion remain incomplete.

6.28 Drought-related failure of landscape and ecological mitigation

The Scheme relies heavily on future hedgerow, tree, grassland and habitat establishment to mitigate landscape and ecological harm. Chapter 6 does not demonstrate that those measures will establish and survive under the hotter and drier summers identified in its own climate projections.

Drought may cause planting failure, tree and hedge mortality, reduced floral resources, soil cracking, erosion and increased irrigation demand. Where mitigation fails, its visual screening, habitat connectivity, biodiversity and carbon-sequestration functions also fail.

The Applicant has not identified the volume or source of water required to establish and maintain planting during prolonged drought, nor assessed the emissions and traffic consequences of tankering that water. Future management plans cannot be treated as effective mitigation unless their water requirements, replacement obligations and climate resilience are secured.

The climate assessment should therefore test planting failure, repeated replanting, increased irrigation and delayed habitat establishment. Otherwise, the Scheme relies on mitigation whose delivery is uncertain under the climate conditions it is expected to endure.

6.29 Agricultural resilience and displacement of food production

Chapter 6 treats the existing agricultural baseline as generating zero emissions and does not assess the role of the land in supporting food-production resilience under climate change.

That approach is too narrow. Climate change is expected to place increasing pressure on productive land through drought, heat, flooding, soil degradation and water scarcity. The removal of a large area of agricultural land from productive use for 60 years reduces the capacity of the local and national agricultural system to respond to those pressures.

The assessment also fails to consider displacement. Food production removed from East Pye may be transferred elsewhere, potentially to less suitable land or imported from jurisdictions with higher production, transport or land-use emissions. Those consequences are not captured by assuming a zero baseline.

The Applicant must assess the Scheme's effect on agricultural resilience, soil function and displaced production. Renewable generation does not remove the need to account for the climate consequences of taking productive land out of use.

6.30 Cumulative loss of permeable and climate-resilient land

Chapter 6 does not assess the cumulative loss or functional alteration of permeable rural land arising from East Pye and other major developments in the region.

The relevant effect is wider than the footprint of formally impermeable surfaces. Panels, compacted access tracks, substations, BESS compounds, cable works and repeated construction activity may alter infiltration, soil structure, drainage pathways and runoff concentration. Those effects reduce the capacity of the landscape to absorb and attenuate rainfall under increasingly intense storm conditions.

East Pye must also be considered with other solar, BESS, grid, housing and infrastructure schemes occupying the same regional catchments. The cumulative issue is whether a progressively engineered landscape retains sufficient capacity to store water, recharge groundwater, support soils and habitats, and reduce downstream flood risk.

Chapter 6 instead treats resilience principally as a risk to the Scheme itself. It does not assess the cumulative loss of the receiving landscape's climate-regulation function. Until that is done, the Applicant cannot demonstrate that the Scheme would not increase the vulnerability of surrounding land, watercourses, communities and ecosystems.

6.31 Climate consequences of repeated mid-life replacement works

The 60-year operational period is not a continuous low-disturbance phase. Chapter 6 assumes one complete PV-panel replacement, up to five BESS replacements, one transformer replacement and further ad hoc replacement of panels and cables.

Those activities amount to repeated construction campaigns. They will require manufacturing, shipping, HGV movements, temporary compounds, cranes and plant, workforce travel, waste handling, water, drainage controls and reinstatement. They may occur during hotter, drier or wetter climate conditions than those assessed for the initial construction phase.

The Applicant has aggregated replacement emissions but has not assessed the climate resilience or environmental consequences of each campaign. It has not shown whether replacement works can be undertaken without renewed soil compaction, habitat disturbance, drainage damage, traffic impacts or additional water demand.

The whole-life assessment must therefore treat repowering and BESS replacement as distinct project phases and assess their combined carbon, hydrological, ecological and agricultural effects. Describing them as operational maintenance understates both their scale and their climate consequences.

6.32 Consequences for the significance conclusion

Chapter 6 concludes that the operational climate effect is significant and beneficial. That conclusion is not established.

The carbon case depends upon an unreconciled headline calculation, inconsistent component data, a static 2031 grid comparator applied across 60 years, uncertain energisation, no transparent curtailment allowance, an undelivered BESS, unassessed charging and parasitic emissions, unresolved water supply, incomplete land-use accounting and speculative downstream benefits.

The resilience case is equally incomplete. Chapter 6 focuses principally on risks to the Scheme's infrastructure and workers, but does not provide a receptor-specific assessment of how East Pye would interact with hotter, drier summers, more intense rainfall, drought, flooding and increased fire risk to affect habitats, species and ecological networks over the Scheme's lifetime.

It does not demonstrate that retained habitats will remain functional under future climate conditions, that species will retain access to dark corridors, water, feeding areas and climatic refuges, or that the Scheme will avoid compounding fragmentation, hydrological stress, planting failure, fire risk and loss of ecological connectivity. Nor does it establish that proposed landscape and ecological mitigation will survive prolonged drought or repeated mid-life construction and replacement campaigns.

The evidence does not presently establish that East Pye will necessarily be carbon adverse. Nor is BEPS required to prove that proposition. The burden lies on the Applicant to demonstrate the significant climate benefit and climate resilience it asks the decision-maker to place in the planning balance.

It has not done so. The claimed significant-beneficial effect is neither transparent, reproducible nor environmentally complete. The quantified Scheme-specific climate benefit should therefore be afforded no greater weight than the robustness of the calculation presently supporting it.

6.33 Remedies sought

The Applicant should be required to disclose the complete editable GHG model, formulas, source data and quality-assurance record; correct every arithmetic and unit discrepancy; and provide a fully reconciled whole-life total.

The carbon assessment should be rerun using annual grid factors and alternative energisation dates; quantified curtailment, technical losses and net useful export; full-BESS, no-BESS, delayed-BESS and reduced-BESS scenarios; solar-only and grid-charging BESS models; complete charging, cooling and parasitic demand; full replacement and repowering emissions; all excluded infrastructure and operational demand; land-use change and soil carbon; and the full emissions consequences of the secured water source, including tankering where required.

The Applicant should also provide an integrated climate-ecology assessment identifying, for each sensitive receptor, how the Scheme would interact with future heat, drought, flood, storm and fire conditions. That assessment should address habitat connectivity, dark corridors, water-dependent habitats, maternity-roost supporting function, species movement, climatic refuges, hydrological change, planting failure, irrigation demand, invasive species, fire damage and the ecological consequences of repeated replacement works.

The Applicant should demonstrate that all landscape and ecological mitigation is deliverable and resilient under the future climate relied upon in the ES, with secured replacement, irrigation, monitoring and corrective-action obligations where establishment or function fails.

A consolidated GHG Reduction and Climate Resilience Strategy should be secured through the DCO with enforceable carbon limits, procurement standards, water and energy controls, habitat-resilience measures, monitoring, independent audit and corrective-action mechanisms.

Unless and until that work is completed and independently verified, the Examining Authority should reject the finding of a significant beneficial climate effect and attach no material weight to the claimed saving of 1,294,630 tCO_2e.

Summary:

East Pye Solar should be refused because the Applicant has not demonstrated that the Scheme delivers the significant climate benefit relied upon to justify its extensive environmental harm.

First, the whole-life carbon case is not reliable. Chapter 6 contains unreconciled headline figures, apparent arithmetic and unit errors, incomplete treatment of land-use change and excluded operational sources. The claimed saving of 1,294,630 tCO_2e cannot be reproduced from the Applicant's own totals. The asserted significant beneficial effect is therefore not founded on a transparent or auditable calculation.

Second, the result depends upon an unrealistic counterfactual. The Applicant applies the 2031 grid-emissions factor across the Scheme's entire 60-year life, despite acknowledging continuing grid decarbonisation. When East Pye is tested using a year-by-year declining-grid methodology, including the approach used by objectors to Great North Road Solar, the claimed benefit reverses and the Scheme produces a substantial net lifecycle carbon burden. That does not establish one uniquely correct figure, but it demonstrates that the Applicant's favourable conclusion is highly assumption-dependent and cannot safely be treated as an established public benefit.

Third, the climate balance is dominated by the BESS, not the solar arrays. Chapter 6 attributes approximately 85% of total Scheme emissions to the BESS and its repeated replacement. Yet the BESS remains commercially and technically uncertain, its connection is not secured, and its charging source, cycling, cooling demand, degradation and parasitic losses have not been adequately assessed. The Applicant cannot rely upon BESS-related system benefits while failing to assess realistic no-BESS, delayed-BESS and grid-charging scenarios.

Fourth, the Scheme has not been shown to be climate-resilient. Water supply is unresolved in an already water-stressed region. If water must be tankered from elsewhere, those repeated HGV movements and emissions are absent from the whole-life calculation. The assessment also fails to demonstrate that the Scheme would not worsen runoff, flood flows, soil compaction, groundwater recharge, drought stress or fire risk over its lifetime.

Fifth, Chapter 6 does not adequately assess the combined effects of the Scheme and climate change upon ecology. It does not show that bats, amphibians, aquatic species, farmland birds, invertebrates and other receptors will retain functioning habitat networks, dark corridors, water sources and climatic refuges under hotter, drier and more extreme conditions. Nor does it demonstrate that proposed planting, grassland, hedgerow and habitat mitigation will establish and survive repeated drought, flood, fire and replacement works.

Sixth, the Applicant has fragmented climate effects across separate chapters and future management plans rather than providing the integrated assessment required for a Scheme of this scale and duration. Carbon, water, ecology, agriculture, flood risk,

replacement works and cumulative regional effects are interdependent. They cannot be dismissed through generic references to future CEMP, OEMP, drainage or habitat-management measures.

The result is that the central claimed benefit of East Pye Solar is unproven, while the Scheme's environmental harms are extensive, long-term and in several respects irreversible. The Applicant has not established that the Scheme is carbon-beneficial, climate-resilient or ecologically sustainable over its 60-year life.

Until the Applicant provides a corrected, transparent and reproducible calculation, the specific figure of 1,294,630 tCO_2e and the magnitude of the claimed significant beneficial effect should be afforded limited weight. In the absence of a corrected and independently verifiable whole-life assessment, secured water and resilience strategy, and integrated assessment of ecological and cumulative climate effects, the application should be refused.

Chapter 7: Landscape and Visual

7.1 Executive Summary and Principal Objection

BEPS objects to Chapter 7 because it does not demonstrate that the East Pye Solar scheme can be accommodated within the South Norfolk landscape without substantial and enduring harm. This is not a case where the objection turns principally on disagreement with the Applicant's professional judgment. The Applicant's own LVIA identifies widespread Significant adverse effects during construction, Significant operational effects at Year 1 across most of the principal Sites, and continuing Significant effects at Year 15 in several of the most sensitive parts of the scheme. At construction, Major Significant landscape effects are identified for LCA B1 Tas Tributary Farmland, LCA E2 Great Moulton Plateau Farmland, the BESS Site, Site 1 and Site 7, with Significant effects also identified for the national character area, multiple other LCAs and most individual Sites. At Year 1, Significant landscape effects remain across the BESS, Sites 1–5 and 7–10 and several LCAs. Even after fifteen years of assumed mitigation growth, Site 1 remains Major Significant, while the BESS, Site 7, Site 8, B1 Tas Tributary Farmland and E2 Great Moulton Plateau Farmland remain significantly adversely affected.

The Applicant itself therefore establishes that East Pye would not simply add discreet energy infrastructure to an otherwise unchanged rural landscape. It would alter the character of extensive areas of countryside. Chapter 7 accepts that operation would change predominantly agricultural land into an "energy production landscape"; that solar arrays may oversail normal hedgerow boundaries; that their regular engineered form may appear conspicuous against irregular field patterns; that substations and BESS introduce industrial characteristics into relatively open rural landscapes; that fencing and CCTV increase perceived human influence; and that solar development across multiple fields can alter the sequential experience of PRoW users. The maximum tracker-panel parameter is 4.5 m at greatest inclination, with panels rotating through the day, alongside major substations, security infrastructure and other built development.

BEPS considers that Chapter 7 nevertheless systematically understates the true scale, geographical extent and duration of this harm. The LVIA divides a landscape-scale intervention into separate Sites, CRC parcels and receptor assessments, rather than adequately assessing the transformation of an interconnected historic and lived landscape. The Applicant's own baseline describes plateau farmland, wooded tributary valleys, dispersed villages and farmsteads, narrow rural roads, extensive PRoWs, important hedgerows, ancient woodland, veteran trees, dark skies and areas of appreciable tranquillity. Yet the assessment repeatedly reduces these qualities to Medium site-level sensitivity and then relies upon distance, intervening vegetation and future planting to downgrade effects.

That approach gives insufficient weight to the structure of the landscape itself. The hedgerows, tree belts, ditches, lanes and historic field pattern are not simply visual screening elements around otherwise interchangeable fields. They form the fabric of the South Norfolk clayland landscape and connect its historic, ecological, hydrological and agricultural character. Evidence submitted by local landscape archaeologist David Fine describes the surviving lattice of lanes, ditches, hedges and fields as a coherent historic landscape morphology, and warns against treating the effects of trenching, access works and landscape fragmentation as superficial disturbance capable of being repaired simply through replacement planting. BEPS adopts that underlying principle. Screening an industrial development does not preserve the landscape if the screening itself changes its openness, field pattern, historic legibility or experiential character.

The assessment is also fragmented between disciplines in ways which reduce the apparent combined effect. Heritage assets inform judgments of landscape value but are then principally assessed elsewhere; private residential effects are separated into a Residential Visual Amenity Assessment applying a much higher “overbearing” or “dominating” threshold; PRoW effects are addressed through a separate route assessment; glint and glare is removed to another chapter; and night-time landscape effects are omitted from Chapter 7 altogether. This is particularly serious in relation to lighting. The Planning Inspectorate expressly required the ES to assess effects on night-time views and landscape receptors, including intermittent motion-activated security lighting, because insufficient information had been provided to scope those effects out. The Applicant’s final response is instead to rely upon a Lighting Strategy and state that no assessment of lighting effects on landscape and visual receptors is included in Chapter 7. Mitigation principles are not a substitute for an assessment of magnitude and significance.

The visual evidence should also be treated cautiously. Chapter 7 itself recognises that winter photography is the reasonable worst case because deciduous vegetation provides substantially less screening when out of leaf. However, important photomontages have been prepared from summer photography where foliage materially obscures the development. This is especially problematic around the Grade I Church of St Catherine at Fritton, where the Applicant itself acknowledges the sensitivity of the church and Conservation Area by excluding development from part of Site 5. Summer visualisations cannot reliably demonstrate the worst-case visual relationship where screening is seasonally dependent. Equivalent leaf-off photomontages are required.

The mitigation case also requires considerably greater caution than Chapter 7 gives it. Much of the predicted reduction in effects between Year 1 and Year 15 depends upon new hedgerows, tree belts and woodland becoming sufficiently established to screen or filter the scheme. Yet the Applicant simultaneously accepts that such planting may alter the openness of views and landscape character. In some locations the LVIA expressly records Significant Year 15 visual effects because the mitigation vegetation itself alters open views. This exposes a central weakness in the assessment: replacing an open agricultural landscape with enclosed planting around industrial infrastructure

is not necessarily mitigation of landscape harm; in some landscapes it is itself part of the change.

Independent professional landscape and visual impact assessments have also been commissioned on behalf of the South Norfolk community. Those assessments will be submitted separately by Hempnall Parish Council and Shotesham Parish Council. Although submitted through two Parish Councils, together they examine the East Pye scheme across its full geographical extent. BEPS supports their findings. To avoid duplication, their detailed professional analysis is not reproduced in this Written Representation and should be read alongside it as complementary independent evidence.

BEPS therefore submits that the Applicant's conclusions should not be treated as a conservative or precautionary statement of harm. They already disclose extensive and, in places, major adverse effects; the methodological weaknesses identified above are capable only of understating that harm further. The ExA should approach Chapter 7 on the basis that East Pye represents a landscape-scale industrialisation of an interconnected rural environment, not a collection of visually containable solar fields. The Applicant has not demonstrated that the scheme's scale, siting or residual effects are acceptable, nor that future screening can remedy the underlying loss of openness, tranquillity, historic landscape structure and rural visual character.

7.2 Policy and Assessment Framework

The relevant policy framework requires landscape harm to be avoided and minimised through siting, design and retention of existing landscape structure, not simply screened after the development has been fixed. Chapter 7 itself identifies EN-1, EN-3 and EN-5 as the principal national policy framework and relies on GLVIA3 and related Landscape Institute guidance. It also identifies the Greater Norwich Local Plan and South Norfolk policies concerned with environmental quality, local distinctiveness, design, amenity, landscape character, trees and hedgerows, landscape integration and heritage.

The Applicant expressly cites EN-3 paragraphs 2.10.92–2.10.93, which require consideration of how existing boundary vegetation, mature trees and hedgerows can be protected and retained and, where necessary, how schemes can be redesigned to avoid harm. The same underlying principle runs through the local policy framework: development should respond to landscape character and local distinctiveness, protect natural assets, incorporate landscape into design and avoid harm to amenity and heritage.

This matters because Chapter 7 too often treats mitigation as a later screening exercise. The relevant policy test is not whether planting can eventually obscure infrastructure from selected views, but whether the location, scale and design of the development avoid or minimise unacceptable landscape harm in the first place.

The South Norfolk Landscape Susceptibility in relation to Energy Generation, Storage and Transmission SPD is also relevant evidence. The Applicant says it is “not directly applicable” to the Scheme because it was not prepared specifically for NSIPs, but simultaneously confirms that it reviewed the SPD and incorporated updates into its own judgments on landscape sensitivity where appropriate. That is effectively an acknowledgment that the SPD is material evidence of local landscape susceptibility, even if it is not determinative of the DCO decision.

The policy framework therefore supports a simple proposition: where the scale and siting of development create enduring significant landscape effects, future planting cannot be treated as a substitute for an appropriate location and design.

Since this Written Representation was prepared, the National Planning Policy Framework was replaced on 17 August 2026. The Energy NPSs remain the primary policy framework for this NSIP, but the current NPPF materially reinforces the landscape and design issues raised here. Policy DP3 requires development to respond to the history, character and features of its site and setting and to integrate with its surroundings, while DP4 requires design quality to be maintained through project evolution, assessment and delivery. Those principles are particularly relevant where the Applicant relies heavily upon post-consent detailed design and landscape mitigation to integrate extensive infrastructure into a sensitive rural setting.

7.3 The Applicant’s Own Assessment Establishes Extensive Significant Harm

7.3.1 Construction

The scale of landscape harm is established by the Applicant’s own assessment. During construction, Chapter 7 identifies Major Significant effects on LCA B1 Tas Tributary Farmland, LCA E2 Great Moulton Plateau Farmland, the BESS Site, Site 1 and Site 7. High-sensitivity Site 8 is also assessed as Major Significant. Moderate Significant effects are identified across Sites 2, 3, 4, 5, 9 and 10, as well as NCA 83 South Norfolk and High Suffolk Claylands, A1 Tas Rural River Valley, B5 Chet Tributary Farmland, C2 Thurlton Tributary Farmland with Parkland and the Via Beata.

The Applicant itself explains that these effects arise because construction would introduce activity “totally uncharacteristic” of the receiving landscapes, including haul routes, compounds, plant, vehicle movements, temporary lighting, fencing, trenching, stockpiles, vegetation removal and PRoW closures. This is not localised or incidental harm. It is widespread across the scheme and affects both ordinary countryside and landscapes the Applicant itself judges to be highly sensitive.

That evidence is difficult to reconcile with any general claim that East Pye can simply be integrated into its surroundings.

7.3.2 Operation — Year 1

The harm does not fall away when construction ends. At Year 1, Significant landscape effects remain across B1 Tas Tributary Farmland, C2 Thurlton Tributary Farmland with Parkland and E2 Great Moulton Plateau Farmland, together with the BESS, Site 1 and Sites 2, 3, 4, 5, 7, 8, 9 and 10.

The Applicant expressly accepts that the BESS and Site 1 would experience a “total change” to key landscape characteristics. That admission is central. It confirms that these are not landscapes experiencing merely filtered or partial visual intrusion. The development changes their character in substance.

The Year 1 effects arise from the presence of the energy infrastructure itself: 4.5 m solar arrays, substations, BESS, fencing, CCTV, access tracks and grid infrastructure replacing or dominating the existing agricultural landscape. Chapter 7 acknowledges that the scheme changes the land into an “energy production landscape” and that the solar arrays increase perceived human influence, affect tranquillity and introduce conspicuous regular forms into irregular rural field patterns.

7.3.3 Operation — Year 15

The Year 15 assessment should not be presented as evidence that mitigation resolves the landscape conflict. Even after fifteen years of assumed establishment and growth, Chapter 7 still identifies Major Significant landscape effects at Site 1 and Moderate Significant effects at the BESS, Site 7, Site 8, B1 Tas Tributary Farmland and E2 Great Moulton Plateau Farmland.

Significant visual effects also remain at individual receptors at the BESS, Site 1, Site 3, Site 4, Site 7, Site 8, Site 9 and along the CRC. The Applicant therefore does not demonstrate that mitigation removes the harm. It demonstrates only that some effects reduce over time while significant adverse effects persist in key parts of the scheme.

The conclusion is straightforward: even on the Applicant’s mature-mitigation case, important parts of East Pye remain significantly harmed after fifteen years.

7.4 The Landscape Has Been Assessed as Separate Development Parcels Rather Than as a Coherent Landscape

Chapter 7 recognises that the receiving environment is a predominantly rural landscape of open plateau farmland, small wooded valleys, hedgerows, woodland, dispersed villages and farmsteads, local roads, PRoWs, long-distance routes and areas of tranquillity. It nevertheless subdivides that landscape into Sites 1–10 and CRC parcels for assessment and then evaluates each largely as a separate receptor. That approach risks missing the central effect of East Pye: the transformation of an interconnected landscape system across a very large area.

The South Norfolk clayland landscape is not simply a collection of fields separated by vegetation. Its structure is formed by long-established lanes, ditches and watercourses, hedgerows, mature and veteran trees, historic field boundaries, tributary valleys, settlement patterns and routes of movement. These features perform several functions at once. They shape visual character, agricultural use, drainage, ecological connectivity, historic legibility and the everyday experience of the countryside.

The independent landscape morphology evidence submitted by David Fine is important in this respect. It describes the surviving lattice of lanes, ditches, hedges and fields as a coherent historic structure rather than incidental boundary vegetation, and argues that this pattern has evolved over a very long period as part of the functioning landscape. That evidence accords with the Applicant's own baseline descriptions of a landscape structured by field boundaries, hedgerows, wooded horizons, dispersed settlement and tributary valleys.

This exposes a weakness in the LVIA. Chapter 7 is strong on what may be seen from individual receptors, but much weaker on what is being altered as a landscape system. Hedgerows, ditches, lanes and tree belts are repeatedly treated as screening features to be retained, reinforced or replanted. They are more than that. They are part of the landscape fabric itself.

That distinction is important because mitigation cannot be judged only by whether it hides infrastructure. If access works, cable trenches, hedgerow removals, new tree belts, substations and panel fields alter the historic field pattern, openness, lane structure and ecological or hydrological relationships of the land, the landscape has changed even where the development later becomes less visible. Chapter 7 does not adequately capture that deeper structural effect.

7.5 Underassessment of Historic Landscape Character and Artificial Separation from Heritage

Chapter 7 acknowledges that heritage assets contribute to landscape value, but then largely removes them from the LVIA as receptors in their own right because they are assessed in Chapter 10. The Applicant expressly states that conservation areas, registered parks and gardens and listed buildings inform the landscape baseline and sensitivity judgments, while substantive heritage effects are considered elsewhere.

BEPS considers that division artificial. Churches, conservation areas, halls, farmsteads, historic lanes and settlement edges are not merely heritage designations sitting within the landscape; they are part of the landscape's character, time-depth and visual structure. Their settings are experienced through the same lanes, fields, hedgerows, views, PRoWs and settlement approaches which Chapter 7 assesses. Separating "heritage" from "landscape" therefore risks understating the combined effect of changing both the setting of historic places and the rural landscape through which those places are understood.

The Applicant's own evidence demonstrates that the distinction does not work cleanly in practice. Appendix 7.4 repeatedly relies on churches, listed buildings, conservation areas and settlement edges when explaining the sensitivity of visual receptors. At Site 4, the baseline includes views around St Michael's Church and St Mary's, Tharston; at Site 5 it recognises the sensitivity of the Fritton Conservation Area and Grade I Church of St Catherine; at Site 7 it records the relationship with Saxlingham Nethergate and its conservation area; and at Site 10 the wider context includes historic parkland and listed-building groups.

The same issue arises at Wacton, where the visual and landscape context includes the conservation area, historic settlement edge and listed buildings around the scheme. These are not isolated heritage receptors whose effects can be understood independently of the surrounding countryside. Their significance is partly derived from how they sit within, and are approached through, the rural landscape.

Ditchingham Hall is particularly illustrative. Appendix 7.2 records the Registered Park and Garden approximately 2 km from Site 10 but excludes it from further landscape assessment on the basis of separation distance and claimed lack of intervisibility. Yet the same appendix identifies C2 Thurlton Tributary Farmland with Parkland as a High-sensitivity landscape characterised by large estates, halls and distinctive parkland landscapes and valued in part because of its relationship with the Broads. The parkland context is therefore integral to landscape character even where a particular registered asset is removed from the receptor assessment.

BEPS does not seek to duplicate Chapter 10. The objection is narrower and more fundamental: Chapter 7 should assess historic landscape character as an integrated resource. A church tower, conservation area edge, hall, farmstead or historic lane does not cease to be part of the landscape merely because its designated heritage significance is considered elsewhere. The present compartmentalisation tends to suppress the combined effect of industrialising the landscape while simultaneously altering the settings through which historic places are experienced.

7.6 Landscape Sensitivity Has Been Systematically Understated

Appendix 7.2 repeatedly describes a landscape of greater sensitivity than the final site-level ratings suggest. It identifies expansive skies, open plateau farmland, tranquil tributary valleys, dark skies, ancient woodland, veteran trees, high-value recreational routes, historic settlement structure, wooded horizons and locally distinctive parkland and river-valley landscapes. Yet almost every principal Site is assigned only Medium sensitivity, with Site 8 the principal exception.

That pattern matters because sensitivity directly controls the significance conclusions that follow. Where the narrative baseline describes intact rural character, tranquillity, openness and historic structure but the receptor is then rated only Medium, the assessment effectively lowers the starting point before magnitude is considered.

7.6.1 Great Moulton Plateau, Site 1 and the BESS

E2 Great Moulton Plateau Farmland is described as a flat elevated plateau with extensive arable farmland, a notable absence of boundaries, a strong sense of openness and exposure, expansive skies and distant views. Hedgerow trees remain important markers of former field boundaries, and disused airfields are identified as a characteristic feature. Despite those characteristics, E2 is rated only Medium sensitivity.

Site 1 and the BESS are treated similarly. The BESS sits within an open, exposed plateau landscape and is described as moderately tranquil and relatively dim at night. Site 1 is likewise open, elevated and defined by expansive skies, with a high level of recreational value arising from the PRoW network and with Great Moulton close to its northern edge. Both are nevertheless assigned only Medium sensitivity.

The resulting judgments are difficult to reconcile with the Applicant's later admission that Site 1 and the BESS undergo a "total change" to key landscape characteristics at Year 1. If a landscape is sufficiently open and exposed that the proposed development causes a total change to its defining characteristics, the assumption that it has only moderate susceptibility to that development requires particularly strong justification.

7.6.2 Site 7

Site 7 is another clear example. Appendix 7.2 records a landscape structured by established hedgerows, tree belts, woodland blocks and ancient woodland, with wooded horizons that create intimacy and visual interest. It records a dense PRoW network, proximity to the Boudicca Way, numerous veteran trees, and moderate to high tranquillity. Most of the Site lies in either transitional dark-sky conditions or the darkest night-sky range.

Despite that combination of landscape structure, recreational value, tranquillity, ecological interest and dark-sky character, Site 7 is assigned only Medium value, Medium susceptibility and Medium sensitivity. Yet Chapter 7 later identifies Major Significant construction effects and continuing Significant landscape effects at Year 15. The outcome itself demonstrates how limited the landscape's capacity to absorb the scheme actually is.

7.6.3 Site 10

The inconsistency is particularly stark at Site 10. Sub-Sites 10A–10D lie within or straddle C2 Thurlton Tributary Farmland with Parkland, which the Applicant rates High value, High susceptibility and High sensitivity. C2 is characterised by open views towards the Broads, parkland, halls, ancient woodland, remoteness and peacefulness. B5 Chet Tributary Farmland, within which Site 10E lies and other Site 10 parcels partly extend, is also rated High sensitivity.

Yet Site 10 and CRC14 are reduced to Medium sensitivity. The site-specific baseline still describes Site 10 as highly tranquil, sparsely settled and structured by hedgerows, tree belts and plantation woodland. The reduction in sensitivity therefore appears to arise not because those qualities disappear at Site 10, but because the assessment moves from the wider character area to the land selected for development.

That pattern should concern the ExA. Across several parts of the scheme, sensitivity becomes lower as the assessment moves closer to the actual development footprint. BEPS submits that the Applicant has not adequately justified those downward judgments and that the effect is to suppress the significance of landscape harm at source.

7.7 Site 1, BESS and Great Moulton: the Scheme's Most Serious Landscape Conflict

The Applicant's own evidence establishes Site 1, the BESS and the surrounding Great Moulton Plateau as the clearest landscape conflict within the scheme.

At Site 1, Chapter 7 identifies Major Significant landscape effects during construction, Major Significant effects at Year 1 and Major Significant effects still remaining at Year 15. The Applicant expressly states that the scheme results in a "total change" to some of the key characteristics of Site 1. At Year 15, despite mature mitigation, Site 1 remains Major Significant because of the scale of the infrastructure and the continuing alteration of its key characteristics.

The visual effects are equally serious. At Year 1 the viewpoint south-east of Great Moulton remains Major to Substantial and Significant, while the PRoW at Great Moulton FP15/RB18 is Major and Significant. At Year 15, significant effects remain from Great Moulton and nearby PRoWs because the National Grid Substation and Project Substation continue to influence the view despite mitigation planting.

The BESS follows the same pattern. It is assessed as Major Significant during construction and Major Significant at Year 1, reducing only to Moderate Significant at Year 15. A high-sensitivity residential receptor at Station Road continues to experience a Significant visual effect at Year 15 because the screening vegetation itself changes the open character of the view.

These effects arise in a landscape whose defining characteristics are openness, exposure, expansive sky and distant views. Appendix 7.2 describes E2 Great Moulton Plateau Farmland precisely in those terms. That makes extensive woodland screening a particularly problematic mitigation response. Screening a major substation, BESS and associated infrastructure behind new woodland does not preserve an open plateau landscape. It substitutes a more enclosed landscape for the existing open one in order to obscure industrial development.

The Applicant itself effectively recognises this problem. Chapter 7 acknowledges that mitigation planting may alter the open visual character of views and, in some cases,

that this effect remains Significant at Year 15. The Great Moulton area therefore demonstrates the central weakness in the mitigation case: the scheme is too large and too visually dominant to be assimilated without materially changing the character of the landscape used to screen it.

BEPS submits that Site 1 and the BESS should be treated as a fundamental siting and scale problem, not merely a planting problem.

ISH1 has since confirmed that important elements of the Site 1 infrastructure remain subject to further design, including the detailed form of project substations, AIS/GIS choice, ancillary electrical units and the National Grid substation. The ExA has also required further illustrative material and clarification of the correct height parameters. That uncertainty matters to the LVIA because the reasonable worst-case landscape assessment must reflect the combined form, massing and visibility of the 13-metre project-substation infrastructure together with the separate National Grid substation capable of reaching 15 metres, rather than assuming one preferred detailed design.

7.8 The Scale and Industrial Character of the Solar Arrays Are Understated

Chapter 7 understates the nature of the development when it treats the solar elements as comparatively low-profile infrastructure capable of ready assimilation. The assessed worst-case is single-axis tracker panels up to 4.5 m high. These are not static, ground-hugging features. They are substantial, repetitive engineered structures occupying extensive areas of open farmland.

The Applicant's own assessment identifies the characteristics that create landscape harm. It acknowledges that solar panels may be visible in open landscapes and on slopes, may appear blue or grey depending on conditions, may oversail typical hedgerow boundaries and may present regular engineered edges that appear conspicuous within irregular rural landscapes. It further accepts that panels can increase perceived human influence, affect tranquillity, and that development across multiple fields can alter the sequential experience of PRoW users. Fencing and CCTV are separately acknowledged as additional urbanising influences.

These admissions matter because the effect is more fundamental than "visual intrusion". Open agricultural fields become engineered power-generation compounds. Hedgerows cease simply to define fields and become the boundaries of securitised infrastructure. Rural lanes become construction and operational access routes. Views formerly composed of crop, hedge and expansive sky acquire repeated rows of moving industrial equipment, fencing, CCTV and substations. Chapter 7 itself describes the operational change as one from an agricultural landscape to an "energy production landscape".

The tilting nature of the arrays adds a further dimension. Their height, profile and reflected appearance change through the day as the tracking system moves. The landscape effect is therefore not simply that of inserting a fixed 4.5 m structure into a

field. It is the introduction of an ordered and mechanically expressive built form across large areas of countryside.

BEPS submits that the scale of East Pye should therefore be understood as industrialisation of the landscape rather than merely the visibility of individual panels. That distinction should inform judgments on magnitude, tranquillity, openness and cumulative change.

7.9 Inadequate Study Area and Overreliance on Distance

The final LVIA adopts a variable study area of 3 km around the National Grid Substation, grid connection infrastructure and 400 kV Project Substations, 2 km around the BESS and Sites 1–10, and only 1 km around the Cable Route Corridor. The Applicant says these distances reflect professional experience and the area in which significant effects are considered likely.

The issue is not that every view beyond those distances must be significant. It is that the assessment framework risks excluding receptors before their actual relationship with this unusually dispersed scheme has been properly examined.

That concern was expressly raised at scoping. The Inspectorate noted that the Applicant's earlier position was that significant visual effects were unlikely beyond 2 km, while the ZTVs showed panels visible beyond that distance. PINS therefore required the ES to assess potential effects within the ZTV wherever significant effects might arise and to justify the study area by reference to fieldwork, modelling and recognised professional guidance.

The final ES still relies heavily on distance as a reason for diminishing or excluding effects. Chapter 7 concludes that solar and 132 kV infrastructure are generally limited beyond 2 km, although it expressly acknowledges more distant visibility for the National Grid Substation, overhead line realignment and 400 kV substations. Appendix 7.4 confirms why caution is required: several parts of the scheme occupy open, elevated landscapes with expansive skies and long-distance views, and the Site 1 grid infrastructure has potential visibility towards the wider Tibenham area and airfield.

Distance alone does not remove landscape influence where development is large, elevated, skyline-forming or repeatedly encountered. Nor does it address cumulative experience. A receptor may see different parts of East Pye sequentially from different locations even where no single component dominates one fixed viewpoint. That is particularly relevant to the open plateau landscapes, the wider PRoW network and rural roads.

The CRC study area raises a related concern. A 1 km envelope may be proportionate to isolated underground works, but the cable route is not experienced solely as a buried final product. Construction involves trenching, vegetation removal, hedgerow crossings, stockpiles, vehicle activity and interactions with lanes and PRoWs over a large geographical area. Where those works combine visually or experientially with

nearby Sites, their effect cannot safely be treated as an isolated short-range disturbance.

BEPS therefore does not contend that the study-area distances are automatically invalid. The objection is that they have been used too readily as a proxy for insignificance in a scheme whose own ZTVs, open landscape character and tall infrastructure demonstrate a wider visual envelope. The ExA should give particular scrutiny to distant skyline effects, cumulative visibility and sequential experience rather than assuming that effects become immaterial simply because a receptor lies beyond the principal study-area boundary.

7.10 Visualisations Do Not Adequately Represent the Worst-Case Seasonal Effect

Chapter 7 expressly recognises that winter conditions represent the visual worst case because deciduous vegetation is out of leaf and therefore provides less screening. It states that both summer and winter baseline photography was taken and that the winter view is representative of the reasonable worst-case scenario.

That principle is not consistently carried through into the photomontage evidence. Where visualisations are prepared from summer photography, the scheme is shown when hedgerows, tree belts and woodland are at their maximum screening effectiveness. That matters because the Applicant's assessment repeatedly relies upon those same features to contain visibility and reduce visual effects. A summer visualisation may therefore show the development in materially more favourable conditions than those experienced for a substantial part of the year.

The issue is particularly acute around the Grade I Church of St Catherine and Fritton Conservation Area. The Applicant itself recognises this as a sensitive location and has excluded solar development from the eastern part of Site 5 because of the proximity of residential properties along The Street, St Catherine's Church and the Conservation Area. Where deciduous vegetation contributes materially to screening in these views, a summer photomontage does not demonstrate the worst-case relationship between the church, its rural setting and the development.

The existence of separate winter baseline photographs does not resolve that deficiency. A baseline photograph shows the existing landscape; a photomontage is intended to show the development within it. The relevant question is therefore what the scheme itself would look like under leaf-off conditions. A summer photomontage cannot answer that question by reference to a different winter photograph elsewhere in the appendix.

The same concern applies at settlement edges, along sensitive PRoWs, around Site 1 and the BESS, and at heritage-sensitive viewpoints where the assessment depends materially on deciduous screening. BEPS therefore considers that the visual evidence is incomplete unless equivalent winter leaf-off photomontages or verified photowires are provided for those locations. Without them, the Examination does not have a

consistent worst-case visual record on which to test the Applicant's significance judgments.

7.11 Night-Time Character, Dark Skies and Tranquillity Have Not Been Properly Assessed

The treatment of lighting is one of the clearest deficiencies in Chapter 7. At scoping, the Planning Inspectorate expressly rejected the proposal to scope out night-time lighting effects and required the ES to assess effects on landscape and visual receptors, including intermittent sources such as motion-activated security lighting. The Applicant's final response is nevertheless that, because a Lighting Strategy has been produced and lighting controls are secured through management plans, "no assessment of the effects of lighting on landscape and visual receptors is included in this Chapter."

That does not answer the Inspectorate's requirement. A lighting strategy identifies controls; it does not determine the magnitude or significance of the environmental effects those controls are intended to mitigate.

Appendix 7.11 confirms that this is a genuinely dark rural receiving environment. The Order Limits are treated as E2 "Rural", with low ambient brightness, and some parts of the scheme fall within the darkest night-sky areas or transitional dark-sky zones. It also confirms operational lighting at the National Grid Substation, BESS and Project Substations, including motion-sensing security and maintenance lighting. The BESS perimeter is to be illuminated by column-mounted luminaires, while temporary construction lighting may be required at compounds, laydown areas, parking and welfare facilities, security locations, vehicle areas and specialist works such as HDD operations.

The same strategy identifies residential receptors, roads, Tibenham Airfield and pilots, ecological receptors, conservation areas and the dark-sky environment as potentially affected receptors. Chapter 7 itself acknowledges that tranquillity increases away from the principal roads and that substantial parts of the Order Limits lie within relatively tranquil rural countryside.

The omission therefore matters. The ES does not establish what magnitude of night-time landscape change would arise from introducing lit compounds into dark countryside; whether those changes are significant; how multiple sources would operate cumulatively; how intermittent activation would affect perceptions of darkness and tranquillity; or how winter conditions, when hours of darkness are longest, affect residential, recreational and landscape receptors. Motion-activated lighting may be limited in duration, but its sudden appearance in a dark rural landscape may itself be conspicuous.

This is also a cross-cutting omission. Lighting interacts with nocturnal ecology and with aviation receptors, both of which are addressed elsewhere in BEPS's evidence. The landscape issue is distinct: the Applicant has not assessed the change from an

intrinsically dark rural nightscape to one containing periodically or permanently illuminated industrial compounds.

BEPS submits that the Applicant has confused mitigation with assessment. The Lighting Strategy may reduce effects, but Chapter 7 still needs to establish what those effects are and whether the residual effects are significant.

The Examination has since made the lighting issue more concrete. ISH1 and ExQ1 require further information on the nature, location and control of construction and operational lighting. That is material because the original scoping position proposed to scope lighting effects out on the basis that operational lighting would be limited and motion-sensitive and that construction lighting would be controlled by later management plans. The final assessment must therefore demonstrate, rather than assume, that the permitted lighting envelope will not materially alter rural night-time character, tranquillity, residential amenity or ecological darkness. The Applicant should identify the locations, duration, trigger conditions and limits applying to lighting relied upon in that conclusion.

7.12 Tranquillity Is Treated as a Descriptor Rather Than a Receptor of Harm

Tranquillity is repeatedly identified in the Applicant's own baseline as a characteristic of the receiving landscape. Appendix 7.2 records moderate, high or appreciable tranquillity across several Sites, while Figure 7.8 shows substantial parts of the scheme within comparatively tranquil countryside. Chapter 7 itself accepts that construction will affect the "perception of tranquillity and remoteness across the rural landscape".

Yet tranquillity is largely used as one factor within broader landscape sensitivity and magnitude judgments rather than being examined as a substantive experiential effect in its own right. That risks understating what East Pye changes. Tranquillity is not simply an absence of noise. It derives from the combined experience of rural openness, limited built development, dark skies, quiet lanes, sparse traffic, natural and agricultural land cover and the absence of repeated industrial infrastructure.

The scheme affects each of those components. Construction introduces compounds, HGVs, plant, haul routes, temporary lighting, fencing and PRoW closures. Operation introduces extensive tracker arrays, substations, BESS infrastructure, access tracks, security fencing, CCTV and lighting. Maintenance and equipment replacement reintroduce activity during the 60-year operational period. None of these effects is adequately captured by treating tranquillity merely as a baseline adjective.

The mitigation case also creates a paradox. New hedgerows, tree belts and woodland may screen infrastructure from some views, but in doing so may replace open rural outlooks with enclosed vegetated corridors. Chapter 7 itself acknowledges at some Year 15 receptors that mitigation planting changes the open character of the view. A landscape does not necessarily become more tranquil because the industrial infrastructure within it becomes harder to see.

BEPS therefore submits that tranquillity should be treated as a material experiential quality affected by visual industrialisation, lighting, access infrastructure, traffic, fencing and repeated encounters with energy development, not merely as a descriptor folded into other judgments.

7.13 Public Rights of Way and Sequential Landscape Experience Are Underassessed

The PRoW evidence confirms that the scheme would materially affect how the landscape is experienced on foot and on horseback. Chapter 7 records extensive Significant effects on PRoW users during construction and operation, including routes crossing or immediately adjoining the BESS, Sites 1–10 and the Cable Route Corridor. At Year 1, Significant effects remain across numerous routes at the BESS, Sites 1–5 and 7–10. Even at Year 15, significant visual effects remain at routes associated with Site 1, Site 3, Site 4, Site 7, Site 8, Site 9 and the CRC.

The more detailed PRoW assessment identifies continuing Year 15 effects on routes including Great Moulton FP13 and FP14, Great Moulton RB19, Morningthorpe FP5, Hempnall FP2 and Saxlingham Nethergate FP12, while the Boudicca Way and Via Beata are themselves treated as high-sensitivity recreational routes. The Applicant's own baseline also repeatedly describes these routes as rural, tranquil and integral to the experience of the surrounding countryside.

The weakness is methodological as well as quantitative. The separate PRoW assessment is principally focused on routes physically interacting with the scheme, while the broader LVIA represents other route users through selected viewpoints. That is insufficient for a development of this scale. Walking, riding and cycling are sequential experiences: the receptor moves through the landscape, encountering successive fields, lanes, hedgerows, settlement edges and views. A route cannot be fully understood through a single representative photograph.

This matters particularly where the scheme is dispersed. A walker may leave one field of 4.5 m tracker arrays, encounter fencing and CCTV, pass mitigation planting, approach another solar parcel, then experience a substation or construction access further along the route. Each individual view may be rated separately, but the cumulative experiential effect is a repeated encounter with industrial infrastructure over a journey which is presently rural.

The Applicant itself acknowledges that solar development across multiple fields can affect "the experience of PRoW and sequential views when moving through a landscape". BEPS considers that admission important. The assessment identifies the issue but does not adequately translate it into the significance judgments.

The harm is therefore not limited to temporary closures or individual views. East Pye changes the character of movement through the countryside. That should be given separate weight in the examination, particularly where high-sensitivity recreational

routes and locally important PRoWs pass through landscapes that the Applicant itself describes as tranquil and rural.

ExQ1 now reinforces this objection by requiring the Applicant to consider the experience of PRoW users across routes and circular journeys rather than only at isolated viewpoints or crossing points. That is important because the landscape effect of East Pye on recreational receptors is sequential: users may experience repeated enclosure, fencing, infrastructure, planting, construction traffic and altered views across substantial lengths of connected routes. The assessment should therefore address the cumulative experiential effect along the route network, not merely the significance assigned to individual viewpoints.

7.14 Residential Visual Harm Is Materially Understated

Appendix 7.8 identifies 20 residential properties within 100 m of the scheme's maximum development parameters. The initial study area was 500 m, but the Applicant undertook individual Steps 2 and 3 assessment only for properties within 100 m and, because only two of those properties were taken forward to Step 4, carried out no further initial assessment of properties beyond that 100 m offset.

That narrowing requires scrutiny. The scheme includes solar arrays and BESS up to 4.5 m high, 132 kV substations up to 7 m, 400 kV substations up to 13 m and the National Grid Substation up to 15 m. A conclusion that properties beyond 100 m need no individual initial assessment should not be assumed simply because relatively few closer properties reached the very high Residential Visual Amenity Threshold.

The two properties taken forward demonstrate the distinction. At 22 Hillcrest Court, the Applicant identifies Major to Substantial Adverse and Significant effects for the first and second floors at Year 1 and Moderate Adverse, still Significant effects at Year 15. At Oakdene Cottage in Woodton, adjacent to Site 7L, first-floor residents are assessed as experiencing Major Adverse and Significant effects at Year 1.

Neither property is found to cross the Residential Visual Amenity Threshold because the Applicant considers the scheme would not become sufficiently overwhelming, dominating or overbearing. That finding should not be confused with an absence of serious residential harm. The RVAA itself correctly distinguishes between EIA significance and the much higher threshold at which visual conditions become so oppressive that residential amenity may make the development unacceptable in the public interest.

The important point is therefore not that the Applicant has applied the wrong threshold, but that acknowledged Major and Major-to-Substantial Significant effects remain material even where that threshold is not crossed. At Hillcrest Court, the Applicant accepts that the scheme would substantially alter views from west-facing upper-floor windows and that a Significant effect remains at Year 15.

The RVAA also depends heavily on existing and proposed vegetation. Numerous properties are screened out of further assessment because hedgerows, trees or buildings are expected to restrict views, often with explicit reference to summer or winter filtering. That makes the reliability, permanence and seasonal effectiveness of the vegetated framework central to the residential conclusions.

BEPS therefore submits that the absence of a formal RVAA threshold exceedance should not be used to minimise residential visual harm. The Applicant's own evidence establishes significant adverse effects on residents, and the decision not to examine properties between 100 m and 500 m individually deserves further justification.

7.15 Trees, Hedgerows and Woodland: the Existing Landscape Framework Is Itself Under Pressure

The Applicant relies heavily on existing hedgerows, trees and woodland to support the landscape and visual case. They define field pattern, contain views and provide the existing screening which allows numerous effects to be reduced. New hedgerow and woodland planting then forms the principal mechanism by which effects are predicted to diminish between Year 1 and Year 15. Chapter 7 describes successful establishment and long-term management of that vegetation as a primary means of filtering and screening views towards the scheme.

The Preliminary Arboricultural Impact Assessment demonstrates why that assumption requires caution. It identifies 737 potentially affected tree features: 518 individual trees, 126 groups, 74 hedgerows and 19 woodlands. Of these, 139 are Category A and 389 Category B. Six areas of ancient woodland abut the Order Limits, and the survey and Ancient Tree Inventory evidence identify a substantial resource of ancient and veteran trees within or immediately adjacent to the scheme.

The same assessment identifies direct and indirect conflicts. Five individual trees are currently identified for full removal, six tree groups and 32 hedgerows for partial removal, with further works within root protection areas and facilitation pruning. It also records conflicts between proposed works or access arrangements and buffers associated with ancient or veteran trees and ancient woodland. Several of those conflicts are to be resolved only at detailed design through relocation of accesses, reduced working widths or specialist construction methods.

That creates a circularity in the LVIA. Chapter 7 relies on the existing vegetation framework to contain and absorb the scheme, while the arboricultural evidence shows that parts of that same framework are subject to removal, pruning, root-zone activity, cable crossings, access works and construction pressure. The assessment cannot safely assume the vegetation remains unchanged for screening purposes while simultaneously acknowledging unresolved impacts upon it.

The issue is wider than direct tree loss. The Preliminary AIA records survey limitations, future detailed-design requirements and ash dieback affecting a number of trees. Chapter 7 itself accepts that climate change and disease may alter vegetation

composition and result in tree loss over the lifetime of the scheme, although it concludes that such change would not be sufficient to alter its significance judgments. Given how strongly the Year 15 conclusions depend upon vegetation, that assumption requires evidence rather than assertion.

The landscape significance of these features must also be understood correctly. Hedgerows, mature trees and woodland are not merely screens between a viewer and the development. They define historic field boundaries, rural lanes, wooded horizons and the time-depth of the South Norfolk landscape. Their alteration therefore affects landscape character even where replacement planting is provided.

South Norfolk Council raised precisely these issues during consultation, seeking up-front arboricultural information, hedgerow enhancement and attention to tree protection, TPOs, hedgerow loss and long-term management. The Applicant's own subsequent evidence confirms that those concerns were well founded.

BEPS therefore considers that the landscape mitigation case cannot be separated from the arboricultural constraints. Before substantial weight is placed on Year 15 screening, the Applicant must demonstrate receptor by receptor which existing vegetation is retained, what works affect it, what seasonal screening function it actually provides, and whether that function remains credible over a 60-year operational life.

7.16 Mitigation by Screening Does Not Preserve Landscape Character

The Applicant's mitigation case depends heavily on screening. Chapter 7 and the Outline LEMP rely on hedgerow enhancement, new woodland belts, linear tree planting and long-term vegetation management to filter or conceal views of the solar arrays, BESS, substations and associated infrastructure. A 3 m target height for hedgerows is expressly identified as an embedded mitigation measure intended to screen views from nearby PRoWs, roads and residential properties.

BEPS considers that this approach repeatedly confuses visual concealment with landscape preservation. They are not the same thing. A development may become less visible while the underlying landscape character is nevertheless substantially altered. This is particularly important in open plateau landscapes, where openness and expansive sky are themselves defining characteristics.

Chapter 7 effectively acknowledges the problem. At Year 15 it accepts that, in some views, mitigation planting would itself alter the open character of the landscape. At Site 3, for example, a Significant effect remains because screening vegetation changes the open character of the view. At Site 7, the Applicant similarly records continuing Significant effects where mitigation planting influences openness. At the BESS, a Significant Year 15 residential visual effect remains because the screening vegetation itself alters the open character of the view.

The contradiction is clearest at Great Moulton. E2 Great Moulton Plateau Farmland is characterised by openness, exposure, expansive skies and distant views, yet the

principal response to the visual prominence of the BESS and substations is extensive planting. An open plateau does not retain its character simply because industrial infrastructure is eventually hidden behind new woodland. The loss of openness is itself landscape change.

The same issue applies to Site 7 and Site 8, where existing landscape character depends on a particular balance between enclosure, open views, wooded horizons, lanes and field structure. Additional screening may reduce visibility from a receptor while simultaneously changing that balance. It is therefore not sufficient to treat reduced visibility automatically as reduced landscape harm.

BEPS submits that the ExA should distinguish between mitigation which genuinely conserves landscape character and mitigation which merely obscures the development. Where screening requires the character of the receiving landscape itself to be changed, it cannot be treated as an unqualified environmental benefit.

7.17 The Year 15 Case Is Over-Optimistic and Does Not Remove the Harm

Much of the Applicant's case for acceptability depends on the proposition that effects will materially reduce by Year 15 as hedgerows, trees and woodland establish. Chapter 7 repeatedly uses mature planting to reduce magnitude and significance, and the Outline LEMP assumes active management of that vegetation over the long term.

That assumption requires more scrutiny than the assessment gives it. The Year 15 conclusions depend on planting heights, growth rates, survival, management and continued health of both new and existing vegetation. Yet Chapter 7 does not demonstrate in a receptor-specific way what planting height is required to achieve each claimed reduction in effect, how quickly that height is expected to be achieved, or how failure and replacement would affect the timetable.

The future baseline itself acknowledges that climate change may alter vegetation composition and that tree loss may occur through increasing temperatures and disease, including ash dieback. The Applicant nevertheless concludes that such loss would not be sufficient to alter the assessment. That assertion is especially important because the same assessment depends heavily on vegetation to reduce effects. Where existing trees or hedgerows form part of the screening envelope, loss through drought, disease or mortality could materially change visibility.

The arboricultural evidence adds further uncertainty because the existing framework is itself subject to removal, pruning, root-zone works and detailed-design conflicts. New mitigation also has to coexist with ecological objectives, access requirements, security infrastructure and operational maintenance. The assumption that all planting will establish exactly as required and remain effective for a 60-year operational life should not be treated as self-evident.

There is also a more fundamental problem. Even if all mitigation succeeds exactly as predicted, Significant adverse effects remain at Year 15. Site 1 remains Major

Significant; the BESS, Site 7, Site 8, B1 Tas Tributary Farmland and E2 Great Moulton Plateau Farmland remain Significant; and significant visual effects persist at multiple receptors.

The Year 15 case therefore does not demonstrate that the landscape conflict is resolved. It shows only that some effects are expected to reduce, while substantial residual harm persists even under the Applicant's most favourable mature-mitigation scenario.

7.18 Site 7 and Site 8: High Tranquillity, Dark-Sky and Recreational Sensitivity

7.18.1 Site 7

Site 7 is one of the clearest examples of a landscape whose sensitivity is greater than the final site-level rating suggests. Appendix 7.2 describes a landscape of established hedgerows, woodland blocks, ancient woodland, veteran trees and wooded horizons, with a dense PRoW network and proximity to the Boudicca Way. It also records moderate to high tranquillity and some of the darkest night-sky conditions within the scheme.

Despite these characteristics, Site 7 is assigned only Medium sensitivity. The subsequent assessment nevertheless identifies Major Significant construction effects, Significant landscape effects at Year 1 and continuing Moderate Significant landscape effects at Year 15.

The visual evidence is equally important. At Year 1, Significant effects remain at numerous receptors across Site 7, including the Boudicca Way and local PRoWs. At Year 15, Significant effects still remain at several locations, including the Boudicca Way on Fairstead Lane and routes at Saxlingham Nethergate and Shotesham.

This is therefore not a landscape which comfortably absorbs the scheme. The combination of dark skies, tranquillity, recreational use, ancient woodland and mature landscape structure makes Site 7 particularly susceptible to industrialising change. The persistence of Significant effects after fifteen years confirms that the mitigation strategy does not eliminate that conflict.

7.18.2 Site 8

Site 8 is even more difficult for the Applicant because it is expressly assessed as High value, High susceptibility and High sensitivity. The baseline describes a tranquil, wooded valley landscape with PRoWs, Boudicca Way connections, ancient woodland and very dark night skies.

The Applicant nevertheless places substantial solar development within it. Chapter 7 identifies Major Significant landscape effects during construction, Major Significant effects at Year 1 and continuing Moderate Significant landscape effects at Year 15.

Significant visual effects are also identified at several receptors, including Brooke Road, Shotesham routes and Dawsons Farm.

Site 8 is therefore a straightforward example of development being advanced in a landscape the Applicant itself accepts is highly sensitive to change. The subsequent Significant effects are not an unexpected consequence; they are the predictable result of placing large-scale energy infrastructure in a receptor with limited capacity to accommodate it.

BEPS submits that the ExA should give particular weight to Sites 7 and 8 because they combine landscape, recreational, ecological, tranquillity and dark-sky sensitivity in the same locations.

7.19 Site 10: C2, Ditchingham, the Broads Interface and Parkland Context

Site 10 is assessed too narrowly as a collection of inland agricultural parcels. Its wider landscape context is materially more sensitive than its Medium site-level rating suggests.

Appendix 7.2 confirms that Site 10 lies within or across C2 Thurlton Tributary Farmland with Parkland and B5 Chet Tributary Farmland. C2 is assessed High value, High susceptibility and High sensitivity and is characterised by parkland, halls, ancient woodland, remoteness, peacefulness and views towards the Broads. B5 is also assessed High sensitivity and derives part of its value from its relationship with the Broads.

The Applicant's own earlier scoping material records Ditchingham Hall Registered Park and Garden approximately 1.7 km south of Site 10 and identifies Tindall Wood, Ditchingham SSSI and Hedenham Wood SSSI in the same wider landscape. The scoping baseline also recognises the Broads as a landscape defined by, among other qualities, remoteness, tranquillity, wildness, big skies, historic structures and human interaction with the landscape.

Site 10 itself is described in Appendix 7.2 as highly tranquil, sparsely settled and structured by hedgerows, tree belts and plantation woodland, with enclosed lanes and tracks including Pound Lane and Wash Lane contributing strongly to local character. These are precisely the qualities that make the eastern part of the scheme distinct from the more open western plateau.

The Applicant nevertheless reduces Site 10/CRC14 to Medium sensitivity. That sits uneasily with the High sensitivity assigned to the wider C2 and B5 landscapes in which it is embedded. At Year 1, both C2 and Site 10 experience Significant adverse landscape effects on the Applicant's own assessment.

BEPS submits that Site 10 should therefore be understood as part of a sensitive transition between the South Norfolk claylands, historic parkland and the wider Broads-facing landscape, not as an isolated inland solar parcel. Its relationship with

Ditchingham, the parkland context, wooded tributary landscape and enclosed historic lanes should be given materially greater weight.

7.20 Fritton and St Catherine's Church

The Fritton area requires particular scrutiny because the Applicant itself has already accepted its sensitivity through design changes. Chapter 7 identifies the Grade I Church of St Catherine, Fritton Conservation Area and residential properties along The Street as reasons for excluding solar development from the eastern part of Site 5.

That exclusion is an acknowledgment that the relationship between Site 5 and Fritton is environmentally constrained. The remaining development must therefore be assessed with particular care.

BEPS is concerned that the visualisations around St Catherine's Church do not show a robust worst-case seasonal condition. Deciduous vegetation in summer materially obscures key views, despite Chapter 7 itself recognising that winter leaf-off conditions represent the visual worst case.

This is not a minor presentation issue. St Catherine's is a Grade I listed church whose rural setting and relationship with the surrounding fields form part of the way it is experienced. Where summer foliage conceals development that would be more visible in winter, the Examination cannot reliably assess that relationship from summer photomontages alone.

BEPS therefore requests winter leaf-off photomontages and verified wirelines from and around St Catherine's Church and Fritton, showing the remaining Site 5 development under the seasonal conditions in which existing vegetation provides least screening.

7.21 Cable Corridors, Lanes and the Structural Landscape

Chapter 7 tends to characterise the Cable Route Corridor as a temporary and reversible disturbance which, once reinstated, returns broadly to baseline. That description is too simple for a cable network extending across a landscape whose structure is defined by lanes, ditches, hedgerows, trees, watercourses and historic field boundaries.

Construction involves open-cut trenching, stockpiles, haul routes, vegetation removal, hedgerow crossings, tree-root interactions, trenchless crossings, temporary compounds and PRoW disruption. Chapter 7 itself recognises trenching and vegetation loss over long distances, but ultimately predicts No Change across several CRC landscape receptors by Year 15.

The landscape significance of those works depends on what is crossed. Appendix 7.2 assigns Low susceptibility to several CRC parcels despite their interaction with locally valued landscape structure. CRC7 is a particularly clear example: it is rated High overall sensitivity because it lies within the Tas Rural River Valley, but only Low susceptibility to the proposed works. The earlier scheme description confirms that

CRC7 crosses a landscape containing fields, woodland and a Statutory Main River. Nearby ecological evidence also identifies wet meadows, mature hedges and the Hempnall Beck system close to CRC7.

The David Fine landscape evidence is relevant here because it identifies the ditch, lane and field network as part of the historic morphology and functioning of the South Norfolk claylands, rather than as incidental surface features. Cutting across that structure can alter historic legibility, vegetation pattern, hydrological relationships and the experience of rural lanes even where the trench itself is later filled.

The key issue is therefore not whether grass can regrow over a cable trench. It is whether the structural landscape through which the corridor passes is fully restored. Where hedgerows are removed, ditches crossed, root zones disturbed or lane edges altered, “reversibility” should not be assumed without evidence that those relationships can be reinstated in function and character.

7.22 Aviation and Airfield Landscape Cross-Effects

The aviation consequences of East Pye are addressed separately in BEPS’s aviation evidence, but Tibenham Airfield also has a landscape relevance which should not disappear simply because aviation safety is assessed elsewhere.

The Applicant’s visual baseline identifies the wider Tibenham area as part of the visual context of Site 1, and the scheme’s own scoping material records Tibenham Airfield approximately 1 km west of Sub-Site 1A. The Great Moulton Plateau character assessment also identifies former and active airfield landscapes as part of the character of the wider plateau.

The Lighting Strategy separately recognises Tibenham Airfield and pilots as potentially sensitive to glare from construction and operational lighting. This confirms that the airfield lies within the perceptual envelope of the scheme.

The landscape point is therefore simple: Tibenham is not outside the landscape and visual assessment merely because its aviation function is considered elsewhere. The airfield forms part of the open plateau landscape in which Site 1, the BESS and grid infrastructure are located, and the visibility of major energy infrastructure from that landscape contributes to the wider change in character.

BEPS relies on its separate aviation subsection in Chapter 18 of this Written Representation for the safety consequences.

7.23 Ecology and Landscape Are Functionally Interdependent

The distinction drawn between landscape and ecology is useful for chapter organisation, but it should not obscure the fact that many of the same physical features perform both functions.

Hedgerows, ancient and veteran trees, woodland, ditches, riparian corridors and dark-sky areas are simultaneously landscape structure and ecological infrastructure. Chapter 7 relies on them to define character, frame views and provide screening; Chapter 8 relies on them as habitat, movement corridors and ecological connectivity. Their loss or alteration therefore creates combined effects which cannot safely be understood in isolation.

This is particularly important for bats and other nocturnal species. The dark, hedged and wooded corridors at Sites 7 and 8 are landscape features precisely because they create enclosed, tranquil and dark rural character, but they also function as ecological corridors. Lighting, vegetation removal and fragmentation therefore alter both the ecological function and the perceptual character of the same landscape.

The same issue arises at Site 10 and the wider Broome Beck/tributary landscape, where watercourses, woodland, hedgerows and wet ground form part of both the visual structure and ecological connectivity of the eastern scheme area. The Applicant's own scoping evidence identifies ancient woodland and wetland sites close to Site 10 and the cable corridors.

BEPS does not duplicate the species evidence here. The point is methodological: landscape structure is also ecological structure. A conclusion that a hedgerow, ditch or woodland belt can be altered and visually replaced does not establish that its ecological function, historic role or landscape character has been preserved. Chapter 7 should therefore be read together with the ecology, arboricultural and lighting evidence when the ExA assesses the true effect of removing, fragmenting or illuminating these features.

7.24 Cumulative Landscape Industrialisation

Chapter 7 contains a cumulative assessment, but BEPS considers that the wider landscape risk is greater than a project-by-project exercise suggests. The relevant question is not simply whether East Pye produces an additional Significant effect when placed beside one other identified development. It is what happens to the character of the South Norfolk landscape when multiple large solar schemes, BESS, substations, grid reinforcement and associated connection infrastructure accumulate within the same rural area.

This concern was identified at scoping. East Suffolk Council expressly warned that East Pye should not be assessed in isolation and that reasonably foreseeable projects should be considered even where they had not yet reached formal application stage, provided sufficient information existed to assess likely cumulative effects. It highlighted the potential for spatial and temporal overlap with other NSIPs, grid reinforcement projects and large-scale energy developments across Norfolk and Suffolk. Suffolk County Council's scoping material also included a specific cumulative-impact landscape plan identifying East Pye alongside other major energy infrastructure.

BEPS's earlier submissions similarly identified the risk of landscape-scale industrialisation through the concentration of solar, BESS and grid infrastructure in South Norfolk and called for cumulative mapping, combined ZTVs and heritage overlays rather than treating each scheme in isolation. That concern is particularly acute around Great Moulton and Tibenham, where East Pye itself already combines Site 1, the BESS, a 400 kV Project Substation, the National Grid Substation and overhead-line works within an open plateau landscape. It also applies around Long Stratton and the wider 400 kV corridor, where multiple forms of energy and transport infrastructure are already present or proposed.

BEPS does not rely here on every project previously identified during pre-application, because planning status can change. The final cumulative assessment should instead be updated at the Examination date to include only existing, consented and reasonably foreseeable developments falling within the applicable assessment tiers. The principle, however, remains unchanged: all relevant solar, BESS and grid schemes sharing landscape receptors, views, roads, PRoWs, settlement edges or transmission corridors must be assessed together.

The cumulative effect is not confined to additional panels in the same view. It includes repeated loss of open agricultural land, successive encounters with substations and BESS compounds, additional fencing and security infrastructure, cumulative lighting, repeated construction activity and the progressive conversion of rural routes into corridors through energy infrastructure. A resident or walker does not experience each development according to its planning boundary; they experience the resulting landscape.

This is especially important where individual schemes rely on the same mitigation argument. If each development is screened by additional tree belts and woodland, the cumulative result may be the loss of the very openness and long views that define the existing landscape. Cumulative mitigation can itself become cumulative landscape change.

BEPS therefore submits that the ExA should ask not merely whether East Pye can be viewed alongside other schemes, but what the receiving landscape becomes if those schemes proceed together. A landscape-scale cumulative assessment, supported where appropriate by combined ZTV mapping, is necessary before the true extent of industrialisation can be understood.

7.25 Replacement Cycles and Decommissioning Are Not Truly "Temporary"

Chapter 7 treats equipment replacement as part of operation but does not assess it separately, on the basis that its effects would be no greater than construction and are likely to be reduced once mitigation planting has matured. That approach understates the significance of repeated industrial activity over a 60-year operational period.

The Applicant's own scoping material anticipated photovoltaic panels with approximate lifespans of 25–40 years and batteries of 15–20 years. It expressly assumed that solar panels could require replacement up to twice and batteries up to four times during operation. The same material acknowledges that replacement may require HGVs and that the number of trips would exceed ordinary maintenance activity.

These are not incidental events. They form part of the foreseeable life-cycle of the development. Panel and battery replacement may entail heavy vehicles, lifting equipment, temporary working areas, storage, access activity and renewed movement through the same rural road and PRoW network. Mature planting may reduce visibility of some works, but it does not remove their activity, traffic or effect on tranquillity.

The same applies at the end of the operational period. The Applicant assumes a 24-month decommissioning phase and accepts that decommissioning would involve activity broadly similar to construction in reverse. The Applicant's own landscape assessment identifies Significant decommissioning effects across multiple receptors, including NCA 83, B1, E2, the BESS, Site 1, Sites 4, 5, 7, 8, 9 and 10.

Nor is the whole scheme necessarily removed. The original scoping material confirms that the National Grid Substation remains after the solar scheme is decommissioned, and earlier statutory-consultee comments questioned the extent to which cables, access tracks and other infrastructure might also remain.

The language of "reversibility" therefore requires care. East Pye occupies the landscape for up to 60 years, during which major components may be replaced several times, before a further period of significant decommissioning activity, while part of the grid infrastructure remains permanently. That is not temporary in any ordinary landscape sense. It is a three-generation change with repeated periods of industrial intervention.

7.26 Good Design: Screening Harm Is Not the Same as Avoiding Harm

The Applicant's Design Approach Document contains appropriate-sounding principles: respond to local landscape character, retain and enhance vegetation, consider heritage settings, protect quiet lanes and PRoWs, minimise lighting and integrate the scheme into the natural environment. The difficulty is that the final assessed scheme still produces the very harms those principles are intended to avoid.

Site 1 remains Major Significant at Year 15 and is expressly described as experiencing a "total change" to key characteristics. The BESS remains Significant after mature mitigation. Site 7 and Site 8 remain Significantly affected at Year 15. Significant visual effects remain on sensitive PRoWs and residential receptors. Dark and tranquil landscapes are still occupied by large-scale energy infrastructure.

Those outcomes are important because they show that the fundamental problem has not been designed out. The design response has largely been to increase offsets, reinforce hedgerows, add tree belts and woodland and rely on future screening. That

may reduce visibility, but it does not demonstrate that the location and scale of the infrastructure are appropriate.

Good design cannot be demonstrated merely by planting around infrastructure whose siting produces major residual harm. The proper application of the mitigation hierarchy is avoidance first, not screening last.

This is particularly important in landscapes whose defining characteristics are openness, tranquillity or historic field pattern. In those locations, extensive mitigation planting may itself alter the character the design is supposed to conserve. A scheme cannot be said to “respond to local character” if its successful mitigation depends upon replacing that character with a different one.

BEPS therefore submits that the persistence of Significant effects after design evolution is evidence of a siting and scale failure, not simply a need for more detailed landscape treatment.

Subsequent heritage evidence materially reinforces this point. David Edelston’s independent HIA (Appendix G) identifies circumstances in which screening may itself alter the openness, views and historic relationships which contribute to the significance of designated assets. The landscape mitigation case should therefore not treat additional planting as inherently beneficial merely because it reduces visibility of infrastructure. In some locations, enclosure of an historically open setting may itself constitute part of the harm.

7.27 Overall Planning Weight

BEPS asks the ExA to give substantial adverse weight to the landscape and visual effects of East Pye. The harm is geographically extensive, affects multiple landscape character areas and settlements, and is not confined to construction. Many effects are expressly assessed by the Applicant as Significant; some remain Significant after fifteen years of assumed mitigation; and Site 1 remains Major Significant even at that stage.

The harm also extends beyond visibility. It affects landscape character, openness, tranquillity, dark skies, historic morphology, PRoW experience, settlement setting and residential amenity. Several methodological choices identified in this representation — including the treatment of lighting, sensitivity, study areas, seasonal visualisation, residential receptors and mitigation planting — are capable of understating rather than exaggerating those effects.

The fact that East Pye does not lie within a nationally designated landscape does not render the South Norfolk Claylands expendable. The Applicant itself identifies High-sensitivity landscape receptors, including A1 Tas Rural River Valley, B5 Chet Tributary Farmland, C2 Thurlton Tributary Farmland with Parkland, Site 8, the Boudicca Way and Via Beata. National policy still requires landscape character to be properly assessed, protected where possible and harm minimised through appropriate siting and design.

The adverse weight is therefore not based on designation alone. It arises from the scale, persistence and character of the change which the Applicant's own evidence records.

7.28 Remedies and Requirements Sought

BEPS considers that the deficiencies identified above require more than minor clarification during Examination. The ExA should require a revised and integrated landscape assessment which addresses landscape structure, heritage setting, tranquillity, dark skies and route experience together rather than continuing to treat them as largely separate matters. A substantive night-time LVIA should assess the magnitude and significance of construction and operational lighting, including motion-activated security lighting, BESS perimeter lighting and substation lighting, rather than relying solely on the Lighting Strategy.

The Applicant should also provide equivalent winter leaf-off visualisations at sensitive receptors where deciduous vegetation materially affects screening, including St Catherine's Church and Fritton, sensitive settlement edges, principal PRoWs and the Site 1/BESS area. Landscape sensitivity judgments should be revisited for Site 1 and the BESS, Site 7 and Site 10, and Site 10 should be reassessed in its wider C2, parkland, Ditchingham and Broads-facing context.

The ExA should require a route-based assessment of cumulative and sequential PRoW experience, together with further justification for the RVAA decision not to undertake individual assessment of properties between 100 m and 500 m. The Applicant should demonstrate, receptor by receptor, that the Year 15 mitigation assumptions remain robust under establishment failure, drought, ash dieback, tree mortality and management uncertainty, and should distinguish clearly between genuine conservation of landscape character and the loss of openness caused by screening vegetation itself.

A refreshed cumulative landscape assessment should identify all existing, consented and reasonably foreseeable energy infrastructure relevant at the Examination date and should use combined ZTV mapping where necessary to show the cumulative effect on Great Moulton, Tibenham, Long Stratton, the 400 kV corridor, settlement edges and the PRoW network. Stronger DCO controls should also secure tree and hedgerow protection, replacement of failed planting, long-term landscape management, lighting limits and any mitigation on which the significance conclusions depend.

Where those assessments confirm continuing Significant harm, the appropriate remedy is scheme reduction or redesign, including removal or relocation of development from the most sensitive and harmful locations, particularly Site 1 and the BESS. Further screening should not be accepted as the default response where the screening itself changes the landscape character.

BEPS submits that Chapter 7 does not demonstrate that East Pye can be accommodated within this landscape without unacceptable and enduring harm. The Applicant's own evidence records extensive Significant adverse effects, including major long-term effects which remain after fifteen years of mitigation. Those conclusions are

already serious; the methodological deficiencies identified above mean that the true harm is likely to be greater. Where the landscape cannot accommodate the scale and industrial character of the Scheme without continuing Significant effects, the appropriate response is not more screening but reduction, relocation or removal of the offending development. Unless those conflicts are satisfactorily resolved, the landscape and visual impacts weigh materially against the grant of development consent.

End of Volume 1.

Written Representations submitted in response to East Pye Solar
PINS Reference: EN0110014

Volume 2: Chapters 8– 10

Submitted by BEPS (Block East Pye Solar F816760F0)

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Chapter 8: Ecology and Biodiversity

Introduction

East Pye Solar is not proposed on ecologically ordinary farmland containing isolated features. It would industrialise a single, functionally connected ecological landscape of national importance for bats, multiple barbastelle maternity-colony networks, ancient woodland, veteran trees, priority hedgerows and field margins, chalk streams, protected aquatic species, farmland-bird habitat and unsurveyed botanical assemblages. Because those functions cannot reliably be recreated or compensated for, avoidance is the only policy-compliant response.

8.1 Executive summary and principal conclusions

East Pye Solar is not proposed on ecologically ordinary farmland containing a small number of discrete features that can be protected through standard buffers and construction controls. The Order Limits extend across a receptor-dense and functionally connected South Norfolk Claylands landscape comprising ancient and veteran trees, species-rich hedgerows, arable field margins, ponds, woodland edges, County Wildlife Sites, Roadside Nature Reserves, SSSI woodlands, lowland fen, grazing marsh, chalk-stream tributaries and extensive surface-water and groundwater networks. These features operate together as ecological infrastructure. The Scheme would introduce panels, substations, BESS infrastructure, fencing, access tracks, haul routes, compounds, cable trenches, watercourse crossings, lighting and road widening throughout that network. Its ecological effects therefore cannot properly be assessed as a series of small, isolated habitat losses.

The Applicant's own bat evidence fundamentally changes the proper characterisation of the Scheme area. The Bat Activity Survey Report assesses the bat assemblage across the Order Limits as being of national importance. Barbastelle, a nationally rare Annex II species and European Protected Species, was the third most frequently recorded bat species and was detected at every static survey location. The Applicant also records multiple barbastelle maternity colonies around the Scheme and accepts that the Order Limits fall within overlapping Core Sustenance Zones supporting those colonies. The Applicant's evidence therefore establishes that the Scheme is not merely close to isolated bat roosts: it occupies a landscape used at scale for roosting, commuting and foraging by a nationally important bat assemblage and by multiple barbastelle maternity populations.

That conclusion is inseparable from the existing woodland, hedgerow and watercourse network. The Forestry Commission identifies ancient woodland as irreplaceable habitat and has warned that woodland isolation and fragmentation are major threats, particularly where small woods become surrounded by development. Its advice emphasises that buffers must form part of wider ecological networks rather than operate as narrow separation distances. The South Norfolk Tree Warden Network similarly identifies trees and hedgerows as functional ecological infrastructure, notes 621 trees with potential to support roosting bats, and warns that repeated hedgerow gaps, access

works, haul-road disturbance and later reinstatement have not been assessed adequately in terms of cumulative functional connectivity.

The ecological baseline remains materially incomplete. Most seriously, the Applicant has undertaken no proper full-season botanical survey despite pre-application evidence from a Level 6 botanist familiar with the South Norfolk Claylands that rare and important plant assemblages occur in the area and that seasonal botanical survey was required. The omission is especially serious because the least-surveyed habitats—roadside verges, field margins, ancient hedges, ditch edges and semi-natural strips—are among those most threatened by highway widening, visibility splays, new accesses, haul routes, cable works and construction compounds. The Applicant's own extended habitat work expressly disclaims being a full botanical survey. It cannot demonstrate avoidance of botanical harm without first identifying the resource at risk.

The aquatic baseline is also incomplete. The Applicant's appraisal was habitat-led, was undertaken during unusually dry conditions and acknowledges that ephemeral headwaters and field ditches may have been under-represented. The ExA has already requested further information because concerns raised by South Norfolk Council, Norfolk Wildlife Trust and BEPS about white-clawed crayfish could not be resolved on the existing survey material. Independent evidence identifies an isolated River Tas population close to the Scheme, while the Environment Agency's earlier records and scoping advice confirmed that white-clawed crayfish required consideration. The connected River Tas, Hempnall Beck, Starston Brook, Broome Beck and associated ditch systems provide plausible pathways for sediment, pollution, disease, altered flows and hydrological disturbance.

The Environment Agency's Relevant Representation confirms that significant ecological and water-environment matters remain unresolved. It requires further consideration of effects on fish, European eel, aquatic macroinvertebrates, groundwater-dependent ecosystems and water quality; questions the assessment of electromagnetic effects on eel; identifies the potential for solar panels to affect macroinvertebrate lifecycles; and states that BNG and riparian recommendations require proper securing. It also identifies unresolved risks from piling, underground cabling, groundwater pathways and contaminated land. These are not incidental drafting matters. They demonstrate that the pathways linking construction, hydrology and ecological receptors have not yet been fully assessed or controlled.

Norfolk Wildlife Trust reaches the same broad conclusion from a landscape-scale perspective. It states that further information and design refinement are required before the Scheme can be regarded as ecologically acceptable; raises concerns about County Wildlife Sites, Roadside Nature Reserves, ancient woodland, lowland fen, non-designated verges and barbastelle habitat; and warns that HDD locations, compounds, lighting, vehicle movements and buffer distances remain unresolved. Local residents at Wood Green likewise identify ecological connectivity between Wood Green CWS, Crow Green, Tyrrell's Wood, Fritton Common, roadside reserves and hedgerows, together with breeding bats, great crested newts, water vole, turtle dove, other breeding birds and an important winter starling murmuration. Their evidence confirms that the effects feared by

professional and statutory consultees are observable landscape-scale effects, not theoretical concerns.

South Norfolk Council's consultation response also demonstrates that the mitigation case was not settled. It sought specific protection for veteran trees, important bat flight lines and dark corridors; requested clarity about which ecological enhancements would survive decommissioning; required updated ecological and arboricultural information to inform later plans; and emphasised the need for commitments concerning watercourses, ponds, bat routes and long-term habitat retention. The Norfolk Barbastelle Study Group has separately called for further work to establish the full distribution and habitat use of maternity colonies, including radio-tracking and further woodland assessment. The current baseline therefore does not provide the certainty needed to assess effects on the very species that make the area nationally important.

The four principal defects are accordingly clear.

- First, the ecological baseline is incomplete. There is no full botanical survey; the aquatic work was limited and dry-condition biased; white-clawed crayfish evidence was not adequately incorporated; and important questions remain concerning birds, bats, trees, aquatic invertebrates and other protected species.
- Second, ecological function and connectivity have been underestimated. The Applicant assesses individual habitats and crossings but does not adequately assess the Scheme-wide consequences of repeated hedgerow severance, woodland enclosure, lighting, fencing, road widening, construction disturbance and alteration of hydrological pathways across a nationally important bat and chalk-stream landscape.
- Third, mitigation is generic, deferred and insufficiently secured. The ecology case relies heavily on the Outline LEMP, future CEMPs and OEMPs, later surveys, later protected-species licensing, later lighting design, later method statements and metric-based BNG assumptions. Those documents do not presently fix the locations, standards, performance criteria and remedial mechanisms necessary to demonstrate that ecological function will be maintained. A positive BNG metric cannot answer the distinct questions posed by European Protected Species, ancient woodland, veteran trees, rare botanical assemblages, hydrological deterioration or species-population viability.
- Fourth, the Scheme has not avoided impacts that cannot reliably be mitigated or compensated. EN-1, EN-3, EN-5 and the NPPF place avoidance at the top of the mitigation hierarchy. Instead of avoiding this sensitive ecological landscape, the Applicant has selected it for industrial-scale development and then relied on buffers, habitat creation and future management to justify that choice. That reverses the proper hierarchy. Mature hedgerow networks, ancient woodland relationships, established barbastelle maternity support habitat, chalk-stream ecological function, rare plant assemblages and long-established stewardship habitat cannot be assumed to be recreated through later planting or accounted for through habitat units.

The representations of the Environment Agency, Forestry Commission, Norfolk Wildlife Trust, South Norfolk Council, local residents, the South Norfolk Tree Warden Network, the Norfolk Barbastelle Study Group and BEPS approach the Scheme from different statutory, technical and local perspectives. They nevertheless converge on the same underlying concerns: an incomplete baseline; a highly connected and unusually sensitive ecological landscape; unresolved impacts on protected species, watercourses, ancient woodland and hedgerows; and excessive dependence on later design and management. The available evidence does not establish that those effects can be avoided, effectively mitigated or lawfully compensated.

BEPS therefore submits that the ecological case for East Pye Solar has not been made. The Scheme conflicts with the mitigation hierarchy, places protected species and irreplaceable habitats at unresolved risk, and relies on incomplete evidence and deferred mitigation to support conclusions of no significant effect. Development consent should be refused on ecology and biodiversity grounds.

8.2 Legal and policy framework

The relevant legal and policy framework is not confined to a general presumption in favour of renewable energy. National energy policy expressly requires ecological harm to be identified, avoided and, only where avoidance is not possible, reduced and mitigated through measures that are effective and properly secured. Separate statutory regimes apply to European sites, European Protected Species, SSSIs, irreplaceable habitats and biodiversity net gain. Those protections are not displaced by the general need for low-carbon infrastructure or by a positive biodiversity metric.

8.2.1 EN-1, EN-3 and EN-5

EN-1 requires applicants to apply the mitigation hierarchy. Adverse effects should first be avoided, including through site selection, layout and design. Effects that cannot be avoided must then be reduced or mitigated; restoration and compensation arise only after the earlier stages of the hierarchy have genuinely been exhausted. The hierarchy is therefore sequential. An applicant cannot select an ecologically damaging location, proceed directly to habitat creation or biodiversity accounting, and treat the resulting metric uplift as equivalent to avoidance.

This is particularly important where the affected receptors are difficult or impossible to recreate. Ancient woodland, ancient and veteran trees, established protected-species networks, mature hedgerows, chalk-stream systems and long-developed botanical assemblages cannot be treated as interchangeable with newly planted habitat. EN-1 requires the direct and indirect effects on ancient woodland, ancient and veteran trees and other irreplaceable habitats to be addressed during construction and operation. The Applicant's own policy material recognises the mitigation hierarchy and the protection afforded to irreplaceable habitats, yet its ecology case relies extensively on buffers, later habitat creation and management measures rather than demonstrating that the principal harms have been avoided.

Mitigation relied upon to reduce an effect or to support a conclusion of no significant effect must also be sufficiently defined, effective and secured. It is not enough to identify broad aspirations for woodland planting, hedgerow enhancement, dark corridors, watercourse buffers or species

protection while leaving their precise location, specification, timing, monitoring and remedial mechanisms to later plans. Where mitigation is necessary to establish that the Scheme is environmentally acceptable, the Examination must be able to understand what will be delivered, how it will operate, by what legal mechanism it will be secured and what will occur if it fails.

EN-3 applies those principles to renewable energy infrastructure. Policy support for solar generation does not remove the need to select environmentally appropriate land, assess the ecological consequences of the particular proposal and follow the mitigation hierarchy. The location, scale and layout of a solar scheme remain material. National need cannot convert an avoidable impact on protected species or irreplaceable habitat into an acceptable one.

EN-5 is relevant because East Pye includes extensive linear grid and cable infrastructure. It recognises that electricity-network development can provide opportunities to reconnect habitats through green corridors, stepping stones and restored hedgerows. That policy objective is the opposite of permitting linear works to sever existing networks without a full assessment of functional connectivity. Cable corridors, access roads, highway works and grid infrastructure must therefore be assessed not merely by the area of habitat physically removed, but by their effects on continuity, permeability and the functioning of the wider ecological network.

EN-1, EN-3 and EN-5 also require consideration of indirect, secondary and cumulative effects. For East Pye, this includes not only direct habitat loss but:

- repeated hedgerow severance and woodland-edge disturbance;
- lighting, noise and vibration affecting bat roosting, foraging and commuting;
- fragmentation caused by fencing, roads and infrastructure;
- sediment, pollution and hydrological effects transmitted through connected watercourses;
- cumulative disturbance from multiple compounds, crossings and development parcels;
- and effects in combination with other solar, BESS, grid, transport and housing proposals.

A parcel-by-parcel assessment which retains individual features but fails to assess whether the landscape continues to function ecologically does not satisfy that policy framework.

8.2.2 National Planning Policy Framework

The National Planning Policy Framework was replaced on 17 August 2026. The Energy NPSs remain the primary policy framework for this NSIP, but the current NPPF materially reinforces the mitigation-hierarchy and ecological-network issues raised in this chapter.

Policy N2 requires significant biodiversity harm first to be avoided through locating development on an alternative site with less harmful impacts where such harm cannot otherwise be avoided, before moving through mitigation and, as a last resort, compensation. It also requires ecological networks extending beyond the site to be protected and strengthened and requires agricultural land quality and grade to be taken into account, with poorer-quality agricultural land used where possible. Those provisions do not mean that every ecological constraint automatically requires refusal or relocation. They do mean that avoidance must genuinely precede reliance on buffers, habitat creation and compensation where the affected ecological function cannot readily be recreated.

The NPPF affords additional protection to SSSIs. Development on land within or outside an SSSI which is likely to have an adverse effect on it should not normally be permitted. The relevant issue is therefore not limited to direct development within the designated boundary. Indirect effects—including hydrological change, fragmentation, isolation, lighting, noise, dust, pollution and disturbance—must also be considered. This is material to East Pye because several SSSI woodlands lie immediately adjacent or very close to proposed development and form part of the ecological network used by protected species.

Development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees, should be refused unless there are wholly exceptional reasons and a suitable compensation strategy exists. 'Deterioration' is wider than direct felling. It includes degradation of ecological condition or function through isolation, root damage, altered hydrology, edge effects, lighting, disturbance and surrounding development. The Forestry Commission's concern that small ancient woods may become isolated or enclosed is therefore directly relevant to the policy test.

Compensation does not remove the need to demonstrate wholly exceptional reasons, nor does new planting recreate ancient woodland. Newly planted woodland, hedges or scrub may provide future value, but they cannot be treated as functionally equivalent to habitats whose ecological characteristics have developed over centuries. The Applicant's own documents recognise 31 Ancient Woodland Inventory sites and lowland fen parcels within the surrounding landscape, together with SSSI woodland adjoining parts of the Scheme.

8.2.3 Habitats Regulations and European Protected Species

Two distinct legal regimes must be kept separate.

First, the Conservation of Habitats and Species Regulations 2017 govern effects on European sites. Where a plan or project is likely to have a significant effect on a European site, either alone or in combination, and is not directly connected with its management, the competent authority must undertake an Appropriate Assessment. At screening stage, likely significant effects may be excluded only on the basis of objective information. Where a credible impact pathway remains and the evidence is incomplete, uncertainty cannot be treated as evidence of no effect. The precautionary approach requires the matter to proceed to Appropriate Assessment.

At the Appropriate Assessment stage, consent may be given only where the competent authority has ascertained that the project will not adversely affect the integrity of the European site. That conclusion must be reached without reasonable scientific doubt. In the present case, the potential pathways include hydrological connectivity through the Tas, Yare, Waveney and associated groundwater and ditch networks, together with any properly evidenced relationship between European-site qualifying interests and functionally linked land.

Secondly, all bats, including barbastelle, are subject to strict species protection. It is an offence, subject to the statutory provisions, deliberately to capture, kill or disturb protected bats, to

damage or destroy a breeding site or resting place, or to obstruct access to such places. These protections apply whether or not the relevant roost lies within a European site.

Where the Scheme would otherwise risk an offence, a European Protected Species licence may be required from Natural England. A licence can be granted only where the statutory derogation tests are met, including:

- the activity is undertaken for a permitted statutory purpose;
- there is no satisfactory alternative; and
- the action will not be detrimental to maintaining the population of the species concerned at favourable conservation status in its natural range.

The DCO decision-maker does not determine the EPS licence itself, but it must have regard to the protected-species position and should not proceed on an evidential assumption that a later licence will resolve material impacts where the information presently available leaves the licensing position materially uncertain. The availability of a future contractor-led application is not evidence that the tests can be met.

That issue is especially acute where the Applicant's own evidence identifies a nationally important bat assemblage, widespread barbastelle activity, multiple maternity colonies and overlapping Core Sustenance Zones. The 'no satisfactory alternative' test is relevant to any later EPS licence application and requires the available alternatives to be considered in that licensing context. The EIA and planning assessment should therefore provide sufficient evidence about the affected population, functional habitat and design alternatives to enable that later statutory process to be approached on a properly informed basis. The favourable-conservation-status test requires evidence about the population, roost network, foraging habitat and commuting function likely to be affected. Where the Norfolk Barbastelle Study Group has called for further survey and radio-tracking, and where the Scheme-wide functional use of the landscape remains incompletely understood, the grantability of any licence cannot simply be presumed.

The precautionary principle is therefore relevant under both regimes, although in different ways. Under HRA, unresolved scientific doubt prevents the competent authority from screening out likely significant effects or concluding no adverse effect on integrity. Under EPS licensing, an incomplete population and functional-habitat baseline undermines confidence that the statutory licensing tests, particularly no satisfactory alternative and maintenance of favourable conservation status, can be met.

8.2.4 Environment Act 2021, NERC Act 2006 and the BNG hierarchy

The Environment Act 2021 strengthens the statutory framework for biodiversity recovery and establishes biodiversity net gain requirements. It does not replace the mitigation hierarchy. BNG is additional to the requirement to avoid and mitigate ecological harm. It is not a permission to cause avoidable damage wherever a numerical uplift can subsequently be calculated.

South Norfolk Council has correctly noted that the statutory Biodiversity Gain Hierarchy is distinct from, although related to, the wider ecological mitigation hierarchy. BEPS therefore does not treat the two as interchangeable. The significance of BNG here is that habitat-unit accounting cannot

displace the separate requirements to avoid and mitigate harm to protected species, designated sites and irreplaceable habitats before biodiversity gains are relied upon.

The statutory biodiversity metric is principally a habitat-accounting tool. It does not determine:

- whether an offence against a European Protected Species will occur;
- whether the Habitats Regulations tests are met;
- whether an SSSI will be adversely affected;
- whether deterioration of ancient woodland or veteran trees is acceptable;
- whether Water Framework Directive deterioration will occur;
- whether a maternity-colony support landscape will remain functional;
- or whether rare botanical or species assemblages can be recreated.

Habitat units therefore cannot override species protection, European-site duties or policy concerning irreplaceable habitats. A positive BNG result may coexist with unacceptable or unlawful harm to a protected species or an irreplaceable ecological function. This limitation is particularly material at East Pye because the Applicant relies on habitat creation and enhancement while the principal concerns involve landscape-scale barbastelle function, ancient woodland connectivity, chalk-stream ecology, white-clawed crayfish, established stewardship habitat and unsurveyed botanical assemblages. The BEPS RR already identifies that the Applicant's metric-based claims do not answer those functional and legal constraints.

Section 40 of the Natural Environment and Rural Communities Act 2006, as strengthened by the Environment Act, requires public authorities exercising their functions to have regard to what they can properly do to further the general biodiversity objective, including the conservation, restoration and enhancement of populations and habitats. Section 41 identifies habitats and species of principal importance for conserving biodiversity. These duties require more than preventing complete habitat loss. They direct attention to ecological recovery, functioning networks and the condition and resilience of priority habitats and species.

The Secretary of State must therefore consider whether granting consent would further or frustrate biodiversity conservation and enhancement. That judgment cannot be reduced to the Applicant's headline BNG percentage. It must account for the quality, location, connectivity, durability and species function of what exists, what would be harmed and what is actually secured for the lifetime of the Scheme.

Central policy submission

On the Applicant's own cited legal and policy framework, ecological harm must first be avoided. Compensation, biodiversity enhancement and metric gains arise only after genuine avoidance and minimisation have been demonstrated. East Pye Solar instead selects a highly sensitive landscape containing nationally important bat habitat, overlapping barbastelle maternity-colony networks, SSSI and ancient woodlands, veteran trees, chalk streams, protected aquatic species and potentially important botanical assemblages, and then seeks to compensate for its industrialisation through buffers, outline management plans, future planting and BNG.

That approach reverses the mitigation hierarchy. It does not demonstrate compliance with EN-1, EN-3, EN-5, the NPPF, the Habitats Regulations, protected-species legislation or the statutory biodiversity duties. Where the affected ecological functions cannot reliably be recreated, mitigated or compensated for, the lawful and policy-compliant response is avoidance.

8.3 The proper ecological characterisation of the Scheme area

A fundamental flaw running throughout Chapter 8 of the Environmental Statement is the Applicant's characterisation of the Order Limits as predominantly agricultural land of generally moderate ecological value containing a series of discrete habitats capable of being retained, buffered or recreated through mitigation. That is not supported by the Applicant's own evidence, by the wider ecological evidence available for the South Norfolk Claylands, or by the representations of statutory and specialist consultees.

The correct starting point is that East Pye Solar occupies a highly connected historic landscape whose ecological importance derives not simply from individual designated sites or priority habitats, but from the interaction between ancient landscape structure, woodland, hedgerows, field margins, ponds, chalk-stream catchments, veteran trees and extensive habitat corridors. The ecological function of this landscape depends upon connectivity across the whole network rather than upon the survival of isolated habitat fragments.

This distinction is critical. A scheme may avoid direct loss of many individual habitat parcels while nevertheless causing significant ecological harm through fragmentation, disturbance, lighting, hydrological change and the cumulative erosion of ecological connectivity.

8.3.1 A connected South Norfolk Claylands ecological system

The Applicant's own Figures 8.2, 8.3 and 8.5 demonstrate that the Order Limits overlay an extensive ecological network rather than isolated ecological receptors. These figures show a landscape containing numerous priority habitats, interconnected hedgerows, woodland blocks, ponds, watercourses and designated sites extending across the entire Scheme rather than occurring as occasional isolated features.

This reflects the historic character of the South Norfolk Claylands.

As explained by Professor Tom Williamson in Restoring the Claylands, the Claylands developed over many centuries as an intricate landscape of small fields, ancient hedgerows, numerous hedgerow trees, ponds, commons, woodland, roadside grasslands and interconnected habitats. Although agricultural intensification removed many features during the twentieth century, important fragments remain and continue to provide the framework for biodiversity across the landscape. Importantly, Professor Williamson explains that historical land management unintentionally created not merely individual habitats but ‘a wealth of connections between them’, and that restoration should work with this historic ecological framework rather than impose generic habitat creation that ignores local landscape character.

This historic ecological framework is directly relevant to East Pye Solar. Across the Order Limits there remain:

- ancient species-rich hedgerows forming continuous commuting corridors;
- mature hedgerow trees and veteran trees;
- woodland blocks and woodland edge habitats;
- ponds, ghost ponds and wet features;
- field margins managed for biodiversity;
- ditch systems, tributaries and chalk-stream headwaters;
- areas of grassland, fen and grazing marsh;
- County Wildlife Sites;
- Roadside Nature Reserves;
- ancient woodland;
- adjacent Sites of Special Scientific Interest.

These features do not operate independently. Ancient hedgerows connect woodland to woodland. Woodland edges connect to ponds and ditches. Field margins connect to roadside verges. Roadside Nature Reserves connect to County Wildlife Sites.

Watercourses connect through both surface water and groundwater into the wider River Tas and River Waveney catchments.

The Applicant's own bat surveys demonstrate that barbastelles and numerous other bat species use this connected landscape at a scheme-wide scale rather than restricting activity to isolated habitat patches. Likewise, the aquatic ecology evidence demonstrates that ecological pathways extend beyond individual watercourses through hydrologically connected catchments.

The historic landscape guidance prepared for Norfolk Wildlife Trust reinforces precisely this point. It explains that ecological restoration should seek to maintain and reinforce the historic web of biological connectivity created by hedges, trees, ponds, commons, field margins and woodland, because those connections are themselves fundamental ecological assets. It specifically identifies hedgerows as wildlife corridors, ponds as functioning parts of wider ditch and stream networks, and grassland strips, roadside verges and field margins as historically interconnected habitats rather than isolated parcels.

The Applicant's assessment largely considers the retention or enhancement of individual habitat parcels. It does not adequately assess whether the ecological network itself will continue to function after sixty years of industrial development.

8.3.2 Priority habitats throughout the Order Limits

The Environmental Statement identifies numerous Priority Habitats distributed throughout the Scheme. The significance of these habitats lies not simply in their individual presence but in the ecological relationships between them. Species-rich hedgerows provide commuting and foraging corridors for bats, nesting habitat for farmland birds, refuge for mammals and invertebrates, and

botanical diversity developed over centuries.Woodland blocks and woodland edges support roosting bats, breeding birds, veteran trees, fungi and deadwood communities while acting as ecological stepping stones across the wider landscape. Ponds, ghost ponds, ditches and tributaries provide breeding habitat for amphibians and aquatic invertebrates while remaining hydrologically linked to wider chalk-stream systems. Field margins support botanical assemblages, pollinating insects, seed-producing plants and farmland birds including skylark, lapwing and turtle dove. Grassland, fen and grazing marsh contribute additional habitat diversity and provide ecological continuity between otherwise discrete features.

The Applicant's assessment frequently treats these habitats individually. However, the principal impact pathways arise from fragmentation of the network that links them.

Throughout the Scheme, construction requires:

- road widening;
- visibility splays;
- new accesses;
- haul roads;
- cable corridors;
- compounds;
- trenching;
- HDD compounds;
- permanent access tracks;
- substations;
- BESS infrastructure;
- extensive security fencing.

Each intervention may appear individually limited. However, collectively they create repeated interruptions to the ecological network across almost the entire Order Limits.

The Forestry Commission has warned that fragmentation represents one of the greatest threats to ancient woodland, particularly where smaller woodland blocks become increasingly isolated within surrounding development. The South Norfolk Tree Warden Network similarly concludes that repeated hedgerow crossings, access works and disturbance must be assessed cumulatively because ecological infrastructure depends upon connectivity rather than the survival of isolated fragments.

The Applicant's reliance upon retaining individual habitat parcels therefore does not demonstrate that ecological function has been maintained. A retained woodland surrounded by development is not ecologically equivalent to one remaining embedded within an intact landscape. A retained hedgerow interrupted by repeated crossings does not perform the same function as an uninterrupted commuting corridor. A retained pond whose hydrological connections have altered is not functionally identical to its existing condition.

Ecological connectivity, rather than simple habitat area, is therefore the appropriate measure of likely significant effect.

8.3.3 Existing publicly funded conservation management

The ecological importance of the landscape is further demonstrated by the extensive public investment already made in habitat restoration. Large areas within the Order Limits have been managed under Countryside Stewardship agreements since 2013, with current agreements extending until 2028. The Site 5 objection identifies two alive Countryside Stewardship agreements covering Sites 5A and 5B—CSFREF1375492 and CSFREF829633—as shown on MAGIC on 5 July 2026. The ES does not assess what those agreements presently deliver or the consequences of terminating or displacing them. There are also live Stewardship agreements covering the western end of site 7.

These agreements have funded the creation and long-term management of habitats specifically intended to recover biodiversity within the South Norfolk Claylands. The Applicant's own surveys record the biodiversity value that has resulted from this management, including habitat supporting nationally important bat assemblages, farmland birds, botanical interest and wider ecological connectivity.

The timing is therefore highly significant. Construction of East Pye Solar is proposed immediately after the expiry of many stewardship agreements. Accordingly, habitat that has been established and maintained over many years through public funding would be removed, fragmented or substantially altered immediately after those agreements conclude. This creates an obvious contradiction.

The Applicant relies upon Biodiversity Net Gain calculations which credit the creation of future habitat while simultaneously proposing development that would remove or degrade habitat created through previous publicly funded biodiversity enhancement.

The purpose of Countryside Stewardship is to increase biodiversity across working farmland.It cannot represent good environmental planning to destroy functioning conservation habitat immediately after its successful establishment and then claim biodiversity gains by recreating different habitat elsewhere within the same development. This approach does not reflect genuine ecological enhancement. Rather, it substitutes existing functioning ecological networks with new habitat whose future condition, maturity and ecological function remain uncertain for many years.

8.4 Incomplete and unreliable ecological baseline

The reliability of every later conclusion in Chapter 8 depends upon the adequacy of the ecological baseline. Assessments of receptor value, magnitude of effect, significance, mitigation, residual effects, Biodiversity Net Gain, Habitats Regulations compliance and protected-species licensing can only be sound where the habitats, species populations, ecological functions and impact pathways have first been identified with sufficient completeness and accuracy.

That requirement is particularly important for East Pye because the Applicant's own evidence establishes an unusually sensitive ecological context. The Order Limits support a nationally important bat assemblage, fall within the functional landscape of multiple barbastelle maternity colonies, intersect a connected network of priority habitats and watercourses, and lie adjacent to ancient woodland, SSSIs, County Wildlife Sites and Roadside Nature Reserves. In that context, omissions cannot properly be treated as minor matters capable of correction by pre-construction surveys. They affect the identification and valuation of receptors, the design of the Scheme, the choice between avoidance and mitigation, and the ability of the Examining Authority to understand the likely significant effects before consent is granted.

The baseline is deficient in four principal respects:

- no full botanical survey has been undertaken despite specialist evidence that rare and important assemblages may occur in the areas most exposed to construction;
- important species and functional relationships remain incompletely surveyed or are deferred to later stages;
- the aquatic assessment is habitat-led, spatially restricted and affected by dry survey conditions that may understate seasonal connectivity and ecological importance; and
- relevant local, specialist and professionally verified evidence was not consistently identified, incorporated or reconciled with the Applicant's conclusions.

These are cumulative defects. Together, they undermine the confidence that can be placed in the Applicant's assessment of significance and in its assertion that ecological effects can be avoided or adequately mitigated.

8.4.1 Absence of a full botanical survey

The most conspicuous baseline omission is the absence of a proper full-season botanical survey.

The Applicant's extended habitat assessment expressly states that it is not a full botanical survey. Its principal purpose was broad habitat classification and preliminary ecological appraisal. Incidental recording of dominant or notable plants during UK Habitat Classification work is not equivalent to a systematic botanical survey designed to identify rare species, locally important assemblages, ancient-grassland indicators, species-rich verge communities or variations across the growing season.

That limitation is critical in the South Norfolk Claylands. The ecological interest of this landscape is frequently concentrated within narrow or linear features that may appear modest when mapped at a broad habitat level but support disproportionately important botanical communities. These include:

1. old roadside verges;
2. ancient lanes;
3. species-rich hedgebanks;
4. ditch banks and wet margins;

5. unploughed field margins;
6. former common edges;
7. Roadside Nature Reserves;
8. lowland meadow remnants;
9. woodland rides and edges;
10. pond margins and seasonally wet ground.

The historic-landscape evidence confirms that these features are surviving components of a much older and formerly more extensive network of grassland, commons, broad verges, field 'borders', ditches, ponds and ancient hedges. Professor Tom Williamson's Restoring the Claylands explains that roadside grasslands, field margins, hedgerows, ponds and minor watercourses historically formed continuous habitat networks, and that surviving fragments retain both ecological and historic significance. It also explains that older Claylands hedges commonly contain multiple woody species and that narrow grassland strips and roadside verges can provide important connectivity even where surrounded by arable farming.

Before the application was submitted, a Level 6 botanist familiar with this part of the South Norfolk Claylands advised that a full-season botanical survey was required because of the presence, or credible likelihood, of important and rare plant assemblages across the Scheme area. That evidence was supplied during the pre-application process. It was not answered by commissioning a comprehensive seasonal survey.

The omission is particularly serious because the greatest threat to botanical receptors does not necessarily arise beneath the solar panels themselves. It arises in the linear habitats selected for engineering and transport works. The Scheme proposes or allows:

- widening of narrow rural lanes;
- excavation or stripping of roadside verges;
- visibility splays;
- new and widened accesses;
- haul roads;
- construction compounds;
- temporary working areas;
- cable trenches and joint bays;
- HDD compounds;
- drainage works;
- hedgerow gaps;
- soil storage;
- vehicle overrunning and compaction.

These activities are concentrated in the very field margins, verges, hedgebanks, ditch edges and semi-natural strips where botanical interest is most likely to have survived.

The concern is reinforced by the representation concerning Parker's Lane and the designated Roadside Nature Reserve, where local evidence identifies lowland meadow interest and calls for a

full botanical and hedgerow survey before widening or crossing works are authorised. The historic loss of lowland meadow in the Claylands makes the remaining fragments particularly important. Broad habitat labels or desk-based priority-habitat mapping cannot determine the precise composition, quality or rarity of these communities.

- The absence of survey has several consequences.
- First, botanical receptors may be omitted entirely from the ES. A species or assemblage that was not searched for cannot be properly valued or assessed.
- Secondly, the Applicant cannot demonstrate that the design has followed the mitigation hierarchy. Avoidance requires the ecological resource to be identified before the location of roads, accesses, compounds, visibility splays and cable works is fixed.
- Thirdly, the BNG baseline may undervalue habitats that have been categorised at a broad level without understanding their botanical distinctiveness or condition.
- Fourthly, later discovery may leave no realistic avoidance option. By the time pre-construction surveys are carried out, the principle and broad parameters of development, compulsory-acquisition powers and access arrangements may already have been authorised.

The Applicant cannot claim that botanical harm will be avoided or mitigated when it has not established the botanical baseline in the places most likely to be damaged.

ISH1 has now resulted in a specific action requiring the Applicant to engage with local botanical evidence concerning rare plant records and the effects of proposed road widening and access works. That action materially reinforces the point made here: roadside verges, field margins and access routes cannot safely be treated as low-value construction margins before their botanical interest has been established through appropriate survey.

8.4.2 Incomplete species and functional evidence

The baseline deficiency extends beyond botany. The application contains a substantial quantity of ecological survey material, but volume does not itself establish completeness. Important species, population functions and impact pathways remain unresolved, while some essential matters are deferred to future surveys, licensing processes or contractor-led plans.

Breeding and wintering birds

The Scheme affects extensive arable land, field margins, hedgerows, grassland and stewardship habitat used by ground-nesting and farmland birds. Available evidence identifies species including skylark, lapwing, turtle dove, yellowhammer, linnet, reed bunting, bullfinch, song thrush and other red- and amber-listed birds. Local evidence also identifies a substantial winter starling murmuration and concern that major construction activity may disrupt its continued use of the area.

The baseline does not yet demonstrate that the different ecological requirements of these species have been fully assessed at the scale of the Scheme. Skylark, lapwing and turtle dove cannot be treated as one generic 'farmland bird' receptor:

- skylark require suitable open nesting and foraging conditions;
- lapwing require extensive open ground, appropriate vegetation structure and broad sightlines;
- turtle dove depend upon a different combination of nesting scrub, hedgerows, seed-rich foraging habitat and accessible water.

The earlier design history is also relevant. Areas previously presented as open habitat for nesting birds were subsequently reduced or altered without an equivalent updated assessment of the effect on lapwing or other ground-nesting species. BEPS' procedural evidence records that land within Site 7 identified as a stewardship priority for lapwing was reduced in later design iterations without a corresponding updated ecological assessment.

Where breeding-bird and badger appendices were not available for scrutiny at earlier stages, affected communities and consultees were unable to test the raw evidence, methodologies and conclusions. Any remaining gaps must be resolved through disclosed application-stage evidence rather than reliance upon later pre-construction checks.

Barbastelle roost networks and functional habitat

The Applicant's bat activity surveys are extensive and establish national importance, but that conclusion makes the remaining gaps more significant, not less.

Acoustic activity data demonstrate widespread use but do not, by themselves, fully identify:

- the individuals or colonies using each part of the Scheme;
- the hierarchy of commuting routes;
- seasonal switching between roosts;
- the relationship between maternity colonies and satellite day or night roosts;
- the location and use of winter roosts or hibernacula;
- the consequences of severing individual routes within an overlapping colony landscape.

The Norfolk Barbastelle Study Group has called for further survey and radio-tracking to establish the distribution and habitat use of maternity colonies more fully. Its evidence identifies known, newly confirmed and predicted colony locations and warns that additional woods remain insufficiently assessed. The Applicant's own activity report accepts that static detections within species emergence windows may indicate roosting resources close to survey locations and that bats are mobile animals whose full movement patterns cannot be captured through acoustic survey alone.

That is a material limitation where the Scheme would introduce repeated hedgerow gaps, fencing, lighting, road works, substations and construction activity across the whole functional landscape.

The evidence establishes widespread barbastelle presence, but does not yet map with sufficient certainty the colony-specific routes and resources that must be preserved to maintain ecological function and favourable conservation status.

Trees and roosting potential

The arboricultural and tree evidence also remains insufficiently integrated with the bat assessment. The South Norfolk Tree Warden Network identifies hundreds of trees with potential roost features and warns that a preliminary arboricultural assessment does not establish the effects of final access arrangements, construction traffic, root-zone incursions, soil compaction, trenching and altered hydrology.

Tree damage may not be immediately visible. Root severance, compression, waterlogging, drying or gradual decline may manifest years after construction. For bats, this matters because a tree shown as 'retained' in a plan may still lose roost suitability or become isolated from the dark, connected habitat upon which its ecological function depends.

The ecological baseline must therefore assess trees not merely as retained or removed landscape features, but as potential elements of a wider roost and commuting network.

Great crested newt, water vole, otter, badger and other species

The network of ponds, ghost ponds, ditches, streams, hedgerows and field margins provides potential habitat for great crested newt, water vole, otter, reptiles, badger, brown hare, hedgehog and terrestrial invertebrates. Earlier BEPS objections identified incomplete or deferred survey work for great crested newt and other species, including concern that some work was not conducted at the advised seasonal stage.

The issue is not that every species must be present at every location. It is that the Applicant has selected an extensive and connected habitat network and then relied in part on future pre-construction surveys and method statements. Those later checks cannot substitute for the information required now to determine:

- whether the chosen layout is acceptable;
- whether avoidance remains possible;
- whether protected-species licensing is likely;
- whether the residual-effect conclusions are robust;
- whether cumulative effects have been properly assessed.

Pre-construction surveys have a legitimate role in updating a valid baseline and identifying recent change. They should not be used to establish for the first time whether a receptor exists or whether the authorised design is capable of avoiding significant harm.

8.4.3 Aquatic assessment limitations and dry-condition bias

The aquatic baseline remains materially limited for a development extending across two connected catchment systems and involving numerous watercourse crossings, cable works, drainage alterations and potential pollutant pathways.

The Applicant's aquatic work was principally habitat-led. It relied upon walkover observations, desk-study data and inference from habitat condition and known records at connected locations. It was not a comprehensive programme of targeted species and community sampling throughout the affected aquatic network. That distinction is now expressly acknowledged in the Applicant's September 2026 Position Statement on White-Clawed Crayfish, which confirms that the aquatic surveys were habitat-suitability assessments rather than targeted presence/absence surveys using methods such as manual searching, hand-netting, night searching, trapping or eDNA. EN0110014-000572-8.5 Applicant'...

That does not make the surveys without value. Habitat-suitability assessment can provide relevant information about substrate, bank structure, refugia, hydrological permanence and potential impact pathways. The difficulty is that the limitations of that evidence must be recognised when conclusions are reached about the ecological value and connectivity of the wider network.

Survey conditions

The Applicant now expressly accepts that its original aquatic surveys were undertaken during unusually dry conditions and that the wetted extent, depth and in-channel habitat availability observed may therefore have under-represented typical conditions, particularly in ephemeral headwaters and field ditches. EN0110014-000572-8.5 Applicant'...

The Applicant argues that this does not materially undermine its habitat-suitability conclusions for white-clawed crayfish because important physical habitat features, including coarse substrate, stable refugia, root systems and persistent undercut banks, would remain identifiable notwithstanding low water levels. It also relies upon fine sediment, limited structural complexity, poor hydrological permanence and terrestrial succession as evidence that much of the ditch network is of low suitability. EN0110014-000572-8.5 Applicant'...

BEPS does not suggest that dry conditions automatically invalidate every habitat observation. The narrower concern is that dry-weather survey may underestimate the ecological and hydrological function of features whose importance is seasonal.

In the South Norfolk Claylands, ditches, tributaries, headwaters and ponds may form a more connected network during wetter periods. A feature recorded as dry or only weakly flowing during survey may nevertheless:

- convey sediment and pollutants during rainfall;
- provide seasonal aquatic or amphibian habitat;
- connect ponds, ditches and streams;
- support aquatic or semi-aquatic invertebrates adapted to variable flows;
- form part of groundwater recharge or discharge pathways;

- operate as a temporary headwater or refuge;
- and transmit construction effects downstream during wet conditions.

The survey limitation is therefore relevant not only to whether a particular dry ditch provides permanent crayfish habitat, but to whether the Scheme's ecological and pollution pathways have been characterised adequately under representative conditions.

The Applicant's revised position on white-clawed crayfish

The Applicant's September 2026 position materially changes the basis of the white-clawed-crayfish assessment.

The submitted ES originally relied in part upon the absence of records within the desk-study search area and referred to a single record approximately six kilometres downstream. The Applicant has now considered the information identified by BEPS concerning records from the River Tas at Saxlingham Thorpe and expressly states that it no longer relies upon the absence of records identified through the original desk study as evidence that white-clawed crayfish are absent from the wider River Tas catchment. EN0110014-000572-8.5 Applicant'...

Instead, the Applicant now assumes potential presence within the River Tas and other hydrologically connected suitable habitat on a precautionary basis. Its case is therefore no longer that the species has been demonstrated to be absent. Its case is that significant effects are not anticipated because the relevant pathways of harm are avoided or controlled through the Scheme design and secured mitigation. EN0110014-000572-8.5 Applicant'...

That is an important clarification and narrows the dispute.

BEPS does not contend that targeted presence/absence survey must invariably be undertaken where an applicant has genuinely assumed presence and assessed the relevant effects precautionarily. A precautionary assessment may in principle be sufficient if:

- the relevant receptors and connected habitats have been identified;
- every credible pathway of effect has been assessed;
- avoidance and mitigation measures are sufficiently defined;
- those measures are effective for the full authorised envelope;
- and the controls are legally secured before consent is granted.

The examination issue is therefore whether East Pye satisfies those conditions.

Reliance upon avoidance and embedded mitigation

The Applicant identifies the River Tas and Hempnall Beck as the principal sensitive aquatic receptors and states that both are designated as Avoidance Areas. It relies upon trenchless crossing methods, minimum stand-offs, launch and reception pits outside sensitive watercourse corridors, pollution prevention, sediment control and biosecurity measures, together with the Outline CEMP, OEMP, DEMP and Protected Species Mitigation Strategy. EN0110014-000572-8.5 Applicant'...

Those measures are relevant and potentially important.

However, protection of the riverbed and banks at an individual crossing does not by itself demonstrate that all indirect pathways from the authorised development have been controlled.

The Scheme extends across a much wider hydrological network. Potential pathways include:

- exposed soil and sediment mobilisation;
- runoff from access roads, haul routes and compounds;
- concrete and cementitious materials;
- fuels, oils and other chemicals;
- trenching and cable installation;
- preferential flow along cable trenches;
- groundwater interception and dewatering;
- altered drainage patterns;
- HDD drilling-fluid loss or other crossing failure;
- watercourse and ditch works;
- contaminated firewater;
- accidental pollution incidents;
- and biosecurity failures capable of transmitting crayfish plague or invasive species.

The relevant ecological question is therefore not confined to whether the Applicant directly excavates the bed of the River Tas or Hempnall Beck. It is whether construction and operation elsewhere within the connected catchment could generate effects capable of reaching those receptors or associated habitat.

The Applicant's precautionary assumption of presence increases the importance of that pathway assessment. Once potential presence is assumed, the conclusion of no significant effect depends upon demonstrating that the pathways capable of affecting that population are either absent or effectively controlled.

Reliance on inference and hydrological connectivity

The Applicant's aquatic assessment uses existing Environment Agency and other data from connected watercourses to infer likely ecological conditions where direct survey data are limited. That can be a reasonable precautionary approach. However, the same hydrological connectivity relied upon to infer ecological conditions must also be reflected when assessing effects.

It would be inconsistent to rely upon connection within the River Tas system when identifying the possible ecological community, but then assess sediment, pollution, altered flow or disease pathways only within a narrow survey reach or crossing location.

The relevant Zone of Influence follows the credible pathway of effect. For East Pye, that may extend through ditches, tributaries, groundwater pathways and downstream watercourses beyond the immediate footprint of individual works.

Absence of direct aquatic-community sampling

There remains no comprehensive programme of direct aquatic macroinvertebrate or other community sampling across the affected network. That limits the ability to establish:

- existing community composition;
- pollution-sensitive taxa;
- seasonal differences in ecological condition;
- baseline variation between connected reaches;
- aquatic prey availability for bats and birds;
- and the extent to which future change could be distinguished from natural variability.

This is relevant beyond white-clawed crayfish. The Environment Agency has raised wider aquatic-ecology issues, including fish, European eel, macroinvertebrates, water quality and the potential interaction between solar panels and aquatic insect lifecycles. The adequacy of the aquatic baseline must therefore be considered across the full receptor network rather than reduced to the question of whether white-clawed crayfish are physically present within a particular ditch.

Without a sufficiently robust baseline, post-construction monitoring may also have limited value because it may be difficult to determine whether observed ecological changes arise from the Scheme or from pre-existing natural variation.

Further survey and the 2026 drought

The Applicant confirms that no further targeted white-clawed-crayfish surveys were undertaken in 2026 and that none is presently proposed. It explains that the continuing drought would have produced conditions even less representative than those recorded during the original surveys and considers that further presence/absence work would not materially alter its assessment because potential presence is already assumed and the relevant impact pathways are said to be avoided or controlled.

BEPS accepts that additional survey undertaken in exceptionally dry conditions would not necessarily provide a more representative aquatic baseline. However, Norfolk Rivers Trust has since surveyed the Tas in September 2026 and again found white-clawed crayfish within 2km of the order limits.

Where the species is assumed present and representative seasonal survey by the applicant is not available, the assessment should demonstrate with particular clarity that:

- all connected receptors have been identified;
- all credible construction and operational pathways have been considered;
- the proposed avoidance areas are sufficiently extensive;
- indirect effects outside the immediate crossing locations are controlled;
- biosecurity measures are specific and enforceable;
- and the DCO controls prevent detailed design from introducing new pathways after consent.

Catchment-scale assessment remains necessary

The River Tas, Hempnall Beck, Broome Beck, Starston Brook and their associated ditch systems are not isolated receptors. They form connected surface-water and groundwater networks through which effects may propagate.

The Applicant's September 2026 position narrows the white-clawed-crayfish dispute but does not remove the need for catchment-scale assessment. The Applicant accepts potential presence in the wider River Tas system but concludes that significant effects are not anticipated because the principal receptors are avoided and indirect pathways will be controlled.

The central question for the Examination is therefore whether that conclusion has been demonstrated across the whole authorised Scheme.

In particular, the assessment must establish whether the combined effects of trenching, access works, drainage changes, temporary compounds, soil disturbance, HDD, dewatering, runoff, sediment generation and accidental pollution could create pathways extending beyond the immediate watercourse crossings.

The same issue applies cumulatively. A series of individually minor works distributed through a connected catchment may produce a materially different ecological risk from a single isolated crossing.

Conclusion

The Applicant has now appropriately moved away from relying upon an absence of desk-study records as evidence that white-clawed crayfish are absent from the wider River Tas catchment and instead assumes potential presence on a precautionary basis. That is a material improvement in the assessment position. It does not, however, resolve the wider aquatic-baseline issue.

The original survey was undertaken during unusually dry conditions; direct species and aquatic-community sampling remains limited; seasonal connectivity may have been under-represented; and the Scheme introduces numerous potential sediment, pollution, drainage, groundwater and biosecurity pathways throughout a connected catchment.

The appropriate examination question is therefore no longer simply whether a further crayfish presence/absence survey should be undertaken. It is whether the precautionary assessment is sufficiently complete to demonstrate that all credible pathways to assumed sensitive receptors have been identified and effectively controlled.

On the evidence presently available, BEPS submits that this has not yet been demonstrated with sufficient robustness. The Applicant's conclusion of no significant aquatic effect now depends materially upon the completeness of the catchment-scale pathway assessment and the certainty, effectiveness and enforceability of the avoidance and mitigation measures relied upon. Those matters should be resolved before the ExA reaches its conclusions on aquatic ecology and the water environment.

8.4.4 Failure to identify and incorporate local and specialist evidence

An Environmental Statement must present an accurate and sufficiently complete account of the baseline. The Applicant is not entitled to disregard relevant ecological information merely because it lies outside a selected search radius, has been supplied by local experts or was not initially returned by a commercial record search.

Local and specialist evidence is especially important for species that are under-recorded, difficult to survey or geographically restricted. The Applicant's own bat report acknowledges that absence of records does not demonstrate absence and may reflect under-recording. The same principle applies to botany, crayfish, wintering birds, roost trees and seasonal aquatic habitats.

White-clawed crayfish in the River Tas

The clearest example is the River Tas white-clawed crayfish evidence.

The Applicant's aquatic appendix stated that the data search did not return records of white-clawed crayfish within the two-kilometre search area. However, the evidence now before the Examination records:

- Environment Agency confirmation of a white-clawed crayfish found in 2020;
- a Norfolk Rivers Trust survey in October 2020 finding two juveniles, confirming breeding;
- a 2021 hand and eDNA survey finding three white-clawed crayfish;
- a further Norfolk Rivers Trust survey in 2022 reconfirming presence;
- a further Norfolk Rivers Trust survey in September 2026 reconfirming presence;
- habitat-enhancement work near the known population;
- records of river lamprey and native brown trout from the same system;
- evidence that the information was available from public and specialist sources and was supplied to the Applicant before submission.

The evidence summary states that the breeding population lies within two kilometres of part of the Scheme and that the Applicant's statement conflicts with information available from the Environment Agency, Norfolk Rivers Trust (Appendix C), Norfolk Crayfish Group and local documented evidence (Appendix D).

This is not simply a dispute over the appropriate interpretation of a record. It is a material baseline inconsistency involving a protected and priority species in a hydrologically connected chalk-stream system. The presence of juveniles is particularly significant because it establishes breeding rather than a single transient observation. Repeated confirmation in 2020, 2021, 2022 and 2026 indicates continuing use of the River Tas. The record also bears directly on:

- receptor value;
- survey scope;
- water-quality sensitivity;
- biosecurity and crayfish-plague risk;

- sediment and pollution pathways;
- the Zone of Influence;
- mitigation and monitoring requirements.

The failure to identify or incorporate that evidence undermines confidence in the wider desktop study. It also undermines the community's trust in East Pye Solar's genuine concern for local ecology.

Botanical evidence
The same concern arises in relation to the Level 6 botanist's advice. Specialist evidence was provided that the area supports important botanical assemblages and that full-season survey was required. The Applicant's broad habitat survey did not resolve that concern.

Local botanical evidence should not be dismissed merely because particular species are absent from the Applicant's desk-study return. Local survey results are in the possession of ecologists and have not been uploaded to NBIS, meaning that the online record is only a fraction of the local knowledge available. That is the reason targeted seasonal survey was requested by the local specialist botanist.

Barbastelle specialist evidence
The Norfolk Barbastelle Study Group has supplied specialist knowledge derived from long-term local survey, colony identification and radio-tracking. That work identifies known and potential maternity colonies and demonstrates the importance of connected woodland, hedgerows and agricultural mosaics.

Norfolk Barbastelle Study Group evidence and need for further colony and habitat-use surveys

The report Barbastelle Maternity Colonies in the East Pye Solar Scheme Area at December 2025 was prepared by Jane Harris on the basis of work by the Norfolk Barbastelle Study Group, a specialist group within the Norfolk and Norwich Bat Group. It provides new field evidence concerning maternity colonies and woodland use within and around the East Pye Order Limits.

The report describes the South Norfolk Claylands as an arable but structurally diverse landscape containing scattered woodlands, high hedges, pollarded trees, open fields and commons. Those features collectively provide roosting habitat, feeding resources and landscape connectivity sufficient to support a barbastelle metapopulation. The ecological receptor is therefore not confined to individual woodland roosts. It includes the connected woodland, hedgerow and open-land mosaic used by maternity colonies.

The report applies a six-kilometre Core Sustenance Zone around each maternity colony. It records that the CSZs of six colonies lie within or abut the East Pye Scheme area. Two colonies are beside the proposed cable route, and one of those would also be surrounded by solar arrays. It further

notes that other woodlands along the Scheme, particularly towards its eastern end, had not yet been surveyed for barbastelle maternity colonies.

The Study Group's 2025 work examined Spring Wood at Hempnall Green, Little Wood near Shotesham, the eastern and western sections of Brooke Wood, Lower Spring Wood and Round Wood. The selected woodlands lay immediately beside or approximately 100–400 metres from the Scheme. They included County Wildlife Sites, a component of the Shotesham–Woodton Hornbeam Woods SSSI and conifer plantations containing mature broadleaved compartments.

The investigation combined:

- winter assessment of potential roost features;
- acoustic monitoring during the pre-parturition or maternity period;
- trapping and radiotracking where access and woodland structure allowed; and
- emergence counts to estimate colony size.

The roost-potential assessment looked specifically for features associated with barbastelle, including loose or lifted bark, bark collars and slabs, splits, cracks and fissures, together with damaged, dying or dead trees. All surveyed woodlands contained suitable roost features. Little Wood was assessed as having high barbastelle roost potential, while Spring Wood, both sections of Brooke Wood, Lower Spring Wood and Round Wood were assessed as moderate.

The acoustic results produced evidence requiring further investigation. At Little Wood, barbastelle activity repeatedly exceeded the threshold used by the Study Group to predict a maternity colony. At Brooke Wood East, the maternity-colony threshold was reached on four nights, with a peak of 15 passes in the hour after sunset. At Lower Spring Wood, the threshold was exceeded on two nights. Barbastelles were also recorded in Spring Wood, although the evidence there was less conclusive, and in Round Wood at lower levels.

The prediction for Little Wood was subsequently confirmed through radiotracking under a Natural England project licence. Three female barbastelles were captured during a pre-parturition trapping session, two of which were assessed as pregnant and fitted with transmitters. Both used a roost in a tall, living but leaning ash whose twisted trunk had produced split and lifted bark. Emergence counts reached 36 before parturition. The report estimates that the post-parturition colony could comprise approximately 55 bats, which it describes as large in the context of known Norfolk maternity colonies.

This finding has wider implications for the Applicant's woodland assessment. The confirmed maternity roost was not dependent on a conventional hole or cavity in a visually intact veteran oak. It occurred beneath split and lifted bark in an ageing ash. The report explains that ash dieback is generating roost features in South Norfolk woodland and that the importance of ash woods as a barbastelle roost resource may therefore increase. Ash woodland should not be discounted because of poor tree condition or the prospect of future decline.

The surveys also show that small stands of mature broadleaved trees embedded within predominantly coniferous plantations may support maternity colonies. The mature oak belt in Brooke Wood generated acoustic evidence predicting a colony, notwithstanding the wider

plantation context. The Study Group expressly cautions that conifer plantations should not be dismissed without detailed assessment where mature broadleaved compartments and suitable bark or fissure features remain.

For Spring Wood at Hempnall Green, the report does not claim confirmation of a maternity colony. Trapping was constrained by the absence of suitable rides near the mature oak belt and by limited access. However, the timing of recorded calls, the capture results and previous acoustic evidence were considered sufficient to confirm that barbastelles roost and feed within the woodland. The precise roost status remains unresolved. This is a survey limitation requiring further work, not evidence of absence.

The Study Group's evidence therefore materially changes the assessment context. It confirms a previously unverified maternity colony, predicts further colonies and shows that apparently secondary woodland compartments may form part of the maternity-roost resource. The East Pye assessment cannot safely assume that only previously known or conventionally high-value ancient woodland blocks require maternity-colony investigation.

Required further barbastelle surveys

The report expressly calls for further radiotracking to confirm whether maternity colonies are present in:

- Brooke Wood;
- Lower Spring Wood; and
- Spring Wood at Hempnall Green.

It also states that other woodlands within or close to the Scheme should be assessed regardless of size. The candidate sites identified by the Study Group include:

- Hempnall Little Wood;
- Winters Grove;
- Ringers Grove;
- Tindall Wood;
- Sexton Wood;
- Hedenham Wood;
- Park Plantation; and
- the numerous smaller scattered woods to the east and west of Hempnall.

Saxlingham Grove is identified as already supporting a maternity colony. Ringers Grove is singled out because it is an ash wood of a similar age to Lower Spring Wood, while Tindall Wood, Sexton Wood, Hedenham Wood and Park Plantation are located towards the eastern end of the Scheme, where survey coverage remained incomplete.

The further work should not end once maternity roost trees have been located. The Study Group concludes that the effects of East Pye cannot be assessed properly without a full understanding of barbastelle distribution and habitat use within the Scheme area. In EIA terms, that requires survey evidence capable of establishing:

- the complete distribution of confirmed and probable maternity colonies;
- the woodland compartments and tree types used for roosting;
- the relationship between alternative roosts used by each colony;
- principal foraging areas;
- commuting routes between woods and feeding habitats;
- the use of hedgerows, tree lines, ponds, watercourses and woodland edges;
- the areas of overlap between the Scheme and the six-kilometre CSZs;
- and the effects of cable routes, access works, panel arrays, substations, fencing and lighting upon that functional network.

Radiotracking is particularly important because static acoustic detectors can establish activity and support a prediction of nearby roosting, but cannot by themselves identify the full movement network, the particular maternity colony using a route or the relative importance of different fields and linear features. Acoustic monitoring remains useful for screening additional woods, but probable colonies identified acoustically should then be tested through appropriately licensed trapping and radiotracking.

The survey programme should also be designed around the limitations encountered in 2025. Lack of rides or convenient trapping locations should not be treated as proof that a colony is absent. Alternative detector positioning, longer deployment, additional access arrangements and suitable licensed methods should be considered where woodland structure makes conventional trapping difficult.

These surveys are necessary before the Applicant can establish the reasonable worst-case effect of:

- repeated hedgerow severance;
- lighting of otherwise dark routes;
- noise and vibration near maternity woods;
- panel development surrounding a colony-support area;
- cable and haul-road works beside colonies;
- and cumulative loss or compression of foraging habitat within overlapping CSZs.

Later pre-construction checks would not provide an adequate substitute. By that point, the principal development areas, access routes and cable alignments may have been authorised. The purpose of the further work must be to inform avoidance and design, including removal or relocation of development from the most important maternity-colony support landscapes.

The Study Group's evidence therefore supports a clear conclusion: the known maternity-colony baseline has expanded, additional colonies are predicted, several candidate woodlands remain unassessed and the functional habitat use of overlapping colonies has not yet been mapped comprehensively. Until that work is complete, the Applicant cannot demonstrate that the proposed mitigation will maintain the integrity and connectivity of the South Norfolk barbastelle metapopulation.

The Applicant did use some NBSG information in its desk study, but the Study Group's call for further work remains material. Where the specialist body concludes that the maternity-colony landscape is not yet fully understood, the Applicant cannot rely solely on its acoustic survey to assert that generic buffers and retained hedges will preserve function.

8.4.5 Consequences for the Environmental Statement

These baseline defects affect the whole of the ecology case.

They undermine:

- the valuation of receptors;
- the assessment of magnitude and significance;
- the delineation of the Zone of Influence;
- the alternatives and design process;
- the ability to demonstrate avoidance;
- the formulation of species-specific mitigation;
- the BNG baseline and claimed gains;
- the HRA screening conclusions;
- the assessment of EPS licensing prospects;
- the cumulative-effects assessment;
- the enforceability and effectiveness of the OLEMP and protected-species strategies.

The Applicant may argue that later surveys can inform detailed design or licensing. That does not answer the present objection. Later surveys can update a sufficiently complete baseline; they cannot lawfully cure a situation in which the Examining Authority is being asked to approve the principle, parameters and compulsory powers of the development without knowing the full ecological resource or whether avoidance is possible. Several of the outstanding ecological matters are not questions of detailed design but questions of environmental knowledge. The Applicant still lacks, or has only recently begun to obtain or supplement, important information concerning botany, aquatic ecology and the functional use of the landscape by protected species. Those matters are capable of determining where development can safely occur, what avoidance is required, what mitigation is feasible and whether the authorised development can remain within the effects assessed. They therefore go to the environmental acceptability of the authorised envelope itself, not merely to its later implementation.

The appropriate sequence is:

- identify the receptors and ecological functions;
- establish their value and sensitivity;
- define the full Zone of Influence;
- redesign to avoid harm;
- assess the residual effects;
- specify and secure mitigation;

- consider compensation only as a last resort.

East Pye Solar has not completed that sequence. In several important respects, it has fixed the development envelope and deferred the information required to determine whether that envelope is ecologically acceptable.

BEPS therefore submits that the ecological baseline is not sufficiently complete, accurate or reliable to support the Applicant's conclusions of limited residual effect. Until the botanical, species, aquatic and functional gaps are remedied and all relevant specialist evidence is incorporated into a revised assessment, the Examining Authority cannot safely conclude that likely significant ecological effects have been identified, avoided or adequately mitigated.

Strategic Ecological Network Conflict
The Norfolk Green Infrastructure Map (NBIS, 2017) and the South Norfolk Ecological Network identify the application area as forming part of a connected landscape of Strategic GI Corridors, woodland core areas, wetland cores (including the River Tas chalk stream system), and grassland/heath cores. The East Pye Solar red line boundary and Cable Route Corridor intersect and fragment these corridors at multiple points.

The scheme is not located in an ecologically degraded or isolated landscape; it sits within an identified strategic connectivity network intended to maintain habitat permeability across South Norfolk. Industrialisation of this landscape through panel arrays, fencing, security lighting, internal roads, substations and cable corridors would:

- Sever functional habitat linkages between woodland blocks (including known barbastelle maternity areas);
- Disrupt hydrological connectivity between agricultural land and chalk stream corridors;
- Fragment grassland and farmland bird territories;
- Introduce hard barriers across mapped GI corridors contrary to the ecological network approach embedded in national and local policy.

The ES does not assess fragmentation of the Strategic GI network as a discrete impact. There is no landscape-scale connectivity analysis, no permeability modelling, and no assessment of cumulative corridor compression with other NSIP solar and grid infrastructure in the area.

In these circumstances, the scheme conflicts with the established South Norfolk ecological network framework and fails to demonstrate compliance with NPS EN-1 (2023) requirements to avoid significant harm to biodiversity and maintain ecological coherence.

8.4.6 Barbastelle Bats

Where a proposed NSIP is located wholly within overlapping Core Sustenance Zones for barbastelle bats and directly adjacent to multiple ancient woodlands supporting maternity

colonies, the impacts of construction disturbance, habitat fragmentation, lighting, noise and long-term landscape disruption are **intrinsic to the scheme** and **cannot be reduced to a level that avoids adverse effects on the local barbastelle population's favourable conservation status**.

As such, the effects are **not capable of mitigation**, and the scheme is fundamentally incompatible with the Habitats Regulations.

8.5 Nationally important bat assemblage and barbastelle maternity-colony landscape

The Applicant's bat evidence is one of the most consequential parts of the Environmental Statement. It does not describe a landscape of merely moderate value in which bats make occasional use of retained boundaries. It identifies a diverse bat assemblage of national importance, widespread and unusually high activity across the Order Limits, and scheme-wide use by barbastelle, one of the rarest and most conservation-sensitive British bats.

That finding must govern the assessment of the Scheme. It is not consistent to assign national importance to the bat assemblage and then assess the effects of industrialising the same landscape principally by reference to the retention of individual hedgerows, woodland buffers and future habitat enhancement. The issue is whether the Scheme would preserve the functional relationships between maternity roosts, satellite roosts, woodland, wetland, hedgerows, field margins and dark commuting routes across the whole landscape.

The evidence does not presently establish that it would.

8.5.1 The Applicant's finding of national importance

The Bat Activity Survey Report evaluated the bat assemblage using the geographic framework in the UK Bat Mitigation Guidelines. The Applicant recorded eleven bat species during the combined survey programme, together with calls identified to broader species groups. Those records included common and soprano pipistrelle, brown long-eared bat, noctule, Natterer's bat, Daubenton's bat, serotine, Leisler's bat, Nathusius' pipistrelle, whiskered bat and barbastelle.

The Applicant calculated an assemblage score of 22 against a maximum possible regional score of 28. That represents 78% of the maximum and exceeds the 70% threshold used by the Applicant to identify an assemblage of national importance. It accordingly concluded that the Order Limits support habitats of up to national-level importance for commuting and foraging bats.

This is a significant admission. The national value does not arise from one woodland, one roost tree or one unusually active detector. The Applicant records between seven and ten species at each detector location, with activity distributed across the Scheme. The conclusion therefore concerns the landscape as a whole.

The Applicant also states that the recorded activity was greater than would ordinarily be expected from habitats it had classified as being of only moderate quality. That apparent tension should not be resolved by downgrading the bats. It shows that broad habitat classification has failed to

capture the functional value of the South Norfolk Claylands network. Arable fields considered individually may appear commonplace, but their value changes where they are interwoven with mature hedges, woodland edges, ponds, streams, wet corridors and multiple maternity colonies.

The proper conclusion is therefore that the ecological value of the Order Limits is expressed through landscape function rather than habitat labels alone. The very features affected by the Scheme—field boundaries, dark lanes, woodland edges, margins and watercourses—combine to support a nationally important assemblage.

8.5.2 Barbastelle abundance, distribution and significance

Barbastelle is central to that national-importance conclusion. It is a rare, woodland-associated, light-averse bat protected as a European Protected Species and listed in Annex II of the Habitats Directive. It depends upon a network of roosts and extensive, connected foraging habitat rather than a single fixed roost feature.

The Applicant's static detectors recorded 11,699 barbastelle passes during the combined survey period. Barbastelle was the third most frequently recorded species, after common and soprano pipistrelle, with a reported mean Bat Activity Index of 23.12 passes per hour. The Applicant itself describes this as indicating high use of the Order Limits.

The percentage of all calls attributable to barbastelle should not be misunderstood. Common pipistrelles are among the most abundant bats in Britain, whereas barbastelles are rare and more restricted. The Applicant expressly acknowledges that activity figures must be interpreted in the context of species rarity and that lower absolute numbers for barbastelle may carry much greater ecological significance than similar numbers for common species.

Most importantly, barbastelle was recorded at every static detector location across the Order Limits. The detections extended across all principal development areas, including the BESS and substation landscape, Sites 1 to 10 and the intervening field-boundary network. Barbastelle was also encountered on thirteen of the sixteen night-time walkover routes across the combined annual survey period.

This distribution is not consistent with a small number of isolated bats occasionally crossing the Scheme. It demonstrates landscape-scale use.

The activity data include several locations with very substantial numbers of barbastelle passes, including:

- approximately 1,395 passes at the detector in Sub-Site 2B;
- approximately 1,362 passes at Site 3;
- approximately 1,170 passes around 7F/7G;
- approximately 1,119 passes at 10B;
- approximately 806 passes at 7C;
- and hundreds of further passes at numerous other locations.

The precise figures require care because an acoustic pass does not represent a unique individual. However, that limitation does not reduce the importance of the distribution. Repeated detections over several months and across the full extent of the Order Limits establish sustained and widespread habitat use.

The Applicant also recorded barbastelles within the expected emergence window at several locations, including areas associated with 7H, Site 3 and 7C. It acknowledges that these records may indicate roosting features within or immediately adjacent to the affected landscape. That raises the possibility of additional day, night or satellite roosts supporting the known maternity populations.

The Applicant's own conclusion is therefore unavoidable: barbastelle activity throughout the Order Limits is high, ubiquitous and ecologically significant.

8.5.3 Multiple maternity colonies and overlapping Core Sustenance Zones

The Scheme lies within an exceptional concentration of barbastelle maternity-colony habitat.

The Applicant's desk study records information from the Norfolk Barbastelle Study Group concerning multiple maternity colonies whose Core Sustenance Zones overlap the Order Limits. Known colonies identified in the Applicant's material include:

- Saxlingham Grove;
- Spring Wood;
- Little Wood;
- Brooke Wood;
- Tyrrells Wood;
- Smockmill Common;
- Gawdy Hall Woods;
- Tacolneston;
- and Earsham Woods.

The Applicant states that the Order Limits lie within the published six-kilometre Core Sustenance Zones of nine known colonies and that the combined zones associated with several of the closest colonies cover the entire Scheme. The colony network therefore extends far beyond the formal boundary of any single woodland.

The Norfolk Barbastelle Study Group's evidence makes the position still more important. Its work identified a newly confirmed maternity colony at Little Wood near Shotesham and indicated that further maternity colonies were likely at Brooke Wood and Lower Spring Wood. Updated radiotracking in 2025 confirmed the Little Wood colony, with a pre-parturition emergence count of approximately 36 bats and an estimated larger post-parturition population. The Study Group's mapping shows that the six-kilometre Core Sustenance Zones of at least six known maternity colonies lie within or abut the Scheme area.

Core Sustenance Zones are not exclusion zones in themselves, but they identify the landscape within which maternity colonies are expected to obtain the resources necessary to persist. Within

that landscape, the importance of any individual field cannot be understood solely by the number of calls recorded there on a limited number of nights. Maternity colonies use networks of woodland roosts, switch between trees, travel along hedges and streams and exploit changing concentrations of insect prey across the season.

The Applicant's own review of Norfolk barbastelle ecology states that tracked maternity-colony bats travel an average of approximately 3.5 kilometres from their woodland roosts and that the most intensively studied individuals did not travel beyond approximately 5.5 kilometres. It describes woodland as both roosting and foraging habitat and identifies surrounding arable mosaics, particularly those containing linear features, as important foraging landscapes. These figures explain why the whole East Pye landscape, rather than simply the woodland containing each roost tree, must be assessed as functional habitat.

The effect of multiple overlapping zones is also cumulative. A hedge, stream corridor or woodland edge may be used by bats from more than one colony. Damage to such a feature may therefore affect connectivity within a wider metapopulation network rather than a single local roost.

No colony-by-colony functional analysis has been supplied showing:

- which colonies use each part of the Order Limits;
- the principal and secondary flight routes;
- seasonal differences in habitat use;
- the proportion of each colony's core habitat affected;
- whether bats can divert around lit or obstructed routes;
- or the cumulative consequences of repeated disturbance across overlapping zones.

In the absence of that work, the Applicant cannot demonstrate that retaining selected hedgerows and applying standard woodland buffers will maintain the ecological function of the maternity-colony landscape.

8.5.4 The Norfolk Barbastelle Study Group's call for further survey

The Norfolk Barbastelle Study Group's evidence is especially important because it is based upon long-term local expertise, colony identification, trapping and radiotracking rather than acoustic activity alone.

The Study Group concluded that the impacts of East Pye Solar cannot properly be assessed without a fuller understanding of barbastelle distribution and habitat use within the Scheme area. It identified further woodlands requiring investigation and predicted additional maternity colonies on the basis of acoustic evidence and the known structure of the local population.

Further work is needed to establish:

- the complete distribution of maternity roosts;
- use of satellite and alternative tree roosts;
- the functional relationship between the known colonies;
- principal commuting and foraging routes;

- the role of individual hedges, lanes, woodland edges and watercourses;
- seasonal and weather-related variations in use;
- and the relationship between the solar sites, cable corridors and colony home ranges.

Acoustic detectors are valuable for confirming species presence and relative activity. They cannot reliably identify the colony of origin, distinguish the number of individuals responsible for repeated passes or map the complete nightly movement of bats through a complex landscape. Radiotracking is therefore particularly important where the legal and ecological question concerns the maintenance of maternity-colony function.

The Applicant should not be permitted to treat the Study Group's work merely as contextual desk-study information while declining to undertake the functional analysis that the evidence indicates is required. The Applicant's own report accepts that bats are highly mobile, may leave survey areas quickly and cannot have all their flight paths captured through the chosen surveys.

The baseline is therefore simultaneously sufficient to establish very high sensitivity but insufficient to demonstrate that the Scheme's effects can be avoided.

That distinction is important. Incompleteness cannot be used to downgrade the receptor. The known evidence establishes national importance and widespread barbastelle use. The remaining uncertainty concerns the full scale of the impact and the adequacy of mitigation. In accordance with the precautionary approach, that uncertainty weighs against authorising development rather than in its favour.

8.5.5 SSSI and ancient-woodland maternity-roost landscape

Many of the woods supporting known or likely barbastelle colonies form part of nationally designated or irreplaceable habitat networks.

The relevant woodland landscape includes, among others:

- Saxlingham Grove within the Shotesham–Woodton Hornbeam Woods SSSI complex;
- Little Wood close to the Site 7 and Site 8 landscape;
- Spring Wood adjacent to Site 3;
- Hempnall Little Wood;
- Hedenham Wood SSSI close to Site 10;
- Brooke Wood;
- Tyrrells Wood;
- and other ancient and semi-natural woodland blocks connected by hedges, streams and lanes.

The Applicant records the Saxlingham Grove maternity colony very close to the Order Limits. Historic records include peak emergence counts of up to 30 bats from roosts in ash and oak trees, further counts from a dead oak, and the discovery of a lactating female. The woodland shares boundaries with parts of the proposed development landscape.

The fact that bats may not be named in every SSSI citation does not make their use of those woods irrelevant. A SSSI citation records the notified interest features for which the site was designated; it does not exhaust the site's ecological value. Where nationally important protected-species populations use the woodland and depend upon its surrounding habitat network, effects on that use remain material to the ecological assessment, the planning balance and protected-species law.

The Forestry Commission identifies six ancient woodlands directly adjacent to the Scheme:

- Saxlingham Grove;
- Doyly's Grove;
- Popes Wood;
- Spring Wood;
- Little Wood;
- and Ringers Grove.

It warns that fragmentation is one of the greatest threats to ancient woodland and expresses particular concern about the isolation of Doyly's Grove and the near-enclosure of Ringers Grove. That concern is directly relevant to bats. Woodland does not provide equivalent ecological function where it is retained as an island inside a fenced, lit and operational energy development but separated from its former dark, permeable surroundings.

The relevant indirect effects include:

- loss or interruption of dark flight routes;
- artificial lighting at woodland edges;
- construction noise and vibration;
- increased vehicle movements;
- dust and changes to air quality;
- altered drainage and groundwater conditions;
- loss of insect-rich margins;
- security fencing and access infrastructure;
- and the cumulative enclosure of woodland by panel arrays.

Standard buffer distances do not demonstrate that these processes will be avoided. A buffer may protect roots or prevent direct excavation, but it does not by itself preserve the broader ecological setting, colony connectivity or the darkness and prey resources required by barbastelles.

Natural England's own Relevant Representation identifies protected-species licensing as an unresolved amber matter and advises that the need for licences should be clarified at the earliest opportunity. It also identifies several SSSIs and ancient woodlands that are hydrologically linked to the Order Limits and states that the measures relied upon to protect designated sites must be secured.

Although Natural England is presently broadly satisfied with the Applicant's designated-site conclusions, that position is expressly conditional upon mitigation being followed and secured. It

does not answer the separate scheme-wide question of whether the barbastelle maternity-colony network, including supporting habitat outside designated boundaries, will remain functional.

8.5.6 Hibernacula, satellite roosts and year-round habitat function

The ecological assessment should not be confined to summer maternity activity.

Barbastelles use numerous tree roosts and may switch roost frequently. The Applicant's report acknowledges that woodland populations use a network of roost sites and that barns may also be important outside the maternity period. It records evidence that Norfolk barbastelles remain active in winter and frequently use woodland rather than relying principally upon conventional underground hibernation sites.

The wider Scheme landscape also contains purpose-built bat hibernacula in former Second World War structures adjoining Spring Wood and the Site 3 landscape. The former airfield bomb shelters or bunkers were adapted by the Norfolk Bat Group for bat use and are reported to support a range of bat species. The known presence of these structures adds a further year-round function to the local bat network.

Even where the Scheme does not directly destroy a maternity roost or hibernaculum, it may affect its functionality by altering the habitats through which bats reach it and the food resources available after emergence. The legal protection afforded to breeding sites and resting places cannot be reduced to preservation of the physical cavity alone. A retained roost may nevertheless be disturbed, obstructed or rendered less viable if:

- its emergence route is lit;
- nearby vegetation is removed;
- access to commuting corridors is severed;
- construction noise or vibration causes disturbance;
- surrounding foraging habitat is degraded;
- or repeated vehicle and human activity alters use of the site.

The Applicant has not supplied an integrated year-round assessment drawing together:

- maternity-colony use;
- satellite roosts;
- potential roost trees;
- autumn activity;
- winter activity;
- known hibernacula;
- construction noise and vibration;
- and dark-corridor connectivity.

This is especially concerning because pile driving remains within the construction envelope and is identified in the Scheme's own material as a principal source of construction noise and vibration. There is no adequate species-specific analysis of whether prolonged percussive piling, HDD, heavy

traffic and compound activity could disturb roosting or hibernating bats within the surrounding woodland and built structures.

The effect cannot safely be deferred to an Ecological Clerk of Works or a pre-construction check. Those measures may reduce the risk of immediate harm to an occupied feature, but they cannot determine whether the authorised construction methodology is compatible with the continued function of the wider roost network.

8.5.7 Natural England's favourable conservation status guidance

Natural England published its *Definition of Favourable Conservation Status for barbastelle bat* (RP2974) in March 2024. It is directly relevant to the assessment of East Pye because it identifies, at national level, the ecological conditions required for *Barbastella barbastellus* to thrive sustainably and the principal pressures preventing that outcome.

Natural England defines favourable conservation status ("FCS") as the minimum threshold at which there can be confidence that a species is thriving in England and is expected to continue to thrive sustainably in the future. It assesses three interdependent parameters: natural range and distribution; population; and the extent and quality of habitat supporting that population.

The central fact is that Natural England does **not** consider barbastelle presently to be at favourable conservation status. Its assessment records a current estimated English population of approximately 21,000–42,000 individuals but defines the favourable population as 73,000–147,000 individuals. It estimates approximately 10,435 km^2 of supporting habitat within the species' predicted English range and defines the favourable supporting-habitat requirement as approximately 11,700 km^2. Favourable status therefore requires not merely maintenance of the present position but a substantial increase in population, expansion of supporting habitat and restoration into parts of the species' historic range.

This distinction is fundamental to East Pye. The appropriate conservation context is not one in which there is ecological headroom to absorb incremental deterioration of otherwise unimportant habitat. Natural England's national objective is recovery: more barbastelles, more suitable habitat, greater connectivity and expansion of the species' range.

8.5.7.1 The ecological requirements identified by Natural England

Natural England describes barbastelle as closely associated with broadleaved woodland containing substantial numbers of veteran, dead and dying trees. The species predominantly roosts beneath loose bark and within narrow splits and cavities. It switches roosts frequently and therefore requires a large resource of alternative suitable trees rather than protection of a single identified roost tree. A colony may use as many as 50 different roosts during one summer, with roosts typically distributed over approximately 100–200 hectares and, in some recorded cases, considerably more. Females show fidelity to maternity-roost areas between years.

This has an important consequence for the assessment of East Pye. The relevant breeding resource is not simply the particular tree occupied on the night of a survey. The ecological unit is a wider

roost network containing sufficient existing and future roost features to allow repeated switching throughout the breeding season and between years.

Natural England also emphasises the scale of the species' foraging requirements. Barbastelles are specialist moth predators. They favour woodland and riparian habitats with high structural diversity, but in agricultural landscapes they also depend substantially upon woodland edges, treelines, hedgerows, field boundaries, meadows and riparian vegetation. Bats repeatedly forage along the interface between dense vegetation and open ground. Most foraging occurs within approximately 7 km of roosts, but movements exceeding 20 km have been recorded. Female home ranges are generally very large, commonly approximately 400–1,500 hectares, with much larger individual ranges also documented.

Particularly important for East Pye is Natural England's evidence that individual breeding females may use largely private foraging areas and exhibit fidelity to those areas between years. Habitat cannot therefore safely be treated as interchangeable merely because another field or new grassland exists elsewhere within a six-kilometre radius. The ecological significance of particular feeding areas and connecting routes depends upon how the colony actually uses the landscape.

Natural England further identifies barbastelle as strongly light-averse. Its national modelling found light pollution to be an important predictor of both broad-scale distribution and maternity-colony habitat suitability. Genomic evidence is cited showing that artificial lighting negatively affects connectivity between barbastelle colonies, whereas broadleaved woodland and riparian habitats facilitate gene flow. Natural England identifies increasing rural light pollution as a significant future threat because of both habitat fragmentation and effects upon the moth prey on which barbastelles depend.

The FCS definition also identifies disturbance as a relevant pressure. Barbastelles generally select roost sites away from human disturbance, and Natural England records evidence of maternity roosts being abandoned following human approach, while appropriately acknowledging that sensitivity is site-specific and that some colonies can habituate to existing activity. It nevertheless concludes that increased anthropogenic disturbance at roost sites is likely to affect populations adversely, particularly during the summer breeding period when females are rearing young.

Natural England's definition therefore describes a species dependent upon a combination of:

- numerous mature and deteriorating roost trees within extensive woodland roost networks;
- structurally diverse woodland and riparian feeding habitat;
- mature hedgerows and treelines in agricultural landscapes;
- abundant moth prey;
- extensive home ranges;
- established and connected foraging areas;
- dark landscapes;
- and low disturbance around sensitive roosting areas.

Those characteristics closely correspond with the ecological features repeatedly identified within the East Pye landscape.

8.5.7.2 Natural England identifies habitat fragmentation and artificial lighting as constraints on recovery

The FCS report is particularly significant because Natural England does not simply describe suitable habitat. It identifies what must change if barbastelles are to recover.

Natural England states that low population density and slow population growth make barbastelles particularly vulnerable to loss and fragmentation of preferred woodland habitat. It identifies the availability of suitable woodland roosting habitat as likely to be the principal factor limiting population size and distribution. It further identifies lack of broadleaved woodland and the incursion of artificial lighting which prevents landscape connectivity as limiting factors on expansion.

Its prescribed ecological direction is therefore clear. Existing and potential roost sites should be protected from disturbance and development; old-growth woodland loss should be reversed; veteran, standing dead and decaying trees should increase; broadleaved woodland should increase; wetland and woodland habitat capable of supporting high moth biomass should be restored; hedgerows and treelines should be maintained and improved; and landscape connectivity should remain free from artificial-light barriers. Natural England also states that conditions should be provided which maintain gene flow between populations.

Natural England additionally stresses the importance of finding currently undiscovered maternity colonies. It concludes that locating new colonies should be a priority because substantial areas have received insufficient advanced survey effort and because reliable information on colony distribution is necessary to understand population structure.

That is directly relevant to the Norfolk Barbastelle Study Group's evidence for East Pye. Independent survey has already identified additional maternity-colony activity beyond the baseline initially understood by the Applicant, while further woodlands remain unresolved and further radiotracking has been recommended. The national FCS guidance therefore supports, rather than diminishes, the case for completing that work before conclusions are reached about the capacity of this landscape to accommodate the Scheme.

8.5.7.3 Replacement habitat is not equivalent in the short or medium term

One of the most important passages in Natural England's FCS definition concerns the assumption that habitat loss can be offset by future woodland or roost creation.

Natural England states that new woodland is unlikely to provide sufficient natural roosting opportunities for a barbastelle colony for **perhaps 50 years or more**. Even within established woodland whose management has reduced roost opportunities, it may take **at least 30 years** of favourable management before barbastelle use increases significantly. Natural England consequently concludes that there is currently **no known proven mitigation or compensation for the loss of barbastelle woodland roosting habitat over the short to medium term**.

That evidence is directly relevant to the Applicant's reliance upon new woodland, hedgerow reinforcement, habitat creation and BNG.

A habitat metric may attribute future units to newly created woodland or hedges. That does not make those habitats functionally equivalent for barbastelles when the effect occurs. A newly planted woodland cannot supply an established network of loose bark, damaged limbs, fissures, cavities, standing deadwood and alternative tree roosts. A replanted hedgerow cannot immediately reproduce the height, density, moth biomass, shelter and route familiarity of a mature boundary used by a maternity colony.

The distinction is particularly important over the reproductive timescale of an animal. A colony cannot wait 30 or 50 years for replacement habitat to acquire the features required to replace habitat lost or functionally degraded today.

8.5.7.4 East Pye Solar against Natural England's FCS requirements

When Natural England's requirements are set against the actual East Pye development, there is a marked tension between the ecological conditions necessary for national recovery and the effects which the Scheme is capable of producing.

The Applicant itself identified at scoping stage that, in the absence of mitigation and enhancement, construction, operation and decommissioning could cause:

- habitat loss, disturbance and fragmentation;
- disturbance, displacement or mortality of wildlife;
- disturbance, damage or loss of protected-species breeding sites, hibernation sites or resting places;
- noise and visual disturbance;
- dust and other pollution;
- indirect disturbance from noise, vibration and surface-water runoff;
- and disturbance associated with plant, vehicles and workers.

The Applicant expressly identified those pathways as potentially significant ecological effects. It also acknowledged that some operational effects could remain for the lifetime of the Scheme.

That is important because those pathways correspond closely with the pressures identified by Natural England as threatening barbastelle recovery.

1. Landscape-scale construction disturbance

Construction is not confined to a single compact compound. The Scheme comprises multiple solar sites, cable corridors, access routes, substations, BESS and grid infrastructure distributed through the same wider landscape used by barbastelles.

The Applicant envisaged an approximately 24-month construction programme with the possibility of multiple crews operating concurrently on larger sub-sites. Construction compounds include hardstanding, vehicle parking, secure storage, fencing and temporary lighting. Construction may also extend beyond normal daytime working for abnormal-load deliveries, concrete pours, highway cable works and HDD. Hedgerow removal is expressly contemplated where avoidance is not practicable.

The cable corridor alone was expected to involve multiple working fronts or sequential progression through the landscape, with open trenching used for much of the route and trenchless techniques at selected locations. The Applicant's scoping assumptions also contemplated substantial construction staffing and vehicle activity distributed across the Scheme.

Against Natural England's evidence, the relevant question is therefore not whether any single work site occupies a small fraction of a six-kilometre Core Sustenance Zone. It is whether multiple simultaneous or successive disturbances affect the network of roosts, feeding areas and flight paths upon which one or more maternity colonies depend.

2. Disturbance close to maternity woodlands

Norfolk Wildlife Trust has specifically advised that cabling should be kept away from woods, particularly those containing bat maternity colonies. It identifies noise and vibration as a risk to maternity colonies and recommends avoidance of working close to such woods during the maternity period from mid-June to the end of July. Importantly, it says that this restriction should apply not only during initial construction but also during large-scale maintenance and ultimate removal of the panels.

That advice corresponds closely with Natural England's warning that disturbance at maternity roosts is a particular concern during the period in which females are rearing pups.

The application must therefore demonstrate, woodland by woodland, that piling, HDD, trenching, vegetation removal, HGV movements and other high-disturbance operations will not adversely affect maternity-colony function. A generic CEMP commitment to minimise noise is not a substitute for colony-specific assessment.

3. Hedgerow severance and alteration of commuting habitat

Natural England expressly includes woody linear features—hedgerows and treelines—within the supporting habitat required by barbastelles. Its FCS modelling incorporates such features because they contribute to foraging and connectivity in agricultural landscapes. It also identifies maintaining and improving hedgerows and treelines as part of the habitat response necessary to achieve favourable status.

East Pye, however, requires cable, access and highway crossings through a landscape in which hedgerows form much of the remaining semi-natural network. The Applicant stated from the outset that some hedgerow removal would be required where avoidance was not practicable.

The ecological effect cannot be assessed merely by totalling kilometres of hedgerow retained or restored. A comparatively short gap may affect an important flight line between a maternity woodland and a feeding area, while a much greater length elsewhere may be irrelevant to that particular colony. Natural England's evidence about foraging-site fidelity makes this especially important: individual females may return repeatedly to established feeding areas and routes between years. Accordingly, the Applicant must establish the importance of the particular hedge being crossed before concluding that its removal and later reinstatement are insignificant.

4. Artificial lighting within a presently dark landscape

There is an especially direct conflict between Natural England's FCS evidence and the introduction of artificial lighting.

Natural England identifies artificial lighting as a factor reducing habitat suitability and connectivity. Its genomic evidence indicates that lighting negatively affects connectivity between colonies, and it regards increasing rural light pollution as a considerable threat to barbastelles over coming decades.

East Pye introduces both temporary and operational lighting into the same landscape. The Applicant has accepted the need for temporary construction lighting during periods of darkness, including circumstances in which works may take place outside normal hours. The wider project proposals also include lighting associated with substations, ancillary electrical infrastructure and the BESS. Earlier consultation material specifically identified motion-sensing security lighting at such infrastructure.Norfolk Wildlife Trust accordingly requests no construction or operational lighting in core areas, particularly near woodland.

For a species whose national recovery requires landscape connectivity **not impacted by artificial lighting**, it is not sufficient to say that lights will be "sensitive", directed away from hedges or switched off when unnecessary. The Applicant must demonstrate spatially, by quantitative lighting design and lux modelling, that the network used by the maternity colonies will remain dark and functional throughout construction, operation, maintenance and replacement.

5. Foraging habitat and prey resource

Natural England describes barbastelle as a moth specialist and expressly links favourable status to the availability of high-moth-biomass woodland, wetland, riparian vegetation, hedges and treelines. It identifies declines in moth populations as a serious concern and states that agricultural practices which reduce moth abundance can have considerable adverse effects upon barbastelle populations.

The potential effect of East Pye therefore extends beyond the retention or removal of trees. The Scheme changes a very large agricultural landscape through arrays, fencing, new grassland regimes, drainage alterations, new woodland and hedgerow planting, access tracks, substations and long-term vegetation management.

Some of those changes may improve prey resources; cessation of intensive agricultural inputs and new species-rich grassland could benefit moths and other insects. Those potential benefits should be acknowledged. But they do not establish that the Scheme will improve the particular foraging resource used by the existing maternity colonies.

Natural England's evidence that females display strong fidelity to individual foraging areas means that the appropriate assessment is not whether the Scheme creates more generic "biodiversity" somewhere within the Order Limits. It is whether the known colonies retain sufficient productive feeding habitat, in the locations and configurations they actually use, throughout the period before

any new habitat becomes ecologically mature. That question requires radiotracking and colony-specific habitat-use evidence.

6. Woodland-edge effects and roost-tree resource

The Applicant's original baseline recognised that hedgerows, lines of trees, woodland and ditches throughout the Scheme provide bat foraging and commuting habitat and acknowledged barbastelle maternity roosts in the surrounding landscape. It also identified trees with potential roost features for further investigation.

Natural England's FCS evidence demonstrates why protecting only a known occupied tree would be inadequate. Barbastelles may use dozens of roost trees during a season, and the high turnover of loose-bark and similar features requires a continuing supply of damaged, dying and veteran trees. Any assessment of East Pye must consequently address not only direct felling but also:

- root damage and compaction;
- altered drainage;
- lighting of woodland edges;
- pruning for accesses and visibility;
- noise and vibration;
- loss of adjacent feeding habitat;
- and long-term management that could remove dying or damaged trees for safety or operational reasons.

Natural England's FCS objective is to **increase** the availability of veteran, dead and decaying trees and protect existing and potential roost sites from development and disturbance.

That objective should be used as the benchmark against which the Applicant's proposals for every maternity woodland and associated tree network are tested.

7. Operational duration and repeated disturbance

East Pye is proposed to operate for up to 60 years. The Applicant expressly defines the operational period as including maintenance and equipment replacement. Its own ecological scoping assessment recognised potential disturbance, damage or loss of protected-species breeding or resting sites during panel replacement and acknowledged that some operational effects could remain for the lifetime of the Scheme.

This has particular significance for barbastelle because 60 years is longer than the period Natural England considers may be required for newly established woodland to begin providing sufficient natural roost opportunities.

The Scheme therefore cannot be assessed as a single two-year disturbance followed by six decades of ecological inactivity. Over that period there may be:

- repeated panel replacement;
- BESS replacement;

- transformer and inverter maintenance;
- cable repair;
- vegetation management;
- access by heavy vehicles;
- lighting for maintenance and emergencies;
- and eventual decommissioning.

Those activities must be incorporated into the assessment of each colony's long-term ability to occupy its roost network and feeding landscape.

The central conflict

Natural England's national recovery requirements and East Pye's potential effects can be stated simply.

Natural England says favourable status requires	East Pye introduces or permits
Increasing the barbastelle population substantially above its current estimate	Development through a landscape supporting multiple maternity colonies
More suitable supporting habitat	Conversion and long-term alteration of extensive colony-support landscapes
Protection of existing and potential roost sites from development and disturbance	Construction, access, cable and operational activities close to woodland and potential roost trees
More veteran, dead and decaying trees	Long-term operational interfaces in which tree safety, access and infrastructure clearance must be managed
Maintenance and improvement of hedgerows and treelines	Repeated crossings and some removal/reinstatement of hedgerows
High-quality woodland and riparian foraging habitat with abundant moth prey	Construction and operational alteration of woodland-edge, field-boundary and riparian landscapes
Landscape connectivity free from artificial-light barriers	Temporary construction lighting and permanent/occasional lighting at major infrastructure nodes
Protection of maternity colonies from disturbance	Noise, vibration, vehicles, HDD, piling and other construction or maintenance activities within the wider maternity landscape
Identification of presently undiscovered colonies	Independent evidence showing additional colonies/probable colonies and calling for further radiotracking
Expansion and recovery rather than continued fragmentation	A dispersed 60-year infrastructure project extending across the same connected landscape

The comparison does not establish that every East Pye activity will necessarily cause a population decline. Nor does Natural England's FCS document amount to a project-specific objection to East Pye. It does something different and important: it defines the ecological conditions required for the

species to recover and thrive. Against that benchmark, the burden upon the Applicant is substantial.

The Applicant cannot establish compatibility simply by showing that most woodland trees remain standing, that most hedgerow length is retained or that its BNG metric is positive. Natural England's own evidence demonstrates that favourable conservation status depends upon the **function** of a connected landscape: multiple interchangeable roosts, established feeding areas, high prey biomass, mature linear features, darkness, limited disturbance and gene flow between colonies.

Implications for East Pye's mitigation case

The Applicant's proposed habitat creation may have ecological value, but Natural England's FCS evidence demonstrates why it cannot automatically be regarded as equivalent mitigation for existing barbastelle habitat.

For woodland roosting habitat in particular, Natural England states that there is currently no proven short- to medium-term mitigation or compensation for its loss. New woodland may require 50 years or more to provide sufficient natural roost opportunities, while even favourable management of established woodland may require at least 30 years before barbastelle use increases significantly.

The same temporal problem applies, albeit less absolutely, to hedgerow and foraging-habitat replacement. The question is not whether the metric awards future habitat units but whether maternity colonies continue to have the resources they require during every intervening breeding season.

The appropriate application of the mitigation hierarchy is therefore avoidance first. Existing maternity woods, alternative roost networks, principal commuting routes, dark corridors and important foraging areas should be identified and development removed from them. New planting should enhance that retained network, not be relied upon to repair fragmentation caused by the Scheme.

Required examination evidence

BEPS submits that the Applicant should be required to demonstrate compatibility with Natural England's FCS evidence through a specific barbastelle assessment which:

1. maps every confirmed and probable maternity colony and the alternative roost network associated with it;
2. completes the further radiotracking required to establish principal flight paths, foraging areas and colony-specific habitat use;
3. overlays the complete construction and operational footprint, including compounds, access routes, cable works, substations, BESS, fencing, lighting and highway works;
4. identifies every interruption or alteration of mature hedgerows and treelines within the relevant colony landscapes;

5. provides a quantitative dark-corridor plan demonstrating that important routes and habitat remain free from artificial-light barriers;
6. assesses piling, HDD, noise and vibration against each maternity woodland and sensitive breeding period;
7. demonstrates that each affected colony retains sufficient roost-resource continuity, foraging habitat and dark connectivity throughout construction, the 60-year operational phase, replacement cycles and decommissioning;
8. separates immediate habitat functionality from future BNG habitat that may take decades to mature;
9. tests the Scheme against the cumulative effects of other development affecting the same colonies and landscape network; and
10. explains, by reference to Natural England's FCS parameters, how the Scheme would avoid impeding the recovery of a species which Natural England presently considers not to be at favourable conservation status.

Conclusion

Natural England's 2024 FCS definition sets the context in which East Pye's barbastelle effects should be judged. Barbastelle is not a species presently considered secure at a favourable level. Natural England's objective is a major increase in population, supporting habitat and connectivity. Its evidence identifies old-growth woodland, numerous veteran and deteriorating roost trees, mature hedgerows, riparian habitat, moth-rich foraging areas, darkness and landscape connectivity as central to that recovery, while identifying habitat fragmentation, disturbance and artificial lighting as important threats.

East Pye is proposed across a landscape in which those same features support multiple maternity colonies. Its own development envelope entails habitat disturbance and fragmentation, hedgerow crossings, construction compounds, plant and vehicle movements, noise, vibration and lighting, together with repeated operational maintenance and replacement over up to 60 years. Norfolk Wildlife Trust specifically identifies the need to protect connectivity, keep cabling away from maternity woods, avoid maternity-period noise and vibration and prevent operational and construction lighting in core areas. They have also called for site 3 to be removed from the scheme.

The issue is therefore not whether some habitat will remain or whether a positive BNG percentage can be generated. The relevant question is whether this nationally important colony landscape will retain the roost resource, feeding capacity, darkness and connectivity necessary for the existing colonies to persist and for the species to recover towards the favourable status Natural England says has not yet been achieved. On the evidence presently available, that has not been demonstrated. This raises the question of whether European Protected Species Licences can be obtained to construct, operate or decommission this project.

8.5.8 Peer-reviewed evidence concerning solar development and bats

The need for precaution is reinforced by Tinsley et al. (2023), published in the Journal of Applied Ecology. That study examined bat activity at nineteen paired ground-mounted solar developments and control sites in south-west England.

It found significantly lower bat activity at solar sites for six of the eight taxa analysed. The effects were not confined to activity over the open panel fields. Reduced activity was also identified along field boundaries for some taxa, including Myotis species and serotine. Reduced open-field activity was identified for soprano pipistrelle and Plecotus species, among others.

This evidence is directly relevant to the Applicant's assumption that the retention of boundary hedgerows, supplemented by buffers and habitat creation, is sufficient to maintain bat use. The study indicates that solar development may affect activity even at retained field boundaries. Possible mechanisms considered include changes in habitat structure, prey availability, microclimate, acoustic conditions and the way bats perceive and navigate through panel landscapes.

The study does not establish that every solar development will produce the same effect or that all taxa will respond identically. Its significance lies in demonstrating that ground-mounted solar cannot safely be assumed to be ecologically neutral for bats merely because hedges are retained and pesticide use is reduced.

That distinction is particularly important for East Pye. The Tinsley study considered ordinary paired solar and control sites. East Pye is proposed within a landscape that the Applicant itself has assessed as nationally important for bats and that contains overlapping barbastelle maternity-colony zones. The potential consequence of any displacement or reduction in activity is therefore greater.

The authors recommend that bat effects should be properly screened and assessed through EIA and that alternative siting may be more appropriate where important bat habitat is present. That aligns with the mitigation hierarchy: the presence of an unusually important bat resource should influence site selection before mitigation and compensation are considered.

8.5.9 Functional effects of the Scheme on the bat landscape

The principal effects on bats do not arise solely from direct removal of roosts. They arise from the interaction of multiple development components across the functional landscape.

Those components include:

- thousands of hectares of panel arrays and associated field infrastructure;
- repeated breaks in hedgerows;
- widened lanes and new visibility splays;
- access tracks and haul roads;
- extensive fencing;
- substations and BESS infrastructure;
- temporary and permanent lighting;
- construction compounds;
- trenching and HDD;
- pile driving;
- vegetation clearance;
- increased vehicle movements;

- and sixty years of inspection, maintenance and equipment replacement.

Each element may affect a different part of the same ecological system. A hedge may be physically retained but crossed by a lit access road. A woodland may be buffered but enclosed on several sides by panels and fencing. A stream corridor may remain but be subjected to crossings, compound activity and altered drainage. A roost tree may survive while its dark approach route and surrounding feeding habitat are degraded.

The ES does not supply a landscape-scale permeability assessment showing how bats will continue to move among the relevant colonies, woods, watercourses and foraging areas. Nor does it identify a hierarchy of flight routes against which every construction and operational crossing has been tested.

The absence of demonstrated direct roost loss cannot therefore support a conclusion of no significant effect. For a woodland bat using multiple roosts and extensive feeding grounds, loss of functional connectivity may be as consequential as the loss of an individual feature.

8.5.10 Protected-species licensing implications

Barbastelles and all other bats are European Protected Species. Where works risk deliberate disturbance, damage or destruction of a breeding site or resting place, obstruction of access, or another prohibited act, an EPS licence may be required from Natural England.

Natural England's Relevant Representation identifies protected-species licensing as an outstanding amber matter. It notes that licences may be required for roosting bats and strongly advises that the issue be addressed at the earliest opportunity. The Planning Inspectorate's scoping material likewise advised that, where a licence may be needed, the Applicant should engage with Natural England's pre-submission service and seek a Letter of No Impediment to provide confidence that a future licence is realistically obtainable.

The present application does not demonstrate a settled licence route for the barbastelle impacts now identified.

A licence can only be granted where the relevant statutory tests are met, including the absence of a satisfactory alternative and the maintenance of the affected population at favourable conservation status in its natural range. For East Pye, those tests require evidence addressing:

- the number and distribution of affected colonies;
- the status of the local and wider population;
- the functional importance of the affected habitat;
- the proportion of colony resources affected;
- the effectiveness and certainty of mitigation;
- cumulative effects from other projects;
- and whether a less damaging site or layout is available.

The Scheme's location within a nationally important bat landscape is directly relevant to both tests. Solar development is comparatively flexible in location, while the maternity-colony network

and ancient woodland resource are not. The existence of less ecologically constrained land elsewhere is therefore relevant to whether there is a satisfactory alternative.

Similarly, favourable conservation status cannot be assumed to be maintained where the full colony network, principal routes and satellite roost use remain incompletely understood and where Natural England's own conservation guidance identifies no proven short- to medium-term replacement for lost woodland-roosting function.

The Examination should not treat a future contractor-led licence application as a substitute for the ecological evidence needed now to understand the affected population, functional habitat and likely impact of the authorised development.

8.5.11 Conclusion on bats and barbastelles

The Applicant's own evidence establishes that:

- the bat assemblage is of national importance;
- eleven species are present;
- activity is widespread across the whole Order Limits;
- barbastelle is the third most frequently recorded species;
- barbastelle occurs at every static detector location;
- multiple maternity colonies surround the Scheme;
- overlapping Core Sustenance Zones cover the development landscape;
- known and likely colonies remain incompletely mapped;
- and the Order Limits provide supporting commuting and foraging habitat above what would ordinarily be expected from the broad habitat classifications used.

The Norfolk Barbastelle Study Group concludes that further work is required to understand colony distribution and habitat use. Natural England's favourable-conservation-status guidance demonstrates that barbastelles require extensive, dark, connected landscapes and that woodland-roosting habitat cannot reliably be replaced in the timescale relevant to this development. The Tinsley research provides empirical evidence that ground-mounted solar can reduce bat activity, including at retained field boundaries.

Against that evidence, the Applicant's reliance on buffers, retained hedges, future planting, outline lighting controls and metric-based BNG does not establish that the nationally important bat landscape will remain functional.

The appropriate mitigation-hierarchy response is avoidance. In this context, avoidance means more than preserving individual trees or adjusting isolated panel edges. It requires avoiding industrial development across the maternity-colony support landscape where the effects of fragmentation, lighting, disturbance and reduced habitat use cannot reliably be prevented or compensated.

BEPS submits that the Applicant has not yet demonstrated that the nationally important bat landscape will retain the roost resource, connectivity, darkness and foraging function necessary to

support the affected barbastelle colonies throughout construction and operation. Nor has it demonstrated, on the present evidence, that any necessary EPS licensing issues can be resolved without further survey, avoidance or redesign. Those uncertainties weigh strongly against reliance on the present conclusion of no significant residual effect.

8.6 SSSI Woodland Context and Barbastelle Protection

A number of the woodlands supporting barbastelle activity within and adjacent to the Order Limits are not only ecologically important but are designated **Sites of Special Scientific Interest (SSSIs)**. These include:

- **Shotesham Little Wood (Parcel 8b)**
- **Hempnall Little Wood (Parcel 7h)**
- **Saxlingham Grove complex (Parcels 7e, 7f, 7g)**
- **Hedenham Wood (Parcel 10b)**

These designations are of direct legal and ecological significance. SSSIs represent the highest level of national site protection for nature conservation in England and are notified specifically for their habitats, species assemblages and ecological integrity. In this case, these woodland sites form part of a wider, connected landscape that supports **barbastelle maternity colonies and associated foraging and commuting networks**.

The presence of European Protected Species within or functionally dependent upon SSSI-designated land materially elevates the level of protection. Barbastelle bats are highly sensitive to disturbance, fragmentation and changes in landscape connectivity. Their reliance on woodland roosts combined with extensive use of surrounding farmland means that impacts to adjacent land—such as those proposed under this Scheme—can directly affect the integrity and functionality of the SSSI itself, even where development lies outside the formal boundary.

This has two critical implications.

First, the assessment of effects must consider not only direct impacts on SSSI habitats but also **indirect and functional impacts**, including:

- disruption of commuting routes between SSSI woodlands;
- degradation of foraging habitat within Core Sustenance Zones;
- increased lighting, noise and activity in otherwise dark and undisturbed landscapes;
- fragmentation of the wider ecological network upon which SSSI interest features depend.

Failure to assess these pathways would be inconsistent with both EIA requirements and Natural England guidance on impact pathways affecting designated sites.

Second, the combination of **SSSI designation and EPS presence significantly constrains licence grantability**. Under the Habitats Regulations, a licence affecting barbastelle bats can only be granted where favourable conservation status is maintained. Where those populations are associated with SSSI woodlands, any adverse effect is not only a species issue but a designated site issue. Natural England, as the statutory nature conservation body, is under a duty to protect SSSIs and may object to development that would damage their notified features or the ecological processes that sustain them.

In practical terms, this means that:

- Impacts on barbastelle populations linked to SSSI woodlands are likely to be afforded **heightened scrutiny and precaution**;
- Mitigation relying on habitat replacement or off-site measures is unlikely to be considered adequate where it cannot replicate the complexity and continuity of established woodland systems;
- The threshold for demonstrating no adverse effect on favourable conservation status is materially higher;
- There is a **real prospect of objection from Natural England** where the Scheme would compromise the ecological function of SSSI-associated bat populations.

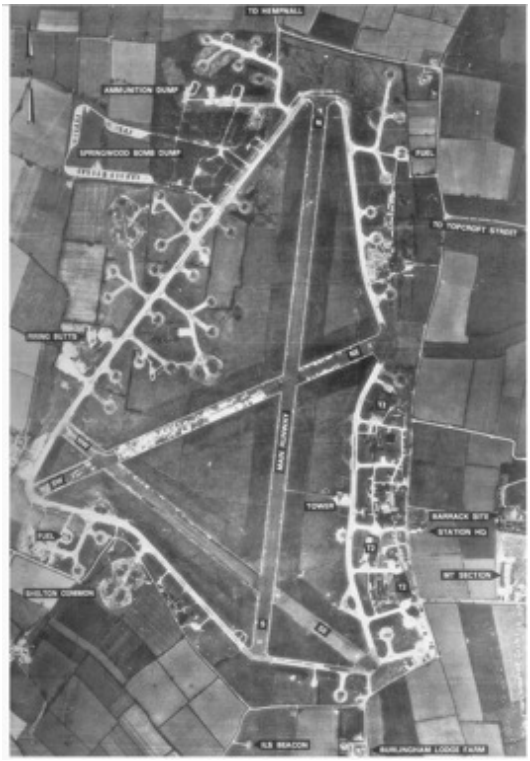
Taken together, the presence of multiple SSSI woodlands within the barbastelle metapopulation network reinforces that this is not a typical ecological constraint but a **highly sensitive, legally protected landscape system**. The Scheme would introduce industrial-scale disturbance into this system, with clear potential to undermine both the integrity of designated sites and the conservation status of a strictly protected species. This substantially reduces the likelihood that necessary consents, including any EPS licence, could lawfully be granted.

Spring Wood and the converted Second World War bomb shelters

Spring Wood and the adjoining former Hardwick Airfield structures require separate treatment because this area appears to support a combined maternity, hibernation, commuting and foraging resource for bats. The former Second World War bomb shelters bordering Sites 3A and 3B were deliberately converted by Norfolk Bat Group into bat hibernacula and are reported to support a wide range of bat taxa including Daudenton, Natterer ad other Myosotis bats. Those structures sit on the same ecological edge as Spring Wood, where the Applicant identifies a known barbastelle roost and foraging area and records barbastelle activity within the relevant emergence period. The area should therefore not be assessed merely as arable land beside woodland. It forms part of a year-round functional bat landscape in which woodland roosts, converted hibernation structures, mature trees, field boundaries and surrounding feeding habitat operate together.



Image: WWII Bunker at Spring Wood converted to a bat hibernaculum by Norfolk Bat Group.



Hardwick Airfield 16 April 1946 showing bomb loading locations (associated bunkers beneath) along the north-western edge of Spring Wood.



Image: Proposed siting of solar infrastructure on site 3, immediately adjacent to bat hibernacula.

The importance of the converted shelters is not answered by the absence of direct works to the structures themselves. A hibernaculum or resting place may remain physically intact while its ecological function is impaired by disturbance, obstruction, lighting, severance of approach routes or degradation of surrounding feeding habitat. Construction in the adjoining fields would introduce pile driving or other installation noise, HGV movements, trenching, compounds, fencing, human activity and potentially artificial lighting immediately beside a deliberately created bat refuge. The noise assessment quantifies construction noise at Lundy Green (immediately north-west of Spring Wood) as Major Adverse. The Applicant has not provided a hibernacula-specific assessment of these pathways, has not mapped the routes used by bats moving between the shelters, Spring Wood and the surrounding hedgerow network, and has not demonstrated that construction noise and vibration would remain below thresholds capable of avoiding disturbance. The general assertion that most hedgerows and woodland buffers will be retained does not answer those site-specific risks.

The scientific evidence concerning solar development makes the omission more serious. Tinsley et al. found reduced activity at solar sites for six of the eight bat taxa analysed, including reduced activity along field boundaries for Myotis species and serotine, and reduced activity over open fields for soprano pipistrelle and Plecotus species. The East Pye survey records those same taxa or guilds within the Order Limits: Myotis species, serotine, soprano pipistrelle and brown long-eared bat, the latter representing Plecotus. The Hardwick hibernacula are reported to support a broad bat assemblage rather than barbastelle alone. The taxa using this local roosting and hibernation resource therefore include, or are likely to include, the very groups for which the published solar

evidence identifies reduced activity. The Tinsley risk is consequently not generic or remote; it is directly relevant to the bat community associated with Spring Wood and the converted shelters.

This is also an area in which Norfolk Wildlife Trust has expressly sought avoidance through site selection. During consultation, NWT recommended removal of the Site 3 land because it surrounds Spring Wood County Wildlife Site and adjacent priority deciduous woodland and because of the likely effects on woodland, bats and ecological connectivity. NWT's later representation records that Site 3 had previously been recommended for removal from the Scheme and that concern remained even after design changes, particularly in relation to development immediately west of the ancient woodland and the need for wider buffers and ecotones.

The Applicant has not followed that advice in full. Only part of the affected land has been removed, leaving approximately half of the original parcel within the Scheme. Partial reduction does not amount to avoidance where the retained development remains beside the same maternity roost, hibernacula and commuting network. Nor has the Applicant demonstrated that the half retained is ecologically less important than the half removed. In the absence of colony-specific tracking, hibernation survey evidence and mapped flight routes, there is no evidential basis for concluding that an arbitrary reduction in area preserves the function of the whole bat landscape.

The planning consequence is therefore clear. Spring Wood and the Hardwick bomb shelters constitute a known and deliberately enhanced bat resource beside a nationally important bat landscape. The Applicant's own evidence identifies the area as a barbastelle roosting and foraging location; local evidence identifies converted hibernacula supporting multiple bat taxa; peer-reviewed research identifies adverse solar associations for the same taxa; and Norfolk Wildlife Trust has expressly sought removal of the relevant development parcel. Retaining half of the parcel does not meet the mitigation hierarchy because the principal conflict remains.

BEPS submits that the remaining Site 3 development adjoining Spring Wood and the converted bomb shelters should be removed from the Scheme in full. At minimum, no conclusion of ecological acceptability can be reached without dedicated hibernation surveys, radio-tracking and route mapping, a species-specific construction noise and vibration assessment, fixed dark-corridor protection and evidence demonstrating that the retained development would not disturb or reduce the functionality of the combined maternity, hibernation and foraging resource.

8.6.1 Hedgerow severance and loss of functional connectivity

The principal ecological impact of East Pye Solar is not the direct loss of individual habitats but the fragmentation of the ecological network that connects them. Throughout the Environmental Statement, the Applicant assesses hedgerows, woodland blocks, ponds and other habitats largely as discrete receptors capable of being retained, buffered or compensated. That approach fundamentally misunderstands the ecological function of the South Norfolk Claylands landscape and, in particular, the ecology of the nationally important bat assemblage that the Applicant itself has identified.

The Applicant's own surveys demonstrate that the Order Limits are not used by bats as isolated habitat patches. Barbastelle activity was recorded across the entire Scheme, at every static detector, with the Order Limits lying within the overlapping Core Sustenance Zones of multiple maternity colonies. The significance of those findings is that the landscape functions as an interconnected network of woodland, hedgerows, mature trees, field margins, ponds, streams and dark rural lanes. These linear features enable bats to move safely between roosts and feeding areas while maintaining protection from predators and exposure to artificial light. It is this functional network that supports the nationally important assemblage identified by the Applicant.

The Environmental Statement repeatedly refers to the retention of existing hedgerows as mitigation. However, retaining sections of hedgerow does not necessarily retain ecological connectivity. Connectivity depends upon whether those hedgerows continue to function as continuous, dark and undisturbed commuting routes. The Scheme introduces numerous physical and functional interruptions to those corridors through:

- new site accesses;
- widening of narrow rural lanes;
- visibility splays;
- haul roads;
- cable corridors;
- temporary construction compounds;
- permanent access tracks;
- substations;
- BESS infrastructure;
- security fencing;
- trenching and horizontal directional drilling compounds;
- construction working areas;
- and repeated crossings by construction and maintenance traffic.

Each individual crossing may appear relatively minor in isolation. However, ecological function must be assessed across the whole Scheme rather than at individual locations. A bat commuting from a maternity colony does not experience a single hedgerow crossing. It experiences a landscape containing repeated interruptions, lighting sources, vehicle movements, altered vegetation structure and barriers distributed throughout its home range. The cumulative consequence is a progressive reduction in landscape permeability.

This concern is reinforced by the historic character of the South Norfolk Claylands. Professor Tom Williamson's Restoring the Claylands explains that the biodiversity value of this landscape lies not simply in individual habitats but in the intricate pattern of connections between them. Ancient hedgerows, roadside verges, ponds, commons, woodland blocks, field margins and watercourses developed over centuries as an integrated ecological network. Restoration within the Claylands should therefore strengthen these historic connections rather than fragment them through piecemeal development. The Applicant's proposals would instead superimpose industrial infrastructure across this surviving network. That is fundamentally different from development on large, open landscapes where habitat connectivity is less dependent upon historic field patterns.

The South Norfolk Tree Warden Network reaches the same conclusion from an arboricultural perspective. Its representation explains that mature hedgerows and trees should be regarded as

ecological infrastructure rather than simply landscape features. It identifies approximately 621 trees with potential bat roost features and warns that repeated hedgerow gaps, access points, root disturbance and construction activity have not been assessed in terms of their cumulative impact upon habitat connectivity. The Tree Wardens also emphasise that ecological effects cannot be measured solely by direct tree loss. Trees retained within altered landscapes may lose ecological function through soil compaction, root damage, hydrological change, increased exposure or isolation from the surrounding habitat network.

The Forestry Commission similarly identifies fragmentation as one of the greatest threats to ancient woodland. Its representation specifically raises concern regarding Doyly's Grove and Ringers Grove, noting that smaller ancient woodland blocks become increasingly vulnerable when enclosed by development and separated from surrounding habitat. It recommends larger woodland buffers, woodland expansion and strengthened habitat connections rather than simple retention of woodland boundaries. These concerns are directly applicable to bats. Woodland retained as an isolated island within solar infrastructure cannot provide the same ecological function as woodland remaining connected to surrounding hedgerows, field margins and feeding habitat.

The Applicant has not undertaken a landscape permeability assessment demonstrating how bats will continue to move between the known maternity colonies, satellite roosts, woodland blocks and feeding areas following construction of the Scheme. Nor has it identified a hierarchy of primary and secondary commuting corridors against which every crossing, access, cable route and infrastructure element has been tested.

This omission is particularly important because the Norfolk Barbastelle Study Group has shown that the Order Limits lie within overlapping Core Sustenance Zones associated with multiple maternity colonies. Individual hedgerows and woodland edges are therefore likely to be used simultaneously by bats from different colonies. The loss or degradation of one corridor may consequently affect several maternity populations rather than a single local roost. The Applicant has not attempted to assess this cumulative landscape function.

The importance of maintaining uninterrupted commuting corridors is reinforced by Natural England's Definition of Favourable Conservation Status for Barbastelle. That guidance identifies continuous woodland networks, hedgerows, riparian corridors and dark landscape connections as fundamental components of favourable conservation status. It recognises that barbastelles are highly dependent upon structurally connected landscapes and that fragmentation of those connections may affect population viability even where individual roost trees remain physically intact. The Applicant's mitigation strategy, based largely upon retaining hedgerows in situ while introducing repeated crossings and infrastructure, has not demonstrated compliance with that guidance.

The peer-reviewed evidence also points in the same direction. Tinsley et al. (2023) found reduced bat activity associated with ground-mounted solar developments, including reduced activity along retained field boundaries for several taxa. Although the study was not specific to barbastelle, it demonstrates that retention of hedgerows does not necessarily preserve their ecological function. Changes in habitat structure, prey availability, lighting, microclimate and movement behaviour may reduce use even where the physical hedge remains. This is highly relevant to East Pye because the Applicant's principal mitigation relies precisely upon retaining existing hedgerows.

The issue extends beyond bats. The same connected network supports breeding birds, dormice where present, hedgehogs, brown hare, pollinating insects, reptiles and numerous invertebrate communities. Field margins connect to roadside verges; verges connect to hedgerows; hedgerows connect to woodland edges; woodland edges connect to ponds and streams. Fragmentation of one component therefore propagates through the wider ecological system. The Applicant's assessment largely considers these receptors separately rather than examining how repeated disruption to the connecting network affects the resilience of the landscape as a whole.

The impacts are also cumulative in time. Construction would occur over several years, involving repeated disturbance, vegetation clearance, traffic movements and engineering works. Operational impacts would continue for approximately sixty years, during which the network would remain interrupted by fencing, roads, substations, maintenance activity and periodic replacement of infrastructure. Decommissioning would introduce a further major phase of disturbance. The Environmental Statement does not evaluate the consequences of repeated interruption over the entire life cycle of the Scheme.

Nor is there sufficient evidence that proposed replacement planting would restore ecological connectivity within a meaningful timescale. Newly planted hedgerows and woodland strips require many years before they develop the structure, height, continuity, insect assemblages and microclimate associated with mature Claylands boundaries. During that period, the functional loss remains. For species such as barbastelle, whose conservation depends upon established mature landscape features, replacement planting cannot be regarded as functionally equivalent.

This illustrates the wider failure to apply the mitigation hierarchy correctly. Rather than first avoiding fragmentation of the most sensitive ecological corridors, the Applicant has selected a development footprint that extends across the functional landscape of multiple barbastelle maternity colonies and then proposes to mitigate fragmentation through retained hedgerows, replacement planting and outline ecological management. That reverses the hierarchy required by EN-1 and the NPPF. Avoidance should have informed site selection and layout before mitigation was considered.

The evidence before the Examination demonstrates that ecological connectivity is one of the defining characteristics of the South Norfolk Claylands and one of the principal reasons why the Applicant's own surveys conclude that the bat assemblage is of national importance. The Scheme would introduce repeated severance and degradation of that connectivity across the Order Limits, yet no comprehensive assessment has been undertaken of landscape permeability, colony-specific commuting routes or cumulative corridor loss. The Applicant has therefore failed to demonstrate that the functional integrity of this nationally important ecological network will be maintained.

BEPS submits that the effects of hedgerow severance and habitat fragmentation have been materially underestimated. The reliance on retaining individual hedgerow fragments does not establish that ecological connectivity will survive. In the absence of a robust functional connectivity assessment demonstrating that the network supporting multiple barbastelle maternity colonies and other protected species will remain intact throughout construction, operation, replacement and decommissioning, the Applicant has not shown that these impacts

can be avoided or adequately mitigated. This conflict with the mitigation hierarchy weighs strongly in favour of refusal.

8.6.2 Artificial lighting and fragmentation of dark landscapes

Artificial lighting is one of the most significant but consistently underestimated ecological impacts of the Scheme. Throughout the Environmental Statement, lighting is largely treated as an engineering issue capable of being controlled through future design, directional luminaires and operational management. That approach fails to recognise that darkness is itself an ecological resource. Within the South Norfolk Claylands, the maintenance of extensive, continuous dark landscapes is fundamental to the functioning of the nationally important bat assemblage identified by the Applicant.

The issue is not simply whether individual lights can be shielded from adjacent woodland. It is whether the introduction of numerous permanent and temporary light sources across a landscape supporting multiple barbastelle maternity colonies fundamentally alters the behaviour, connectivity and ecological function of that landscape.

The Applicant's own bat surveys demonstrate that East Pye Solar lies within a landscape of national importance for bats, with barbastelles recorded throughout the Order Limits and multiple maternity colonies occupying the surrounding woodlands. Barbastelles are widely recognised as one of Europe's most light-sensitive bat species. Unlike more urban-adapted bats such as pipistrelles, barbastelles characteristically avoid illuminated habitats and preferentially commute along continuous dark corridors. Their dependence upon darkness is therefore not incidental but forms an essential part of their ecological requirements.

Natural England's Definition of Favourable Conservation Status for Barbastelle reflects this ecology. It identifies the maintenance of dark, well-connected woodland, hedgerow and riparian networks as an important component of favourable conservation status. The guidance recognises that artificial lighting may alter commuting behaviour, fragment habitat, reduce access to feeding areas and isolate woodland roosts even where no direct habitat loss occurs. The relevant ecological effect is therefore behavioural fragmentation rather than physical habitat destruction.

This distinction is critical for East Pye Solar.

The Applicant relies extensively upon retaining hedgerows, woodland edges and buffer strips. However, a retained hedgerow which becomes illuminated by construction compounds, security lighting, maintenance vehicles or substation infrastructure no longer functions as the same commuting corridor. From the perspective of a light-averse species, the corridor may effectively cease to exist.

The Scheme introduces multiple potential lighting sources throughout the sixty-year operational life of the development.

These include:

- BESS compounds;

- substations;
- customer substations;
- National Grid infrastructure;
- security lighting;
- CCTV activation lighting;
- maintenance activities;
- emergency lighting;
- temporary construction compounds;
- construction welfare facilities;
- site accesses;
- vehicle headlights;
- abnormal indivisible load movements;
- temporary highway works;
- cable installation compounds;
- and possible night-time construction where operationally necessary.

Although the Applicant states that lighting will be minimised wherever practicable, the Environmental Statement largely defers the detailed assessment to an Outline Lighting Strategy and subsequent detailed design.

That is insufficient.

Lighting cannot be regarded as a minor engineering detail to be resolved after consent where the receptor concerned is the very nationally important bat assemblage identified by the Applicant.

The Planning Inspectorate's Scoping Opinion recognised this issue from the outset. It specifically required the Environmental Statement to assess ecological effects arising from construction lighting and operational lighting. Nevertheless, the Applicant's Scoping Report originally proposed that lighting effects on ecology could be scoped out because lighting would supposedly be designed sensitively. That approach was not accepted by the Inspectorate, which required lighting impacts to be considered because they could affect ecological receptors.

The Environmental Statement has still not undertaken the level of assessment that this receptor demands.

Rather than modelling landscape-wide changes in darkness, the Applicant principally relies upon qualitative statements that lighting will be:

- directional;
- shielded;
- motion activated;
- minimised;
- and designed to avoid woodland wherever possible.

Those commitments remain largely generic.

There is no comprehensive landscape lighting model demonstrating:

- cumulative illuminance across the Order Limits;
- spill along hedgerows;
- spill across woodland edges;
- spill onto ponds and streams;
- interaction between multiple lighting sources;
- seasonal variation;
- maintenance activities;
- emergency operation;
- cumulative effects with surrounding infrastructure;
- or changes to landscape permeability for bats.

Nor has the Applicant identified which commuting corridors must remain entirely dark in order to preserve connectivity between the known maternity colonies.

This omission is especially significant because the Norfolk Barbastelle Study Group has demonstrated that the Order Limits lie within overlapping Core Sustenance Zones associated with multiple colonies. Any individual hedgerow or woodland edge may therefore be important to several colonies simultaneously. Without mapping colony-specific movement patterns, it is impossible to determine which corridors can tolerate lighting and which cannot.

The concern is reinforced by the particular characteristics of the South Norfolk Claylands.

This is an exceptionally dark rural landscape.

Wood Green residents, local ecological recorders and parish representations all identify dark skies as one of the defining characteristics of the area. The Wood Green representation explains that darkness benefits both wildlife and people, that visitors are attracted to the area specifically because of its dark skies, and that construction lighting would fundamentally alter that character. Although this point was raised primarily in relation to residential amenity, it has direct ecological significance because the same darkness supports bat movement across the landscape.

Darkness functions as ecological infrastructure in exactly the same way as hedgerows or woodland edges.

The loss of darkness fragments habitat.

This is particularly important around Spring Wood and the converted Second World War bat hibernacula.

As discussed in Section 8.5, these structures provide year-round bat habitat immediately adjacent to retained Site 3 development. Construction compounds, vehicle movements, temporary lighting and operational infrastructure would all occur close to this sensitive bat resource.

The Applicant has not undertaken a hibernacula-specific lighting assessment.

Nor has it demonstrated that illumination associated with:

- compounds;
- construction traffic;
- welfare facilities;
- security requirements;
- maintenance activities;
- or emergency access

would avoid disturbance to bats using the woodland edge and converted shelters.

The omission is compounded by the findings of Tinsley et al. (2023).

The study demonstrated reduced bat activity associated with ground-mounted solar developments, including reduced activity along retained field boundaries. Although lighting was not identified as the sole causal mechanism, the research concluded that solar development changes the ecological functioning of field boundaries beyond simple habitat retention.

At East Pye, lighting represents one of several interacting mechanisms capable of producing precisely those behavioural changes.

Artificial lighting also interacts with the wider ecological network.

Many aquatic insects are attracted to artificial light.

The Environment Agency has separately highlighted concerns regarding the interaction between aquatic insects and solar infrastructure, recognising that alterations to aquatic invertebrate behaviour may affect wider food webs.

Where lighting attracts insects away from rivers, ponds or woodland edges, it may simultaneously alter prey availability for bats while concentrating insects around operational infrastructure where predation risk differs.

These interactions have not been assessed.

Likewise, the Applicant has not evaluated how lighting may alter:

- predator-prey relationships;
- nocturnal bird behaviour;
- moth communities;
- pollinator activity;
- or ecological function along watercourses.

Instead, lighting is considered primarily in engineering terms.

This compartmentalised approach fails to recognise that the nationally important bat assemblage depends upon the continued ecological integrity of the wider nocturnal landscape.

The Forestry Commission's representation provides additional support for this concern.

It expressly welcomes the intention to avoid illuminating ancient woodland but does so because lighting is recognised as capable of causing indirect deterioration of irreplaceable habitats.

That acknowledgement illustrates the wider point.

If lighting is sufficiently harmful to require protection of woodland, it must also be assessed in relation to the woodland-dependent species using those habitats.

The Applicant's assessment does not bridge that gap.

Norfolk Wildlife Trust similarly identified lighting as one of the principal remaining ecological concerns, particularly where development approaches woodland edges, County Wildlife Sites and important bat habitat.

Its request that parts of Site 3 be removed from the Scheme reflected concern not merely about physical habitat loss but about the wider disturbance regime associated with infrastructure immediately adjoining Spring Wood.

The Applicant only partially accepted that recommendation.

Approximately half of the land parcel remains within the Scheme despite the ecological rationale for avoidance remaining unchanged.

This demonstrates a broader failure to apply the mitigation hierarchy.

The appropriate response to a nationally important light-sensitive bat landscape is first to avoid introducing permanent illumination into the most sensitive areas.

Instead, the Applicant has selected development locations adjoining key woodland habitat and then proposes to control lighting through future design.

That reverses the hierarchy established by EN-1.

The Environmental Statement also relies heavily upon the Outline Landscape and Ecological Management Plan and future lighting strategy to provide reassurance.

Those documents do not currently specify:

- maximum illuminance levels;
- lux thresholds along commuting corridors;
- mapped dark corridors;
- measurable performance standards;
- monitoring requirements;
- adaptive management triggers;
- remedial action where bat behaviour changes;
- or long-term governance arrangements throughout the sixty-year operational life.

Consequently, the effectiveness of the mitigation cannot presently be tested.

The Applicant has therefore not demonstrated that lighting impacts will be avoided, nor that the proposed controls will preserve the ecological functionality of the nationally important bat landscape.

Taken together, the Applicant's own bat surveys, Natural England's favourable conservation status guidance, the Norfolk Barbastelle Study Group's evidence, the Forestry Commission's concerns regarding woodland protection, Norfolk Wildlife Trust's recommendation to remove development adjacent to Spring Wood, the Wood Green evidence concerning dark skies and the findings of Tinsley et al. all point in the same direction.

Darkness is an essential ecological characteristic of this landscape.

The Scheme would replace a largely continuous dark rural environment with numerous temporary and permanent light sources distributed throughout the functional range of multiple barbastelle maternity colonies.

The Applicant has not demonstrated that those changes can be prevented through the outline mitigation proposed.

BEPS therefore submits that the ecological effects of artificial lighting have been materially underestimated. The reliance upon future lighting design, outline management plans and generic commitments to minimise illumination does not satisfy the requirements of EN-1 for effective, secured mitigation. Nor does it demonstrate that favourable conservation status of the nationally important bat assemblage will be maintained. The appropriate application of the mitigation hierarchy would have been to avoid locating major infrastructure within this highly sensitive nocturnal landscape rather than attempting to compensate for its industrialisation through post-consent lighting controls.

8.6.3 Construction disturbance: piling, vibration, traffic and noise

The Environmental Statement materially underestimates the ecological consequences of construction disturbance. While the assessment recognises that construction activities will generate noise, vibration, lighting and increased traffic, these effects are largely considered in isolation, are assessed primarily in relation to human receptors, or are deferred to outline management plans. There is no integrated assessment of how prolonged industrial construction activity would affect a landscape that the Applicant itself has identified as supporting a nationally important bat assemblage and multiple barbastelle maternity colonies.

This omission is particularly significant because the principal ecological receptors are not species that occupy isolated habitat patches. Barbastelles and many other woodland bats depend upon stable, undisturbed woodland landscapes connected by mature hedgerows and dark corridors. Construction activity therefore has the potential to affect ecological function across a much wider area than the footprint of the engineering works themselves.

The Applicant's construction programme includes extensive activities capable of generating sustained disturbance, including:

- pile installation for solar arrays and fencing;
- piling associated with substations and infrastructure where required;
- horizontal directional drilling;
- cable trenching;
- excavation and earthworks;
- road widening;
- construction compounds;
- haul roads;
- heavy goods vehicle movements;
- abnormal indivisible load deliveries;
- cranes and heavy plant;
- vegetation clearance;
- and prolonged human presence across multiple sites simultaneously.

These activities would occur over several years across a dispersed construction footprint extending throughout the Order Limits.

The Environmental Statement acknowledges that construction noise and vibration will occur but does not evaluate their consequences for the nationally important bat assemblage. Instead, ecological mitigation largely assumes that retained woodland, retained hedgerows and pre-construction checks will be sufficient to avoid significant effects.

That assumption is not supported by the evidence.

Failure to assess species-specific responses to construction disturbance

Barbastelles are recognised as one of Britain's most disturbance-sensitive bat species. Their ecology is characterised by repeated switching between tree roosts, strong reliance upon woodland structure, avoidance of illuminated environments and use of extensive commuting networks linking multiple roosts and feeding areas.

Despite this, the Environmental Statement contains no species-specific assessment of the consequences of:

- prolonged construction noise;
- repeated vibration;
- pile installation;
- heavy vehicle movements;
- road widening adjacent to woodland;
- construction compounds close to known commuting routes;
- or simultaneous disturbance occurring across multiple colony home ranges.

The Applicant instead relies upon generic construction controls applicable to many development types.

That approach might be appropriate where ecological receptors comprise widespread generalist species occupying relatively robust habitats.

It is not appropriate where the Applicant's own surveys establish a nationally important bat assemblage containing widespread barbastelle activity within overlapping maternity colony landscapes.

The issue is not whether construction noise exceeds a particular decibel threshold.

The issue is whether repeated disturbance alters bat behaviour sufficiently to reduce use of established commuting routes, feeding areas, maternity support habitat or hibernation sites.

The Environmental Statement contains no assessment capable of answering that question.

Spring Wood and the converted WWII bat hibernacula

The failure is particularly evident around Spring Wood.

As discussed in Section 8.5, the woodland lies adjacent to former Second World War bomb shelters that were deliberately converted into bat hibernacula. Those structures support multiple bat species and form part of a wider woodland network used by barbastelles and other woodland bats.

The Applicant has not assessed construction disturbance in relation to those hibernacula.

There is no assessment of:

- vibration transmission through the surrounding geology;
- disturbance during hibernation;
- repeated heavy vehicle movements immediately adjacent to the woodland;
- effects of construction compounds;
- interactions between lighting, vibration and traffic;
- or cumulative impacts arising from prolonged activity beside a known bat refuge.

The significance of this omission is reinforced by the findings of Tinsley et al. (2023).

The peer-reviewed study found that several of the bat taxa associated with the Spring Wood landscape—including Myotis species, brown long-eared bats (Plecotus), serotine and soprano pipistrelle—showed reduced activity at ground-mounted solar developments.

The Spring Wood landscape therefore contains precisely those taxa for which the published evidence already indicates sensitivity to solar development.

Rather than responding to that evidence through avoidance, the Applicant proposes prolonged construction immediately adjoining this important bat resource.

Pile driving and vibration

Construction vibration has received remarkably little ecological consideration despite its obvious relevance.

The Environmental Statement continues to allow pile installation within the construction envelope. Although alternative installation methods may be used in some locations, the application does not remove percussive piling from the authorised development.

The ecological implications have not been properly assessed.

Percussive piling can generate repeated impulsive vibration transmitted through the ground, with the extent of propagation depending upon the installation method, ground conditions, distance and receptor characteristics. Unlike continuous background noise, impulsive vibration has the potential to disturb roosting animals repeatedly throughout the construction period.

The Applicant provides no analysis of:

- vibration reaching woodland roosts;
- disturbance of maternity colonies;
- disturbance of hibernacula;
- repeated vibration affecting tree-roost occupancy;
- behavioural avoidance;
- or cumulative vibration arising from simultaneous construction activities.

This omission is particularly important given the geology of the area. Large parts of the Scheme overlie chalk and permeable superficial deposits through which both groundwater and vibration may propagate differently from heavier clay soils.

No site-specific modelling has been presented to demonstrate that vibration associated with piling would not affect nearby woodland habitats or underground bat refuges. South Norfolk Council has itself recognised this issue. Its consultation response specifically recommends that percussive piling should not be used and that screw piles should be adopted wherever practicable because of the environmental effects associated with conventional piling. The Council's concern is not limited to human amenity. It reflects the wider ecological sensitivity of the landscape.

Despite that advice, the Applicant has not removed pile driving from the Scheme nor demonstrated that any remaining use would avoid significant ecological disturbance.

Construction traffic and repeated disturbance

The ecological assessment also underestimates the effects of construction traffic. The transport assessment focuses primarily upon highway capacity and residential amenity. It does not evaluate construction traffic as a sustained ecological disturbance occurring across a connected landscape.

Heavy goods vehicles, abnormal indivisible loads and construction traffic would repeatedly use:

- ancient lanes;
- woodland-edge roads;
- hedgerow corridors;
- rural crossings;
- access tracks;
- and temporary haul routes.

The ecological consequences include:

- repeated noise;
- repeated headlight illumination;
- vibration;
- dust;
- air turbulence;
- increased human presence;
- and interruption of nocturnal movement.

These effects occur not once but thousands of times throughout the construction programme. Many of the most important bat commuting routes identified by the Applicant follow the same hedgerows and rural lanes proposed for construction access. Yet the Environmental Statement contains no quantitative assessment of repeated disturbance to commuting bats arising from prolonged traffic.

Similarly, the assessment does not consider whether repeated traffic may alter the behaviour of breeding birds, mammals or other nocturnal wildlife occupying roadside habitats.

Simultaneous construction across the Scheme

The Applicant's approach also fails to recognise the cumulative nature of disturbance. Construction will not occur at a single isolated location. Multiple compounds, access routes, cable corridors, substations and working areas will operate simultaneously across the Order Limits.

Consequently, bats displaced from one construction area may encounter disturbance again at alternative routes elsewhere within the same landscape. This is particularly important given the overlapping Core Sustenance Zones associated with several barbastelle maternity colonies.

The cumulative consequence may be progressive reduction in the availability of undisturbed commuting and foraging habitat across the colony home ranges.

The Environmental Statement assesses construction activities largely on a parcel-by-parcel basis. It does not evaluate the effects of simultaneous disturbance across the entire ecological network.

Interaction with other impact pathways

Construction disturbance cannot properly be separated from the other ecological changes introduced by the Scheme.

Noise interacts with:

- artificial lighting;
- hedgerow severance;
- fencing;
- altered prey availability;
- construction traffic;
- and human activity.

Together these pressures may substantially alter the suitability of retained habitat even where direct habitat loss is limited.

For example:

- a retained hedgerow may remain physically intact but become less suitable because it is repeatedly illuminated by vehicles, bordered by construction traffic and crossed by temporary haul roads;
- a retained woodland edge may experience vibration, lighting and prolonged human activity while simultaneously losing adjoining feeding habitat;
- a hibernaculum may remain structurally undamaged but become functionally degraded through repeated disturbance during critical seasonal periods.

The Applicant has not assessed these interacting effects.

Instead, each impact pathway is considered separately.

This compartmentalised approach does not reflect how wildlife experiences disturbance.

Reliance upon future management plans

The Applicant relies heavily upon the Outline Construction Environmental Management Plan, Ecological Clerk of Works and future method statements to address construction impacts.

Those documents contain useful principles but they do not presently specify:

- exclusion distances from maternity colonies;
- vibration limits;
- species-specific noise thresholds;
- seasonal restrictions around hibernacula;
- colony-specific working methods;
- monitoring protocols;
- behavioural triggers;
- adaptive management measures;
- or enforceable contingency arrangements if disturbance proves greater than predicted.

Nor has the Applicant demonstrated that such measures would be capable of maintaining favourable conservation status for the nationally important bat assemblage identified in its own surveys.

Construction disturbance is therefore not simply being managed through detailed mitigation. It is being deferred.

The Examination is consequently being asked to conclude that impacts will be insignificant before the detailed measures needed to support that conclusion have been developed or tested.

Failure to apply the mitigation hierarchy

The shortcomings of the construction assessment again illustrate the failure to apply the mitigation hierarchy correctly.

Where nationally important bat habitat, known maternity colonies and converted hibernacula occur within the proposed development area, the first question should be whether construction can be avoided in those locations.

Instead, the Applicant has retained major construction activity adjacent to sensitive ecological receptors and seeks to control its effects through later management.

Norfolk Wildlife Trust reached the opposite conclusion. It expressly requested removal of the Spring Wood land parcel because of its ecological importance.

Although the Applicant subsequently reduced the area affected, approximately half of the original parcel remains within the Scheme.

The principal ecological conflict therefore remains unresolved.

Conclusion

The Applicant has not demonstrated that construction disturbance will avoid significant effects on the nationally important bat assemblage or the wider ecological network.

No species-specific assessment has been undertaken of prolonged construction noise, vibration, pile driving, heavy traffic or simultaneous disturbance across multiple maternity colony landscapes.

The Spring Wood hibernacula, known woodland roosts and connected commuting corridors receive no dedicated construction disturbance assessment despite representing one of the most sensitive bat resources within the Scheme.

The reliance upon outline management plans, future Ecological Clerk of Works supervision and later method statements does not satisfy the requirements of EN-1 for effective, secured mitigation. Nor does it demonstrate that the statutory tests relating to European Protected Species can ultimately be met.

BEPS therefore submits that the ecological effects of construction disturbance have been materially underestimated. In the absence of detailed, species-specific assessment demonstrating that construction noise, vibration, traffic and associated disturbance will not impair the functioning of the nationally important bat landscape throughout construction, the Applicant has failed to establish that these impacts can be avoided or adequately mitigated. This weighs strongly against the grant of development consent.

8.6.4 Solar infrastructure, prey availability and ecological function

The Applicant's assessment of ecological effects focuses predominantly on the direct footprint of infrastructure and the retention or creation of habitats. It gives insufficient consideration to the more subtle ecological processes through which large-scale solar developments alter habitat function, food availability and species behaviour. This is a significant omission because the East Pye landscape supports a nationally important bat assemblage whose ecological value depends not simply upon the presence of hedgerows and woodland, but upon the functioning of complex food webs across the wider agricultural landscape.

The Applicant assumes that because mature hedgerows, woodland blocks and many watercourses will remain physically present, their ecological function will also remain. However, ecological function depends upon the continued interaction between vegetation, invertebrates, aquatic systems, birds, mammals and wider ecosystem processes. Those interactions can be altered substantially without the physical removal of habitat.

The Applicant has not adequately assessed those functional changes.

Changes to insect abundance and prey availability

The Environmental Statement contains relatively little assessment of how solar infrastructure may alter the abundance, distribution and behaviour of invertebrates which form the primary prey base for bats and many farmland birds.

This omission is particularly important because the Applicant's own surveys demonstrate exceptionally high bat activity throughout the Scheme. Such activity necessarily reflects an abundant and spatially diverse prey resource. If prey distribution changes significantly, bat activity and habitat use may also change even where the structural habitat remains intact.

Ground-mounted solar developments modify the physical environment in numerous ways.

Large panel arrays alter:

- solar radiation reaching the ground;
- soil temperature;
- soil moisture;
- vegetation structure;
- wind movement;
- humidity;
- frost formation;

- and local microclimate.

These environmental changes influence both plant communities and the abundance and composition of invertebrate populations.

The Applicant has assumed that extensive grassland beneath panels will generally enhance biodiversity. That conclusion is not supported by detailed evidence specific to this landscape.

Grassland developing beneath closely spaced solar panels experiences substantially different environmental conditions from existing field margins and open grassland. Shading patterns, altered moisture regimes and maintenance practices influence plant composition and consequently affect the insects dependent upon those plants.

For insectivorous bats such as barbastelle, Myotis species, brown long-eared bats and Daubenton's bats, these changes have direct ecological consequences.

The Applicant has not modelled whether the prey resource supporting the nationally important bat assemblage would remain functionally equivalent following construction.

Peer-reviewed evidence concerning bat responses to solar development

This omission is particularly striking in light of the findings of Tinsley et al. (2023). That peer-reviewed study examined bat activity across paired solar developments and comparable control sites and found statistically significant reductions in bat activity for six of the eight species analysed.

Importantly, reduced activity was not confined to open areas beneath solar panels. Several species also exhibited reduced activity along retained field boundaries.

This finding is directly relevant to East Pye because the Applicant's principal mitigation strategy relies upon retaining existing hedgerows while introducing solar infrastructure into the adjoining fields.

If retained field boundaries experience reduced use despite remaining physically intact, then the Applicant's assumption that hedgerow retention preserves ecological function becomes substantially weaker.

The mechanisms responsible remain an active area of scientific research. The authors discuss possible explanations including:

- altered insect communities;
- changes in vegetation structure;
- modified microclimates;
- disruption of commuting behaviour;
- altered acoustic environments;
- avoidance of extensive reflective surfaces;
- and broader behavioural responses to industrialised landscapes.

The precise mechanism is less important than the consistent ecological outcome. Solar development changes how bats use landscapes.

The Applicant has not demonstrated why East Pye, despite supporting a nationally important bat assemblage and multiple maternity colonies, should be expected to behave differently.

Indeed, if anything, the ecological consequences are likely to be more significant because the baseline value is considerably higher than that of many ordinary agricultural sites.

Aquatic insects and food-web disruption

The interaction between solar infrastructure and aquatic ecology provides another important example of functional effects that have not been adequately assessed.

The Environment Agency has specifically identified concern regarding the attraction of aquatic insects to solar panels. Many aquatic insects navigate using polarised light reflected from water surfaces. Solar panels may produce optical characteristics capable of attracting emerging insects away from rivers, ponds and streams. Where this occurs, several ecological consequences may follow.

Adult insects may:

- waste energy attempting to oviposit on unsuitable surfaces;
- suffer increased mortality;
- fail to reproduce successfully;
- become concentrated in artificial locations;
- or become unavailable to predators occupying their normal feeding habitats.

The effects extend beyond the insects themselves.

Aquatic insects form an important food source for:

- Daubenton's bats;
- Myotis species;
- pipistrelles;
- birds;
- amphibians;
- fish;
- and many riparian predators.

Consequently, disruption of aquatic insect emergence has the potential to propagate through the wider food web.

The Environment Agency's representation expressly identifies this issue and requests wider riparian buffers while recognising that the interaction has not been fully assessed. The Applicant

does not provide a species-specific assessment of this pathway. Instead, it assumes that maintaining watercourse buffers will adequately protect aquatic ecology.

Buffer distances alone do not answer behavioural effects associated with reflected light or altered insect movement.

Watercourses as ecological corridors

The River Tas, Hempnall Beck, Starston Brook, Broome Beck and associated ditch systems provide much more than aquatic habitat.

They function simultaneously as:

- bat commuting routes;
- insect production systems;
- bird feeding habitat;
- mammal corridors;
- amphibian habitat;
- botanical corridors;
- and hydrological connections linking the wider landscape.

The Applicant's assessment frequently separates these functions into different technical chapters. Ecologically, they operate together.

- Changes affecting aquatic productivity may alter prey availability for bats.
- Changes affecting riparian vegetation may influence commuting routes.
- Changes affecting hydrology may alter invertebrate communities.

The Environmental Statement contains no integrated ecosystem assessment examining these interacting relationships. Instead, aquatic ecology, terrestrial ecology, hydrology and bats are considered largely independently. That compartmentalised approach underestimates ecological complexity.

Effects on woodland-edge ecology

Woodland edges are among the most productive ecological habitats within the South Norfolk Claylands.

They support:

- high insect abundance;
- flowering shrubs;
- sheltered microclimates;
- mature trees;
- deadwood;
- and structurally diverse vegetation.

The Applicant frequently proposes woodland-edge buffering as mitigation. However, woodland-edge ecology depends upon the gradual transition between woodland and surrounding land uses. Introducing extensive solar arrays immediately adjacent to woodland fundamentally alters that transition.

Potential consequences include:

- modified air movement;
- altered humidity;
- changes in edge vegetation;
- altered insect communities;
- increased disturbance;
- lighting;
- maintenance activity;
- and changed predator-prey interactions.

The Forestry Commission has recognised these wider edge effects by expressing concern about woodland isolation and recommending expanded woodland creation around vulnerable ancient woods.

The Applicant has not demonstrated that simple thirty-metre buffers preserve woodland-edge ecological function.

Field margins and ecological productivity

The South Norfolk Claylands are characterised by narrow field margins, species-rich hedgerows and remnant grassland strips. These features support disproportionately high ecological productivity compared with the surrounding arable fields. Many bat species forage intensively along these edges because insects concentrate there.

The Applicant assumes that retaining margins while converting adjoining fields into solar arrays will largely preserve ecological function. That assumption has not been demonstrated.

Solar arrays alter:

- wind patterns;
- vegetation management;
- grazing regimes;
- shading;
- maintenance access;
- and human disturbance.

Each of these changes may influence insect abundance within adjoining margins.

The Applicant has not assessed whether retained margins will continue to produce equivalent prey resources following construction.

Interaction with agricultural stewardship

This issue also relates directly to the existing Countryside Stewardship habitats.

Many of the habitats supporting the current prey base have been actively managed for biodiversity since 2013 under publicly funded stewardship agreements.

Those agreements have increased:

1. floral diversity;
2. seed resources;
3. invertebrate abundance;
4. habitat for ground-nesting birds: lapwing and skylarks
5. and habitat connectivity.

The Applicant proposes replacing functioning stewardship habitats with newly created grassland designed partly to generate Biodiversity Net Gain.

There is no evidence demonstrating that newly established habitat beneath solar panels will immediately replicate the ecological productivity developed through over a decade of conservation management.

The BNG calculations therefore cannot be assumed to represent equivalent prey availability for protected species.

Failure to assess ecosystem function

Perhaps the greatest weakness in the Applicant's assessment is that it considers receptors separately rather than examining ecosystem function.

The nationally important bat assemblage exists because of the interaction between:

- ancient hedgerows;
- woodland;
- ponds;
- chalk streams;
- aquatic insects;
- terrestrial invertebrates;
- flowering margins;
- mature trees;
- grazing land;
- and long-established agricultural management.

Each component supports the others.

Removing or altering one component may produce cascading effects across the wider ecological network. The Applicant has not attempted to evaluate these ecosystem-scale interactions. Instead, the assessment focuses largely upon whether individual habitats remain present after construction.

Ecological function cannot be reduced to habitat presence alone.

Relationship to Biodiversity Net Gain

This omission also exposes one of the principal weaknesses in the Applicant's Biodiversity Net Gain case. The statutory biodiversity metric measures habitat area, distinctiveness, condition and strategic significance.

It does not measure:

- prey availability;
- food-web resilience;
- insect productivity;
- ecological interactions;
- predator-prey relationships;
- or behavioural changes in highly mobile protected species.

Consequently, a positive biodiversity metric cannot demonstrate that the nationally important bat assemblage identified by the Applicant will continue to function at favourable conservation status. Nor can it confirm that the skylarks and lapwing breeding in these stewardship arable fields will continue to do so once they have been stripped during construction and converted to grassland beneath solar panels. Indeed, research by Gwent Wildlife Trust has demonstrated that lapwing have not adopted the mitigation area of the Gwent Levels solar farm and have not returned to the area post construction. They also record reduced insect numbers having an impact on their bat populations.

The Applicant has repeatedly relied upon predicted habitat gains while providing little evidence that existing ecological processes will remain intact.

Failure to apply the mitigation hierarchy

The ecological processes described above reinforce the importance of the mitigation hierarchy.

Where the functioning of a nationally important ecosystem depends upon interactions that are not fully understood and cannot readily be recreated, the appropriate response is avoidance.

Instead, the Applicant has selected a landscape whose ecological value derives from long-established ecosystem function and seeks to justify development through habitat retention, future habitat creation and Biodiversity Net Gain calculations.

That approach reverses the hierarchy required by EN-1.

Rather than demonstrating that ecological processes will remain intact, the Applicant assumes that replacement habitat will compensate for changes whose magnitude has not been quantified.

Conclusion

The Applicant has not demonstrated that the ecological functioning of the East Pye landscape will be maintained following construction of the Scheme.

It has not adequately assessed:

- changes to prey availability;
- changes to insect communities;
- aquatic insect attraction to solar panels;
- woodland-edge ecological processes;
- field-margin productivity;
- ecosystem interactions;
- or the implications of these changes for the nationally important bat assemblage.

The findings of Tinsley et al., the Environment Agency's concerns regarding aquatic insects, the Applicant's own nationally important bat surveys, and the wider evidence concerning ecosystem connectivity all indicate that ecological function may change substantially even where habitat is physically retained.

The Environmental Statement does not adequately address these processes. Consequently, the Applicant has failed to demonstrate that the Scheme will preserve the ecological function of the nationally important bat landscape or that these impacts can be effectively mitigated. In accordance with EN-1 and the mitigation hierarchy, the appropriate response is avoidance rather than reliance upon generic habitat creation and Biodiversity Net Gain metrics.

8.6.5 Landscape fragmentation by fencing, roads and operational infrastructure

The Environmental Statement consistently underestimates the ecological consequences of fragmentation because it treats most infrastructure elements as having only localised effects. In reality, East Pye Solar would introduce a continuous network of fencing, access roads, substations, BESS compounds, CCTV infrastructure, maintenance tracks, drainage works, cable corridors and security infrastructure across an existing connected ecological landscape. The ecological significance of these features lies not simply in their individual footprints, but in their cumulative effect on the permeability, resilience and long-term functioning of the landscape.

This is particularly important because the Applicant's own surveys demonstrate that the ecological value of the Scheme area is fundamentally landscape-scale. The nationally important bat assemblage, overlapping barbastelle maternity-colony Core Sustenance Zones, connected hedgerow network, chalk-stream tributaries, ancient woodland complexes and widespread priority habitats all indicate that ecological function depends upon the continued movement of species through the landscape. Fragmentation therefore becomes one of the principal ecological impact pathways.

The Applicant's assessment largely considers habitat loss in terms of hectares removed. That is not the correct ecological question. The relevant question is whether the landscape will continue to function as a connected ecological system following sixty years of industrial development. On the evidence before the Examination, that has not been demonstrated.

Fragmentation is recognised as a principal ecological threat

The importance of fragmentation is not merely a matter of professional opinion. It is consistently recognised throughout the evidence submitted to this Examination.

The Forestry Commission identifies fragmentation as one of the greatest threats to ancient woodland, particularly where small woodland blocks become isolated within the wider landscape. In relation to East Pye Solar, it expresses specific concern regarding Doyly's Grove and especially Ringers Grove, observing that Ringers Grove would become almost completely enclosed by the development, with Market Lane forming the only remaining undeveloped boundary. The Forestry Commission explains that woodland isolated within development becomes progressively less resilient over time and recommends increasing woodland connections rather than relying solely upon buffer strips.

That advice has wider significance than woodland management. Ancient woodland does not exist independently of its surrounding landscape. Its ecological value depends upon the exchange of species, genetic material and ecological processes with adjacent habitats. The same principle applies to bats, woodland birds, invertebrates, fungi, mammals and countless other species.

The Applicant's mitigation strategy retains woodland while fundamentally altering the surrounding landscape within which that woodland functions. The Forestry Commission's evidence therefore directly supports BEPS' contention that landscape connectivity, rather than simple woodland retention, is the critical ecological issue.

Security fencing and ecological permeability

One of the least adequately assessed elements of the Scheme is the cumulative effect of fencing. The development would require extensive lengths of permanent security fencing around:

- solar fields;
- BESS compounds;
- substations;
- customer substations;
- National Grid infrastructure;
- operational compounds;
- and associated infrastructure.

Although the fencing may be designed to allow passage for some small mammals, its cumulative ecological effects extend well beyond direct physical exclusion.

The Forestry Commission expressly raises concern regarding deer movement. It notes that large areas of farmland would be removed from existing deer ranges and warns that fencing may:

- isolate woodland;
- alter movement patterns;
- increase browsing pressure elsewhere;
- affect surrounding stewardship habitats;
- increase pressure on ancient woodland regeneration;
- and increase road collisions as displaced deer seek alternative routes.

These observations illustrate a wider ecological principle. Species move through landscapes using established behavioural pathways developed over many generations. Introducing extensive fencing changes those movement patterns. Where movement is constrained, ecological pressures are redistributed elsewhere.

The Environmental Statement assesses fencing largely as an engineering requirement. It does not provide a landscape-scale analysis of how fencing alters ecological permeability for the wider species assemblage. Nor does it adequately assess cumulative fragmentation resulting from fencing acting together with roads, compounds, lighting and other infrastructure.

Fragmentation of woodland landscapes

The consequences are particularly important around the ancient woodland network. The Applicant correctly proposes that direct loss of ancient woodland should be avoided. However, avoiding direct felling is not equivalent to avoiding ecological fragmentation. Woodland ecology depends upon:

- surrounding woodland edge;
- adjoining scrub;
- transitional habitats;
- connected hedgerows;
- adjacent grassland;
- insect-rich margins;
- and uninterrupted ecological links to the wider landscape.

These ecological relationships are particularly important for woodland bats. Barbastelles, brown long-eared bats, Myotis species and many woodland birds routinely move between woodland blocks using hedgerows, lanes, tree belts and riparian corridors. Where those connections become interrupted by:

- fencing;
- roads;
- compounds;
- substations;
- maintenance infrastructure;
- repeated vehicle movements;
- lighting;
- or security infrastructure,

the woodland itself may remain physically intact while its ecological function progressively declines. This concern is particularly acute for Spring Wood, Doyly's Grove, Ringers Grove and other woodland blocks located close to development parcels.

The Applicant has not undertaken a functional woodland connectivity assessment demonstrating that these ecological relationships will remain intact throughout construction, operation, replacement and decommissioning.

Roads, access tracks and operational infrastructure

The Scheme introduces a permanent network of operational infrastructure extending throughout the Order Limits. This includes:

- internal maintenance roads;
- permanent access tracks;
- junction improvements;
- widened rural lanes;
- substations;
- transformer compounds;
- BESS infrastructure;
- CCTV poles;
- security equipment;
- drainage infrastructure;
- and permanent operational compounds.

Each element occupies relatively little land individually. Collectively they transform the structure of the landscape. The Environmental Statement generally assesses these features separately. There is no integrated assessment examining how the combined infrastructure alters movement opportunities for wildlife across the entire Scheme. For example, a bat commuting along a hedgerow may encounter:

- a widened access road;
- security fencing;
- operational lighting;
- maintenance vehicles;
- CCTV columns;
- altered vegetation management;
- and increased human activity.

Each individual feature may be considered insignificant. Together they fundamentally alter the ecological character of that commuting corridor. The same applies to mammals, birds, reptiles and invertebrates moving through the landscape.

Long-term industrialisation of a historic landscape

The duration of fragmentation also requires greater attention. This is not a temporary construction project. The Scheme would industrialise the landscape for approximately sixty years, followed by a substantial period of decommissioning.

Throughout that time, ecological communities would experience:

- altered habitat configuration;
- altered movement opportunities;
- repeated maintenance;
- vegetation management;
- infrastructure replacement;
- security requirements;
- operational access;
- and periodic reconstruction.

The Applicant frequently describes habitat creation as if it will progressively offset these effects. However, fragmentation is not simply an issue of habitat quantity. It concerns the organisation of the landscape itself.

The historic South Norfolk Claylands developed over centuries as an interconnected ecological mosaic. Replacing that mosaic with compartmentalised solar fields enclosed by fencing and linked by infrastructure represents a fundamental change in landscape structure.

No amount of newly planted hedgerow can immediately recreate centuries of ecological connectivity.

Cumulative interaction with other ecological pressures

Fragmentation cannot be assessed independently of other impact pathways. It interacts continuously with:

- artificial lighting;
- construction disturbance;
- altered prey availability;
- hydrological change;
- tree decline;
- road widening;
- cable corridors;
- and changing land management.

For example:

A woodland enclosed by fencing may also experience:

- increased lighting;
- altered insect abundance;
- repeated maintenance activity;
- construction vibration;
- and modified groundwater conditions.

Each effect reinforces the others. The Applicant's assessment largely considers these impacts chapter by chapter. Wildlife experiences them simultaneously.

This cumulative interaction is especially important for barbastelles. The Applicant's own surveys establish that the nationally important bat assemblage depends upon movement throughout the Scheme. Fragmentation occurring simultaneously with lighting, disturbance and altered prey availability is considerably more significant than any one pressure considered in isolation.

The Environmental Statement does not evaluate these cumulative behavioural consequences.

Biodiversity Net Gain does not address fragmentation

The Applicant relies heavily upon Biodiversity Net Gain calculations to demonstrate ecological enhancement. However, the statutory biodiversity metric principally measures habitat area, distinctiveness and condition. It does not measure:

- landscape permeability;
- connectivity;
- fragmentation;
- commuting routes;
- woodland enclosure;
- behavioural avoidance;
- metapopulation function;
- or ecological resilience.

Consequently, positive habitat-unit calculations do not demonstrate that fragmentation has been avoided.

This distinction is recognised by the Forestry Commission. Its recommendation is not simply to plant more woodland. It recommends enlarging woodland blocks and strengthening ecological connectivity because habitat area alone does not resolve fragmentation.

Similarly, the South Norfolk Tree Warden Network identifies mature hedgerows and trees as ecological infrastructure whose function cannot be replicated through simple replacement planting.

The Applicant's reliance upon Biodiversity Net Gain therefore does not answer the principal ecological concern.

Failure to apply the mitigation hierarchy

The treatment of fragmentation again illustrates the Applicant's failure to apply the mitigation hierarchy correctly.

The first stage of the hierarchy is avoidance.

Where nationally important ecological networks exist, infrastructure should be located so as to avoid severing those networks wherever possible.

Instead, the Applicant has selected a layout extending across multiple connected ecological corridors and then proposes to mitigate fragmentation through:

- retained hedgerows;
- additional planting;
- biodiversity enhancement;
- ecological management;
- and future monitoring.

That approach assumes fragmentation can be repaired after it has occurred. The evidence before the Examination indicates otherwise.

The Forestry Commission, Norfolk Wildlife Trust, the South Norfolk Tree Warden Network, local ecological evidence and the Applicant's own bat surveys all demonstrate that the ecological value of this landscape derives from long-established connectivity. Once fragmented, that connectivity cannot simply be recreated through post-development habitat enhancement.

Conclusion

The Applicant has materially underestimated the effects of landscape fragmentation.

The ecological consequences of fencing, operational roads, substations, access infrastructure, woodland enclosure, security measures and long-term industrialisation have not been assessed as components of a single interacting landscape. Instead, they have been considered individually, leading to systematic underestimation of cumulative effects.

The evidence submitted by the Forestry Commission, Norfolk Wildlife Trust, the South Norfolk Tree Warden Network and other consultees consistently identifies fragmentation as one of the principal ecological risks associated with the Scheme. The Applicant's own bat surveys demonstrate why: the nationally important bat assemblage depends upon movement through an extensive, connected landscape rather than isolated habitat parcels.

The Applicant has not demonstrated that this landscape will remain functionally connected following construction, operation, replacement and decommissioning. Nor has it shown that the fragmentation created by fencing, infrastructure and operational management can be effectively mitigated or compensated through Biodiversity Net Gain or future ecological management.

BEPS therefore submits that the effects of landscape fragmentation have been substantially underestimated. The Scheme conflicts with the mitigation hierarchy because it fails to avoid fragmentation of a nationally important ecological network and instead relies upon generic enhancement measures that do not address the underlying loss of ecological connectivity. This represents a fundamental ecological objection to the Scheme and provides a further reason why development consent should be refused.

8.6.6. Mitigation and BNG insufficient

The applicant cannot mitigate:

- Loss of maternity roost functionality
- Landscape-scale connectivity
- CSZ integrity

BNG proposals cannot replace:

- Mature woodland roost features
- Established bat movement networks

Examination consequence

These are not matters which can now be characterised as acceptance-stage deficiencies. The relevant question is whether the outstanding ecological evidence is sufficiently complete for the ExA to reach a robust conclusion on likely significant effects, mitigation and protected-species implications before making its recommendation. Where information is still needed to determine whether development can be avoided, relocated or made environmentally acceptable, that information goes to the consentability of the authorised envelope rather than merely to post-consent implementation.

ExQ1 now places the adequacy of the bat baseline directly in issue. The ExA asks Natural England whether the Applicant has established an adequate bat baseline, including in relation to barbastelle and woodland adjoining the Order Limits. That question is significant because the remaining issue is not merely whether barbastelles are present; the Applicant's own evidence already establishes a nationally important assemblage and widespread barbastelle activity. The unresolved question is whether the survey evidence is sufficient to identify the functional maternity-colony landscape, roost network, principal commuting routes and foraging areas which need to be protected before the final layout is fixed.

Closing statement

The scheme is located within a confirmed, multi-colony barbastelle metapopulation, with overlapping Core Sustenance Zones across the entire site. In the absence of a complete baseline and lawful assessment, the environmental effects cannot be understood and lawful consent cannot be granted.

Natural England's definition of Favourable Conservation Status for barbastelle bats confirms that the species is highly light-averse and dependent on dark, connected landscapes for foraging and movement between colonies. Artificial lighting is identified as a growing national threat, fragmenting habitats, reducing prey availability, and disrupting connectivity between maternity colonies.

The East Pye Solar scheme introduces permanent sources of artificial lighting across the entirety of a confirmed barbastelle maternity landscape, within overlapping Core Sustenance Zones. This will result in fragmentation of dark corridors, disruption of commuting routes, and degradation of foraging habitat at a landscape scale.

Natural England further states that favourable conservation status requires protection of existing roosts, maintenance of connectivity, and an increase in suitable roosting habitat. The proposed development directly conflicts with these requirements by introducing long-term disturbance, habitat fragmentation, and lighting into a functionally connected woodland network supporting maternity colonies.

In these circumstances, the present evidence does not demonstrate with sufficient confidence that the Scheme would be compatible with maintaining the affected barbastelle population at favourable conservation status. That creates a material unresolved issue for any future EPS licensing process and for the weight which can safely be placed on the Applicant's present mitigation case.

8.7 Ancient Woodland

8.7.1 Six ancient woodlands directly adjoining the Scheme

The concentration of ancient woodland immediately adjoining East Pye Solar is exceptional and must be treated as a defining constraint upon the Scheme, not as a collection of peripheral features capable of being protected by standard buffers. The Forestry Commission identifies six ancient woodlands directly adjacent to the proposed development:

- Saxlingham Grove — Ancient Semi-Natural Woodland;
- Doyly's Grove — Ancient Semi-Natural Woodland;
- Popes Wood — Plantation on an Ancient Woodland Site;
- Spring Wood — Plantation on an Ancient Woodland Site;
- Little Wood — Ancient Semi-Natural Woodland; and
- Ringers Grove — Ancient Semi-Natural Woodland.

Both Ancient Semi-Natural Woodland and Plantations on Ancient Woodland Sites are ancient woodland and therefore irreplaceable habitat. PAWS may have been replanted with non-native or plantation species, but its soils, seedbanks, fungi, hydrology, archaeological features and continuity of woodland cover retain characteristics developed over centuries. Its policy protection is not reduced because the present canopy has been modified. The Forestry Commission's

scoping advice accordingly emphasised that ancient woodland has been continuously wooded since at least 1600 and that the protection applies equally to ASNW and PAWS.

The absence of ancient woodland within the proposed panel footprint does not resolve the objection. National policy protects ancient woodland against both loss and deterioration, and EN-1 requires the direct and indirect effects of development upon ancient woodland and other irreplaceable habitats to be addressed during construction and operation. The relevant assessment must therefore extend beyond felling or excavation within the mapped woodland boundary. It must consider whether the Scheme would degrade the woodlands through fragmentation, enclosure, altered hydrology, dust, lighting, noise, vibration, edge effects, soil compaction, pollution, increased traffic and the loss of their ecological relationship with surrounding hedgerows, watercourses, field margins and other woodland blocks.

The Planning Inspectorate's Scoping Opinion required the ES to assess impacts upon the six ancient-woodland parcels adjoining the Scheme and to consider avoidance, mitigation and enhancement. The consultation advice recorded Popes Wood beside Sub-Site 7C, Doyly's Grove beside Sub-Site 7C, Saxlingham Grove beside Sub-Sites 7F and 7G, Little Wood beside Sub-Site 7H, Ringers Grove beside Site 8A, and Spring Wood beside Sub-Sites 3A and 3B. It also stressed that the standard 15-metre woodland buffer is only a minimum and may need to be increased where indirect effects extend further. The Applicant's own early site description likewise acknowledged that Doyly's Grove adjoins Sub-Site 7C on three sides, Popes Wood adjoins its southern side, Saxlingham Grove adjoins the Site 7 development and Little Wood lies beside Sub-Site 7H.

This spatial relationship is not incidental. The six woods lie within the same historic Claylands matrix of old hedgerows, mature trees, lanes, ditches, ponds, wet corridors and small fields that supports the Applicant's nationally important bat assemblage. Their ecological importance is therefore both intrinsic and relational. Each woodland contributes roosting, breeding, shelter and foraging habitat, while the surrounding landscape allows species, genetic material and ecological processes to move between woods. Development immediately around those woods threatens not only their individual condition but the functioning of the woodland network.

Saxlingham Grove

Saxlingham Grove is particularly sensitive because it is both ancient woodland and part of the Shotesham–Woodton Hornbeam Woods SSSI. The Applicant's scoping material describes that SSSI as a group of ancient coppice-with-standards woods that may once have formed part of a continuous primary hornbeam forest. It identifies Saxlingham Grove, Shotesham Little Wood, Hempnall Little Wood and Winter's Grove as representative examples of the distinctive south Norfolk and north-east Suffolk hornbeam-woodland type.

The woodland also supports a documented barbastelle maternity colony. Records summarised in the Applicant's bat assessment include roosts in ash, oak and dead oak trees, emergence counts and a lactating female. The woodland directly adjoins development parcels and forms part of the landscape in which the Applicant recorded widespread barbastelle activity. The significance of Saxlingham Grove therefore cannot be reduced to whether panel foundations fall outside a 30-

metre line. Its condition and protected-species function depend upon dark, connected and sufficiently undisturbed habitat extending beyond the woodland boundary.

Natural England's Relevant Representation identifies Shotesham–Woodton Hornbeam Woods SSSI as hydrologically connected to the Order Limits and accepts that damage can only be ruled out if the water-quality, pollution-prevention and runoff controls relied upon are followed and secured. It also identifies Saxlingham Grove itself as an ancient woodland hydrologically linked to the Scheme. That conditional position confirms that the woodland is exposed to indirect pathways and that its protection cannot be assumed merely from the absence of direct land take.

Doyly's Grove and Popes Wood

Doyly's Grove and Popes Wood are closely associated with Sub-Site 7C. The Applicant's own scoping report records Doyly's Grove adjacent to the south, west and north of the sub-site and Popes Wood adjacent to its south. This configuration places the proposed development within the immediate ecological setting of both woods and creates a particular risk of enclosure and loss of connectivity.

The Forestry Commission has expressed concern about Doyly's Grove because it is a relatively small ancient woodland and therefore especially vulnerable to isolation and climate-related pressures. Small ancient woods depend heavily upon their surrounding habitats. Their resilience is reduced where hedgerows, scrub, grassland and other wooded links are replaced by fenced infrastructure or where edge conditions become hotter, drier, brighter or more disturbed.

Natural England also identifies Popes Wood and Doyly's Grove as hydrologically connected ancient woodland. This is important because indirect deterioration may occur through changes in groundwater flow, surface runoff, sediment movement and soil moisture, as well as through visible physical disturbance. A buffer measured only as a horizontal distance from the woodland edge does not establish that those processes will be unaffected.

Norfolk Wildlife Trust identified both Popes Wood and Doyly's Grove as sensitive ancient woodland beside Site 7C and required large buffers, ecotones of shrubs and rough grassland, construction controls and evidence that the development would not have negative effects. The Trust's request for an ecotone is materially different from leaving a narrow strip of otherwise ordinary land between panels and woodland. A functioning ecotone should provide a graduated, semi-natural transition capable of supporting woodland-edge plants, invertebrates, birds and bats and of reducing abrupt microclimatic and disturbance effects.

Spring Wood

Spring Wood is a PAWS directly adjoining the Site 3 landscape. Its sensitivity is heightened by its relationship with Hempnall CWS, a known barbastelle roost and foraging area, and the converted Second World War bomb shelters used as bat hibernacula. The woodland and shelters form a combined year-round bat resource linked to the surrounding hedgerows, mature trees and fields.

Norfolk Wildlife Trust expressly sought removal of the development parcel adjoining Spring Wood because of the impacts upon ancient woodland, the County Wildlife Site and bats. The Applicant

removed only part of that parcel. The remaining development therefore continues to occupy the ecological setting of the woodland and the associated bat resource.

The appropriate question is not whether part-removal has reduced the number of panels. It is whether the remaining Scheme has avoided deterioration of Spring Wood and impairment of its woodland, roosting, hibernation, foraging and commuting functions. No complete radio-tracking, hibernacula-specific disturbance assessment or functional connectivity assessment has been produced to demonstrate that it has.

Little Wood

Little Wood is ASNW directly adjacent to the Site 7 and Site 8 development landscape. Its importance is reinforced by the Norfolk Barbastelle Study Group's confirmation of a maternity colony there. The woodland therefore functions not merely as a mapped ancient-woodland parcel but as an active breeding resource for a rare Annex II and European Protected Species.

The Scheme lies within the Core Sustenance Zone of that colony, and the Applicant recorded barbastelle activity throughout the surrounding Order Limits. Development beside Little Wood must consequently be assessed in terms of the continuing function of the maternity colony, including access to dark commuting routes, prey-rich margins, wet habitats and alternative woodland roosts. A retained woodland boundary and a nominal buffer do not establish that those functions will continue.

Norfolk Wildlife Trust identified the proximity of Site 7H to Little Wood, sought at least a 30-metre buffer and required that the buffer comprise a suitable shrub and rough-grassland ecotone rather than an unstructured stand-off distance.

Ringers Grove

Ringers Grove is ASNW beside Site 8A and is especially vulnerable because the development would surround it on three sides. Norfolk Wildlife Trust expressly identified this configuration, noted the presence of veteran trees and the proximity of Shotesham–Woodton Hornbeam Woods SSSI, and required the ES to demonstrate how connectivity between the woodlands would be maintained.

The Forestry Commission's later representation goes further, warning that Ringers Grove would become almost completely enclosed by development, with Market Lane providing the principal remaining open boundary. It identifies enclosure and isolation as long-term threats, particularly for a small ancient wood facing climate pressure, and recommends expansion and connection to create a more resilient woodland block with graduated woodland edge and scrub habitat.

That advice exposes the inadequacy of assessing Ringers Grove only by reference to direct loss. The Scheme may leave every mapped woodland tree standing and still cause deterioration by converting the woodland from part of a permeable rural network into an ecological island surrounded by panel arrays, fencing, roads and operational activity.

The six woods form a network, not six separate constraints

The ES does not adequately recognise the cumulative importance of having six irreplaceable woodland sites directly adjoining one development. Each woodland is assessed largely against the nearest parcel and proposed buffer. That approach fails to consider whether the combined Scheme would:

- reduce movement among the woodland blocks;
- interrupt hedgerow and riparian connections;
- isolate bat maternity colonies and satellite roosts;
- alter the hydrological conditions upon which woodland soils and ground flora depend;
- impose repeated lighting, noise, dust and traffic effects across the network;
- or reduce the woodlands' collective resilience over the Scheme's proposed lifetime.

The ancient woods of the South Norfolk Claylands are surviving components of a formerly more extensive historic woodland and hedgerow system. Their small size increases, rather than reduces, their dependence upon the surrounding ecological matrix. Professor Tom Williamson's Claylands evidence explains that woodland in this landscape has historically been connected through hedges, farmland trees, ponds, margins and other semi-natural features. The proper policy objective is to restore and reinforce that connectivity, not to preserve the mapped woodlands as fragments while industrialising the land between them.

The Applicant proposes approximately 25 hectares of new woodland planting and other habitat creation. That may provide future ecological value, but it does not establish avoidance of deterioration to the six existing ancient woods. Newly planted woodland cannot reproduce ancient woodland soils, fungi, seedbanks, veteran structures or long-established species relationships. Nor does planting elsewhere necessarily repair the enclosure of a particular woodland or preserve an existing bat route.

Natural England presently treats ancient woodland as a 'green' issue, but its position is expressly dependent upon the 30-metre buffers and associated protections being consistently recorded and secured in the LEMP, CEMP and DEMP. It also requires full BS5837-compliant survey, strict root protection, arboricultural supervision, no-dig methods, compaction prevention, dust and runoff control and micrositing. Natural England's absence of an objection is therefore not a finding that proximity to six ancient woods is environmentally immaterial. It is a conditional position based upon mitigation that must still be made consistent, detailed and enforceable.

BEPS submits that the six directly adjoining ancient woodlands must be treated as a scheme-wide irreplaceable-habitat constraint. Their protection cannot be demonstrated through the absence of direct felling or by drawing standard buffers around individual polygons. The assessment must establish that their condition, setting, hydrology, edge habitats, protected-species functions and connectivity with the wider Claylands network will not deteriorate throughout construction, operation, equipment replacement and decommissioning.

The Applicant has not yet made that demonstration. The concentration of six ancient woods immediately beside the development, several supporting or associated with barbastelle maternity and year-round bat habitat, is a strong indication that the Scheme has been located in the wrong

ecological landscape. Under the mitigation hierarchy, the first response should have been avoidance through site selection and removal of conflicting development areas, rather than enclosure of irreplaceable habitats accompanied by buffers and compensatory planting.

8.7.2 Woodland fragmentation, enclosure and loss of ecological function

The principal threat to the ancient woodlands adjoining East Pye Solar is not confined to direct felling or physical encroachment within their mapped boundaries. It is the long-term fragmentation, enclosure and degradation of the ecological network within which those woods have survived and continue to function.

The Applicant's own scoping work identified 29 areas of Ancient Woodland Inventory woodland within two kilometres of the principal sites, with six ancient woodland parcels directly adjoining the development. It also recorded native hedgerows throughout the sites, numerous ponds, hundreds of parcels of deciduous woodland and adjoining lowland fen and floodplain grazing marsh. The ecological question is therefore not whether six individual woodland polygons can be retained. It is whether those woods will continue to function as parts of a permeable woodland–hedgerow–watercourse network after the intervening and surrounding landscape has been occupied for approximately sixty years by panel arrays, substations, BESS infrastructure, access tracks, fencing, compounds, lighting and maintenance activity.

The Applicant has not demonstrated that they will.

Ancient woodland depends upon its surrounding landscape

Ancient woodland is irreplaceable because of the continuity and complexity accumulated within its soils, seedbanks, fungi, veteran trees, deadwood communities, hydrology and species assemblages over centuries. Those characteristics do not stop at a cartographic boundary. The ecological condition and resilience of a small woodland are strongly influenced by its surrounding land use, woodland-edge habitats and connections to other woods, hedgerows, trees, ponds and watercourses.

This is particularly important in the South Norfolk Claylands. Professor Tom Williamson's landscape history evidence explains that the Claylands historically supported an intricate network of small fields, species-rich hedges, farmland trees, ponds, commons, wide grassy lanes and woodland. Those features produced not merely habitat parcels but 'a wealth of connections between them'. The same evidence explains that hedges acted as habitat corridors, that ponds and ditches formed a connected seasonal water network, and that grassland verges and field margins extended the ecological web through the farmed landscape.

The surviving ancient woods are therefore remnants of, and nodes within, a much larger historic ecological system. Their small scale makes those external relationships more important, not less important. Small woodlands have a high proportion of edge habitat relative to interior habitat and are correspondingly more vulnerable to altered temperature, humidity, wind exposure, pollution, disturbance and isolation. Where surrounding hedges and semi-natural land remain intact, those pressures can be moderated and species can move between habitat patches. Where the

surrounding landscape is industrialised and enclosed, the woodland becomes progressively more isolated.

The Applicant's own landscape characterisation recognises that woodland groups, tree belts and hedgerow networks create enclosed wooded horizons and give structure and intimacy to the Site 8 and Site 10 landscapes. Those features cannot simultaneously be treated as integral to landscape structure and ecological value, yet regarded as unaffected merely because the woodland canopy is not felled.

The Forestry Commission's warning on fragmentation and enclosure

The Forestry Commission expressly identifies fragmentation as one of the greatest threats to ancient woodland. Its concern is not theoretical. It identifies Doyly's Grove and Ringers Grove as particularly vulnerable because they are small ancient woods whose relationship with the wider landscape would be altered by the Scheme. In the case of Ringers Grove, the development would almost completely enclose the woodland, leaving Market Lane as the principal remaining undeveloped boundary.

The Forestry Commission's earlier scoping advice stated that woodland isolation is a particular concern where development surrounds woodland on several sides or completely encloses it. It advised that hedgerows, individual trees and woodland must be considered in terms of their overall connectivity and recommended the creation or expansion of connected woodland blocks of at least five hectares to improve resilience across the whole landscape rather than planting isolated areas merely for screening.

That advice is highly material. It confirms that a woodland buffer cannot be considered independently from the configuration of the surrounding development. A retained strip immediately outside the woodland boundary does not overcome enclosure where the land beyond the strip is occupied by fencing, panels, tracks and operational infrastructure.

Nor does the proposal to plant new woodland elsewhere resolve the effect. The Forestry Commission's recommendation is for planting that expands and connects vulnerable woods in the correct locations, with graduated woodland-edge and scrub habitat. It is not an endorsement of generalised planting totals as compensation for enclosing ancient habitat.

Ringers Grove

Ringers Grove is the clearest example of the difference between physical retention and ecological protection.

The Applicant's own scoping material recorded Ringers Grove directly adjacent to the west and north of Sub-Site 8A. Norfolk Wildlife Trust described Site 8 as surrounding Ringers Grove on three sides and expressly required the ES to demonstrate how connectivity between woodland sites would be maintained. It recommended a minimum 30-metre buffer comprising a genuine ecotone of shrubs and rough grassland, not merely a stand-off distance between woodland and infrastructure.

The Forestry Commission's subsequent representation confirms that concern remains despite the proposed buffers and planting. Ringers Grove is a small ancient woodland and would be especially vulnerable to landscape isolation and climate pressures. Its almost complete enclosure would alter the relationship between the woodland and the fields, hedges and wooded links around it.

The potential consequences include:

- reduced movement between Ringers Grove and nearby woodland;
- loss or degradation of bat flight routes;
- altered deer and mammal movement;
- increased browsing pressure within or around the wood;
- changes to edge microclimate;
- increased exposure to lighting, noise and human activity;
- loss of adjoining invertebrate and foraging habitat;
- and reduced capacity for species to respond to climate change by moving through the landscape.

The issue cannot be answered by stating that no ancient woodland trees will be removed. The woodland may remain physically present while becoming ecologically diminished and isolated.

Doyly's Grove and Popes Wood

The same issue arises at Doyly's Grove and Popes Wood. The Applicant records Doyly's Grove adjacent to Sub-Site 7C on its southern, western and northern sides, with Popes Wood adjoining the same sub-site to the south. The development would therefore occupy land within and between the immediate settings of two ancient woodland sites.

Norfolk Wildlife Trust identifies both woods as sensitive County Wildlife Sites and ancient woodland and requires large buffers, woodland-edge ecotones and evidence that no negative effects would occur. The Forestry Commission remains particularly concerned about Doyly's Grove because its small size makes it vulnerable to isolation and climate change.

The configuration matters. A woodland with development along one distant boundary presents a different ecological risk from one bordered on several sides by a major energy scheme. At Doyly's Grove and Popes Wood, the proximity and extent of the development would alter the surrounding habitat matrix and could reduce the effective connection between the woods and the wider hedgerow and tree network.

The Applicant has not produced a woodland-network analysis demonstrating:

- the existing routes connecting Doyly's Grove and Popes Wood to other woods;
- the species using those routes;
- the effects of fencing, tracks and lighting upon those movements;
- how any new planting would maintain or improve the same connections;
- or the length of time before new woodland-edge habitat would become functionally effective.

Without that analysis, the conclusion that a 30-metre buffer avoids deterioration is not established.

Saxlingham Grove and Little Wood

Saxlingham Grove and Little Wood illustrate the close relationship between ancient woodland fragmentation and protected-species function.

Saxlingham Grove is part of the Shotesham–Woodton Hornbeam Woods SSSI, a group of ancient coppice-with-standards woodlands believed to represent remnants of a formerly more continuous hornbeam forest. The Applicant's scoping material describes the site as a distinctive south Norfolk woodland type and records the SSSI immediately adjacent to parts of Site 7. Saxlingham Grove also supports a documented barbastelle maternity colony.

Little Wood is ancient semi-natural woodland and supports a confirmed barbastelle maternity colony identified through Norfolk Barbastelle Study Group work. The Scheme lies within the colony's Core Sustenance Zone and within a wider landscape in which barbastelle activity was recorded throughout the Order Limits.

Fragmentation in these locations therefore has population-level implications. The woods are not simply static repositories of woodland habitat. They are active breeding sites within a connected maternity-colony landscape. Their continuing function depends upon access to:

- alternative tree roosts;
- dark hedgerows and treelines;
- riparian routes;
- prey-rich field margins;
- ponds and wetland;
- neighbouring woods;
- and sufficiently extensive foraging habitat.

A 30-metre strip around a maternity woodland does not preserve those functions where the landscape beyond it is fragmented or behaviourally avoided. For a light-averse and woodland-dependent species, a retained hedge interrupted by an access road or illuminated at a crossing may no longer provide an equivalent route.

The Applicant's own nationally important bat findings reinforce this point. The South Norfolk Tree Warden Network notes that 621 trees across the Order Limits have potential to support roosting bats and that the nationally important assemblage relies upon mature trees, tree lines, hedges and field margins. It accordingly describes those features as 'functional ecological infrastructure' and criticises the absence of a route-wide analysis of cumulative hedgerow severance, buffer disruption, lighting and the time required for replacement planting to become equivalent.

The protection of Saxlingham Grove and Little Wood therefore requires preservation of the network outside the woodland boundaries, not simply preservation of the trees within them.

Spring Wood

Spring Wood demonstrates the same issue in a year-round bat context. It is ancient woodland adjoining the remaining Site 3 development and is associated with a known barbastelle roost and foraging landscape. The converted Second World War bomb shelters immediately beside the woodland provide purpose-created bat hibernation habitat.

Norfolk Wildlife Trust sought removal of the relevant development parcel because of its relationship with Spring Wood, the County Wildlife Site and bats. Only part of the parcel was removed. The retained development therefore continues to fragment and industrialise the ecological setting of the woodland and hibernacula.

The woodland may remain standing, but its function can be reduced if bats encounter lighting, piling, vehicle activity, fencing or loss of foraging habitat when moving between the shelters, the woodland and the wider landscape. The Applicant has not shown that the remaining development preserves those year-round connections.

Physical and behavioural fragmentation

The ES appears to treat fragmentation principally as physical removal or severance of habitat. That is too narrow.

Woodland networks can be fragmented in at least two ways.

The first is physical fragmentation, caused by removal of trees or hedges, road and cable crossings, fencing and the replacement of permeable land with infrastructure.

The second is behavioural or functional fragmentation, where the physical feature remains but species cease or reduce their use because of:

- artificial lighting;
- noise and vibration;
- regular vehicle movement;
- human activity;
- altered prey availability;
- changed vegetation structure;
- increased exposure;
- or the cumulative perception of the surrounding land as unsuitable.

This distinction is especially important for bats. Tinsley et al. found reduced bat activity at ground-mounted solar sites, including reduced activity along retained field boundaries for some taxa. That evidence demonstrates that retaining the physical boundary does not necessarily retain its ecological use.

The same principle applies to woodland. A woodland buffered by grass but enclosed by arrays and fencing may remain mapped as ancient woodland and yet become less accessible, less productive or less suitable to the species that previously used it.

Edge effects and altered microclimate

Enclosure also changes the quality of woodland edges.

Woodland edges are dynamic transition zones. Their condition depends upon surrounding vegetation, shelter, humidity, light, soil moisture and management. The replacement of an open or semi-natural agricultural edge with panel arrays and infrastructure may alter:

- wind flow;
- shading;
- reflected heat;
- humidity;
- soil moisture;
- dust deposition;
- runoff;
- and the composition of edge vegetation and invertebrates.

These changes are especially significant for small woods, where a greater proportion of the habitat lies close to an edge.

The Applicant proposes 30-metre buffers to ancient woodland, but there is no site-specific evidence showing that 30 metres is sufficient to address every indirect pathway. Natural England and Forestry Commission standing advice treats 15 metres as a minimum and expressly recognises that larger buffers may be needed where effects extend farther, including traffic-related air pollution and construction dust.

A fixed buffer cannot substitute for assessment of the actual Zone of Influence. The necessary distance depends upon:

- the size and vulnerability of the woodland;
- topography and prevailing wind;
- the type and duration of construction activity;
- drainage and groundwater pathways;
- lighting design;
- the location of access tracks and compounds;
- and the ecological functions occurring beyond the woodland boundary.

Hydrological fragmentation

Woodland isolation is not only terrestrial. Natural England identifies several ancient woodlands as hydrologically connected to the Scheme and relies upon pollution-prevention, water-quality and runoff controls when reaching its present ‘green’ conclusion.

Changes to drainage, groundwater recharge, soil compaction, cable trenches and preferential flow paths may affect woodland soils and wet features even where excavation remains outside the

buffer. Ancient woodland ground flora, fungi and tree health may be sensitive to relatively small or gradual changes in water availability.

The Applicant has not provided a single integrated assessment showing how surface-water, groundwater and ecological connectivity will be protected for each of the adjoining ancient woods throughout construction, operation and decommissioning.

Deer fencing and redistributed ecological pressure

The Forestry Commission also identifies an indirect fragmentation pathway arising from extensive fencing. By excluding deer from large areas of existing farmland or constraining their customary routes, fencing may concentrate browsing and grazing pressure in surrounding woodlands, hedges and stewardship areas. It may also alter road-crossing patterns and increase collision risk.

This is a useful illustration of why effects cannot be confined to the land inside each solar field. The Scheme changes the movement of species across the wider area and may transfer ecological pressure into the very ancient woods the Applicant claims to protect.

The Applicant's ecology assessment does not contain a sufficiently detailed landscape-scale assessment of those displacement effects.

New planting does not remove the time lag or location problem

The Applicant relies in part upon approximately 25 hectares of proposed woodland planting, together with tree belts and scrub, to improve habitat connectivity.

BEPS does not dispute that well-designed and properly managed native planting could provide future ecological benefit. The problem is that the existence of new planting does not prove that deterioration of existing ancient woods has been avoided.

There are three reasons:

First, location matters. Planting used for visual screening may not reconnect the woodland blocks or maternity-colony routes most at risk. The Forestry Commission specifically advises that planting should connect existing woodland and create resilient blocks rather than be distributed as isolated screening features.

Secondly, time matters. Newly planted trees and scrub will take decades to develop woodland structure, sheltered edge conditions, deadwood, cavities, fungal relationships and an associated invertebrate community. Harm arising from enclosure begins at construction and cannot be cancelled by habitat that may become effective later.

Thirdly, ancient woodland is not reproducible. New planting cannot replace ancient woodland soils, seedbanks, archaeology, veteran structures and continuous ecological history. It may supplement the network but cannot compensate for deterioration of the ancient habitat itself.

Absence of a scheme-wide woodland connectivity assessment

The Applicant has not supplied an adequate scheme-wide assessment of woodland connectivity.

Such an assessment should identify:

- all ancient, priority and other woodland within the Zone of Influence;
- existing hedgerow, tree-line, riparian and grassland links;
- the species and ecological functions dependent upon each connection;
- physical and behavioural barriers introduced by the Scheme;
- the combined effects of arrays, roads, cables, fencing, lighting and construction;
- the effects of other plans and projects;
- the ecological purpose and maturity timetable of every proposed connection;
- measurable standards by which continued connectivity would be judged;
- and remedial action if monitoring identifies reduced use or woodland decline.

Instead, the ES relies upon mapped buffers, broad statements that hedges will largely be retained and future planting delivered under outline plans.

That is insufficient for a scheme directly adjoining six ancient woods and affecting a landscape of national importance for bats.

Natural England's position is conditional, not determinative

Natural England currently categorises ancient woodland and ancient or veteran trees as a green issue. However, that position is expressly conditional upon the 30-metre buffers being recorded consistently in the LEMP, CEMP and DEMP and upon strict protection measures being secured, including full BS5837-compliant survey, root-protection controls, no-dig methods, arboricultural supervision, soil-compaction prevention, runoff and dust control and micrositing.

That position does not establish that every wider fragmentation effect has been resolved. Natural England's representation focuses principally upon buffers and direct working controls. It does not displace the distinct concerns of the Forestry Commission regarding landscape isolation, Ringers Grove and Doyly's Grove, or Norfolk Wildlife Trust's requirement that woodland connectivity be demonstrated.

Nor does a consultee's green classification determine the statutory question. The Examining Authority must assess the whole evidence and determine whether loss or deterioration of irreplaceable habitat has been avoided.

Conclusion

The Scheme would not merely sit beside six separate ancient woods. It would alter the matrix connecting and supporting those woods for approximately sixty years. Ringers Grove would be substantially enclosed; Doyly's Grove and Popes Wood would be closely bordered by

development; Saxlingham Grove and Little Wood form part of an active barbastelle maternity-colony network; and Spring Wood is connected to known roosting and hibernation resources.

The proposed buffers may reduce some direct effects, but they do not by themselves prevent:

- landscape isolation;
- behavioural fragmentation;
- woodland-edge deterioration;
- loss of connectivity;
- hydrological change;
- displaced browsing pressure;
- or the cumulative effects of fencing, lighting, traffic and infrastructure.

The Forestry Commission, Norfolk Wildlife Trust and South Norfolk Tree Warden Network all identify connectivity as a central ecological issue. Their evidence is consistent with the Applicant's own findings that mature trees, hedgerows and woodland relationships support a nationally important bat assemblage.

BEPS therefore submits that the Applicant has not demonstrated that the six adjoining ancient woods will retain their ecological function, resilience and connectivity throughout the life of the Scheme. Physical retention of the woodland polygons is not sufficient. In the absence of a fixed and evidence-based woodland connectivity strategy, supported by a final scheme-wide arboricultural and ecological assessment, the risk of deterioration of irreplaceable habitat remains unresolved.

The mitigation hierarchy required the Applicant first to avoid enclosing and fragmenting these ancient woods. The Scheme instead places development around them and relies upon buffers and future planting to manage the resulting harm. That is not avoidance and does not establish compliance with EN-1 or the NPPF protection afforded to irreplaceable habitats.

8.7.3 Woodland buffers do not mitigate all indirect effects

The Applicant places substantial reliance on buffer zones as the principal means of protecting ancient woodland and other sensitive woodland habitats. The Environmental Statement states that the Outline Operational Environmental Management Plan adopts a minimum 30-metre buffer around ancient woodland, within which operational maintenance would be avoided apart from habitat-management activities. Natural England has welcomed that commitment in principle but has required it to be recorded consistently and secured through the Landscape and Ecological Management Plan, Construction Environmental Management Plan and Decommissioning Environmental Management Plan.

A properly designed and enforced buffer can reduce some risks. It can help protect roots from direct excavation, keep machinery away from woodland edges, provide space for transitional vegetation and reduce some forms of immediate disturbance. It does not follow, however, that a uniform 30-metre stand-off automatically prevents deterioration of ancient woodland.

The correct question is not whether a numerical buffer has been drawn on a plan. It is whether the Applicant has demonstrated, for each woodland and each relevant impact pathway, that the proposed buffer will prevent loss or deterioration throughout construction, operation, equipment replacement and decommissioning.

That demonstration has not been made.

Fifteen metres is a minimum, not a safe distance for every effect

Natural England and Forestry Commission standing advice identifies 15 metres from the boundary of ancient woodland as a minimum buffer intended principally to avoid root damage. The Forestry Commission expressly advised at scoping that, where impacts are likely to extend beyond that distance, a larger buffer will be required. It gave air pollution arising from significant traffic increases and construction dust as examples of effects that may extend beyond 15 metres. It also advised that buffers should form part of wider ecological networks and should consist of semi-natural habitat such as woodland, scrub, heathland or wetland rather than simply retained agricultural land.

Natural England likewise advised at scoping that 15 metres is a minimum and that the standing advice should be used to determine when a larger distance is necessary. It specifically required the ES to assess impacts upon the six ancient woodland parcels directly adjoining the Scheme and drew attention to construction dust as a potentially relevant pathway notwithstanding the Applicant's proposal at that stage to scope out air-quality effects.

The Applicant's subsequent adoption of 30 metres is therefore an improvement upon the minimum position, but it does not remove the need for assessment. Thirty metres is not a universally protective distance prescribed by national policy. It remains necessary to establish whether effects from a particular activity, in a particular location, extend beyond it.

For example, the appropriate stand-off from:

- a lightly used solar field;
- a major substation;
- a BESS compound;
- a construction haul road;
- an HDD entry or exit compound;
- a piling operation;
- an abnormal-load route;
- or a drainage outfall

cannot safely be assumed to be identical.

Each presents different risks, durations and zones of influence. A fixed buffer cannot replace a receptor-specific assessment.

Inconsistency between construction, operation and decommissioning controls

The available documents do not yet establish a single, unambiguous buffer regime applying to every relevant phase and document.

Natural England records that the Environmental Statement refers to a 30-metre ancient-woodland buffer through the Outline OEMP, but it has asked for the same commitment to be expressly carried into the LEMP, CEMP and DEMP. Natural England also requires a full BS5837:2012-compliant arboricultural survey, strict Root Protection Area protection, arboricultural supervision, no-dig methods, soil-compaction prevention, dust and runoff controls and micrositing.

That request is important. It indicates that a statement in the Outline OEMP is not, by itself, sufficient to secure woodland protection during the other phases of the development. Ancient woodland may be most exposed during construction and decommissioning, when the principal activities include excavation, cable installation, vehicle movements, storage, piling, compounds and removal of infrastructure. A buffer expressed clearly for operational maintenance cannot be assumed to control those materially different activities.

Norfolk Wildlife Trust similarly records concern that the Scheme relies in relevant locations on a 15-metre construction buffer and a 30-metre operational buffer. It considers that those distances may not be adequate for particularly sensitive habitats, including ancient woodland and lowland fen, and requests larger precautionary buffers, prohibition of compounds, lighting and storage within them, and resolution of HDD entry and exit locations before the close of examination.

The DCO must not leave different buffer distances, exclusions or exceptions scattered across outline documents. Unless the protective distance, permitted activities and prohibited activities are consistent and legally secured for every phase, the claimed mitigation cannot safely be treated as certain.

A buffer must be defined by the effect, not by convenience

The Applicant appears to treat 30 metres as a standard solution applicable across the Scheme. That is not an adequate application of the mitigation hierarchy.

The necessary buffer should be derived from:

- the sensitivity and condition of the particular woodland;
- the nature of the adjoining works;
- local topography;
- soils and geology;
- prevailing wind direction;
- surface-water and groundwater pathways;
- the location of veteran and boundary trees;
- the protected species using the woodland edge;
- the duration and timing of disturbance;
- and the cumulative effects of other adjoining development.

A small ancient wood surrounded on several sides by solar infrastructure may require a materially different protective arrangement from a larger woodland with extensive undeveloped land beyond it. Likewise, a woodland supporting a barbastelle maternity colony or connected hibernation habitat presents additional functional requirements that cannot be resolved by root protection alone.

The Applicant has not provided a woodland-by-woodland buffer justification demonstrating why 30 metres is sufficient at:

- Saxlingham Grove;
- Doyly's Grove;
- Popes Wood;
- Spring Wood;
- Little Wood;
- and Ringers Grove.

Nor is there a transparent assessment showing how the chosen distance relates to the identified zones of influence for dust, hydrology, lighting, noise, vibration, traffic, prey availability or protected-species movement.

The buffer therefore appears to operate as a general design rule rather than the result of a completed effects assessment.

Root protection and soil compaction

Avoiding direct root severance is one of the principal purposes of an ancient-woodland buffer, but even this function depends upon accurate baseline information and strict construction controls.

Tree roots frequently extend beyond the apparent canopy and may extend beyond mapped woodland boundaries. Boundary trees may have root systems extending into the adjoining development area. Soil compaction from vehicle movements, storage, temporary surfacing and construction plant may reduce soil porosity, water availability and oxygen exchange without visibly damaging the tree at the time of construction. Decline may only become apparent years later.

The Forestry Commission advised that Root Protection Areas must be identified and protected wherever land within or adjoining woodland is required for temporary use or utility works. It identified root cutting, trenching, vehicle compaction, heavy-equipment storage, chemical contamination and unintended construction incursions as risks requiring specific controls.

Natural England accordingly requires a full BS5837-compliant survey before construction and strict controls over Root Protection Areas, no-dig working, compaction and micrositing.

The South Norfolk Tree Warden Network remains concerned that the arboricultural position is preliminary and dependent upon later surveys and method statements. It identifies unresolved clashes between indicative access routes and ancient or veteran-tree buffers and requests final Tree Protection Plans showing exclusion zones, no-dig areas, ground protection, haul-road stand-

offs, storage exclusions, manoeuvring areas, lighting exclusions and fuel or chemical exclusion zones.

A nominal 30-metre line does not answer those concerns where:

- access routes remain flexible;
- compounds have not been fixed;
- visibility splays may change;
- Root Protection Areas are not finally mapped;
- or micrositing remains available after consent.

The protective function of the buffer depends upon those matters being resolved before authorisation, not after construction design has begun.

Construction dust and air pollution

Dust is capable of affecting woodland vegetation beyond the immediate works footprint. Deposition on leaves may interfere with photosynthesis and transpiration, alter leaf-surface chemistry and affect lichens, bryophytes and other sensitive organisms. Dust may also alter soil chemistry when washed from foliage or deposited directly upon woodland soils.

The Applicant originally proposed to scope air-quality effects upon ecological receptors out. However, the Forestry Commission and Natural England expressly identified construction dust and traffic-related pollution as pathways requiring consideration in determining buffer width. The Scoping Opinion recorded that ancient woodland within one kilometre should remain scoped into the assessment because of possible pollutants and disturbance.

The issue is particularly important where woodland borders:

- haul roads;
- construction accesses;
- earthworks;
- stockpiles;
- cable trenches;
- substations;
- or other prolonged working areas.

A general commitment to dust suppression does not demonstrate that deposition at each woodland will remain below a level capable of causing deterioration. The assessment should identify the works nearest each woodland, their duration, prevailing wind direction, soil type, likely dust generation and the measures necessary to avoid deposition.

Nor should the Applicant assume that effects are temporary merely because construction eventually ends. Damage to sensitive woodland ground flora, tree health, fungal communities or soils may persist beyond the period of dust generation.

Surface-water runoff and hydrological change

A buffer measured horizontally from a woodland boundary does not sever hydrological pathways.

Natural England records that Saxlingham Grove, Popes Wood and Doyly's Grove are hydrologically connected to the Order Limits through watercourses or groundwater flow. It considers effects capable of being ruled out only if the relevant pollution-prevention, water-quality and surface-water controls in the outline CEMP are followed and secured.

That is a conditional conclusion. It confirms that the woods remain exposed to indirect effects notwithstanding the proposed physical stand-off.

Ancient woodland may be affected by:

- altered surface-water flow;
- increased or reduced groundwater recharge;
- concentrated runoff from tracks or compounds;
- sediment-laden water;
- preferential flow along cable trenches;
- dewatering;
- changes to soil moisture;
- chemical spills;
- and contamination associated with construction or firewater.

Some of those processes may originate well beyond 30 metres. Cable trenches and access tracks can redirect flows across a wider catchment. Substation and BESS drainage systems may concentrate water into new discharge locations. Soil compaction may reduce infiltration and increase runoff towards woodland edges.

The Applicant has not provided a site-specific woodland hydrology assessment for each of the six adjoining ancient woods. Nor has it demonstrated through monitoring data or modelling that construction, operation and decommissioning will maintain the existing water regime upon which each woodland depends.

A buffer may provide physical space for a swale or vegetated strip. It does not, by itself, prove that the existing hydrological regime will be preserved.

Lighting and loss of dark woodland edges

Artificial lighting is another impact that cannot be controlled solely by distance.

Ancient woodland edges provide commuting and foraging habitat for bats and other nocturnal species. The Applicant's own evidence identifies a nationally important bat assemblage, widespread barbastelle use and multiple maternity-colony Core Sustenance Zones across the Scheme. Saxlingham Grove, Little Wood and Spring Wood are directly associated with known or

likely barbastelle colonies, while Spring Wood is also connected to converted wartime structures used as bat hibernacula.

The ecological function of these woods therefore depends upon retaining dark emergence routes, woodland edges and connections to the wider landscape.

A 30-metre buffer does not necessarily prevent light spill from:

- construction compounds;
- HDD operations;
- security lighting;
- substations;
- vehicle headlights;
- emergency work;
- maintenance operations;
- or temporary night-time activity.

Norfolk Wildlife Trust specifically requests that no lighting spill be permitted onto woodland edges, hedgerows, watercourses or designated sites, that enforceable lux limits be secured and that monitoring occur near known barbastelle roosts. It also notes that temporary continuous lighting may be required during HDD operations lasting one or two days and that the locations of associated compounds are not yet fully defined.

The appropriate control is therefore not merely a buffer distance. It requires:

1. mapped dark corridors;
2. fixed lighting exclusion zones;
3. maximum illuminance limits;
4. horizontal and vertical spill controls;
5. restrictions on vehicle orientation and compound location;
6. seasonal controls;
7. monitoring;
8. and enforceable remedial action.

None of those protections can be inferred from the existence of a 30-metre strip.

Noise, vibration and piling

Construction noise and vibration may also extend beyond a standard woodland buffer. Pile driving, trenching, HDD, heavy vehicle movements and construction plant can disturb fauna using woodland edges, tree roosts and hibernation sites.

This is particularly relevant at Spring Wood because of the known or reported combination of barbastelle roosting, commuting and hibernation resources. Norfolk Wildlife Trust previously asked for Site 3 to be removed because of its effects upon the County Wildlife Site, ancient woodland and bats. Although part of the parcel was removed, NWT remains concerned about

development immediately west of Spring Wood and states that an even wider buffer may be required between the woodland and the substation.

There is no evidence that a uniform 30-metre stand-off has been derived from vibration modelling or species-specific disturbance assessment. In particular, the Applicant has not demonstrated that:

- percussive piling would be imperceptible within the woodland;
- vibration would not reach tree roosts or the converted bomb shelters;
- repeated HGV movements would not disturb woodland fauna;
- or the combined effect of noise, lighting and vegetation change would remain insignificant.

A buffer may attenuate some noise and vibration, but its effectiveness depends upon source level, soil and geological conditions, duration, topography, woodland structure and receptor sensitivity. Those matters require assessment, not assumption.

Woodland-edge microclimate and ecological transition

A woodland buffer should protect and enhance the ecological transition between woodland and the surrounding landscape. A simple strip of grass does not necessarily perform that function.

Ancient woodland edges are influenced by:

1. temperature;
2. humidity;
3. wind;
4. shading;
5. soil moisture;
6. adjoining vegetation;
7. pollution;
8. and surrounding land management.

Panel arrays and associated infrastructure may alter those conditions by changing wind movement, shade, reflected heat, drainage and management. These changes may affect woodland-edge vegetation, insects, bats, birds and other fauna.

Norfolk Wildlife Trust has repeatedly advised that 30-metre woodland buffers should comprise genuine ecotones of shrubs and rough grassland. It recommends such treatment around Spring Wood and the woodland adjoining Sites 4 and 5, and around sensitive woods and County Wildlife Sites at Site 7. It further states that wider buffers may be necessary in particular locations, including between the substation and Spring Wood.

That evidence shows that the quality and design of the buffer are as important as its width.

A satisfactory woodland-edge buffer would need to provide:

- a graduated transition from woodland canopy to scrub and rough grassland;

- locally appropriate native species;
- structural diversity;
- long-term management;
- protection from lighting and disturbance;
- hydrological compatibility;
- and continuity with adjoining hedgerows and other woodland.

The Applicant has not demonstrated that every proposed ancient-woodland buffer will meet those requirements. Nor is it clear that planting intended principally for visual screening has been designed around woodland ecology.

Buffers do not preserve wider connectivity

Even a well-designed 30-metre ecotone cannot preserve a woodland's wider ecological function if the landscape beyond it becomes fragmented.

The six adjoining ancient woods form part of a network connected through hedgerows, mature trees, field margins, ponds, lanes and watercourses. The Applicant's own scoping report identified ancient woodland within one kilometre as requiring assessment for indirect effects and acknowledged that the surrounding farmed landscape contains priority hedgerows, ponds and extensive deciduous woodland.

The Forestry Commission advised that woodland buffers should contribute to wider ecological networks and that woodland and hedgerow planting should connect existing woods rather than be confined to isolated screening areas. It recommended connected woodland blocks of at least five hectares where feasible.

A 30-metre strip around Ringers Grove does not answer the enclosure of that woodland where panel arrays and fencing remain beyond the strip on several sides. A buffer around Little Wood does not preserve the maternity colony's functional landscape unless dark flight routes to surrounding foraging habitat remain intact. A buffer around Saxlingham Grove does not protect the colony if adjoining hedgerows are interrupted or illuminated.

The Applicant's buffer case therefore confuses local separation with landscape connectivity. Both are necessary, but they are not interchangeable.

Buffers must remain free from incompatible uses

The protective value of a buffer depends upon what is permitted within it. A buffer cannot perform its intended function if it accommodates:

- access roads;
- drainage structures;
- cable trenches;
- fencing;
- security equipment;

- lighting;
- storage;
- compounds;
- temporary working areas;
- turning heads;
- crane oversail or manoeuvring;
- or intensive maintenance.

Natural England states that operational maintenance, other than habitat management, should be avoided within the ancient-woodland buffer. It has asked for that commitment to be carried into all relevant management plans. NWT similarly seeks a prohibition on construction compounds, lighting and storage within precautionary buffer zones.

Those exclusions must be secured in the DCO itself or through requirements with clear approval criteria. They should not depend upon later contractor discretion.

The protective plan must also distinguish between the Order Limits and the actual construction exclusion zone. Inclusion of woodland buffers within broad works envelopes may permit later micrositing or temporary use that undermines the mitigation relied upon in the ES.

Long-term management and monitoring are unresolved

The Scheme would operate for approximately sixty years. A woodland buffer cannot be treated as successful merely because it is planted or fenced at the start of operation.

Its continued effectiveness will depend upon:

- establishment success;
- replacement of failed planting;
- control of invasive species;
- maintenance of structural diversity;
- appropriate grazing or cutting;
- protection from compaction;
- retention of darkness;
- avoidance of chemical use;
- continued hydrological function;
- and prevention of gradual operational encroachment.

Natural England has advised that the LEMP should explicitly secure management, monitoring and maintenance of ecological measures for the full operational lifetime, with performance indicators and remedial actions. It treats that aspect of the draft DCO as outstanding.

The same concern applies to decommissioning. Removal of panels, fencing, piles, tracks and cables may require extensive plant and renewed access close to woodlands. Unless the DEMP carries the same or stronger buffer controls, woodlands protected during operation may be exposed to significant disturbance at the end of the project.

The Applicant has not yet demonstrated how woodland buffers will be protected, funded, monitored and enforced across the full project life, including against successor owners or operators.

Natural England's 'green' classification is conditional

Natural England presently categorises ancient woodland and ancient or veteran trees as a green issue. That should be represented accurately but not overstated.

Natural England's classification is expressly conditional upon the mitigation being adequately secured. It asks for the 30-metre commitment to be incorporated consistently into the LEMP, CEMP and DEMP and for standing-advice protections to be followed. It also requires strict Root Protection Area controls, an arboricultural survey, no-dig methods, dust and runoff controls and micrositing.

Natural England's position therefore does not establish that a 30-metre buffer, by itself, eliminates all indirect effects. It confirms the opposite: additional construction, arboricultural, hydrological and long-term management measures are required.

Nor does its green classification displace the concerns of the Forestry Commission, Norfolk Wildlife Trust or the Tree Warden Network concerning:

- woodland isolation;
- ecotone quality;
- buffer clashes;
- construction disturbance;
- lighting;
- hydrology;
- incomplete arboricultural information;
- and the need for wider buffers in particular locations.

The Examining Authority must assess the evidence as a whole and determine whether deterioration has been avoided, rather than treating a consultee colour classification as determinative.

Buffers are mitigation, not avoidance

The Applicant's reliance on buffers also exposes a fundamental mitigation-hierarchy issue.

Leaving a strip between development and ancient woodland is a form of mitigation. It is not avoidance of the wider conflict where the development continues to surround, enclose or disturb the woodland.

True avoidance would involve:

- removing development parcels adjoining the most sensitive woods;
- relocating substations and compounds;

- keeping major construction routes away from woodland;
- preserving broad undeveloped connections between woodland blocks;
- and selecting a less constrained landscape in the first place.

At Spring Wood, NWT expressly recommended removal of Site 3 because of impacts on the County Wildlife Site, ancient woodland and bats. Partial removal of the parcel combined with a buffer does not represent full avoidance where development remains beside the same sensitive receptor.

At Ringers Grove, a buffer does not avoid enclosure. At Doyly's Grove and Popes Wood, it does not avoid the development occupying the surrounding ecological matrix. At Saxlingham Grove and Little Wood, it does not avoid development within the support landscape of barbastelle maternity colonies.

The Applicant cannot therefore use the existence of buffers to claim that the first stage of the mitigation hierarchy has been satisfied.

Conclusion

Buffer zones are a necessary component of ancient-woodland protection, but they are not a complete answer to the indirect effects of East Pye Solar.

The Applicant's proposed 30-metre buffer may reduce some direct risks, but it has not been demonstrated to prevent:

- construction dust and traffic-related pollution;
- hydrological change;
- soil compaction and root damage;
- lighting and loss of dark woodland edges;
- noise and vibration;
- disturbance to maternity and hibernation habitat;
- altered woodland-edge microclimate;
- loss of prey and foraging function;
- enclosure and landscape fragmentation;
- displaced animal movement;
- or impacts arising during replacement and decommissioning.

The Forestry Commission's advice establishes that 15 metres is only a minimum and that larger buffers are required where effects extend farther. Norfolk Wildlife Trust requests at least 30 metres, genuine shrub and rough-grassland ecotones and, in sensitive locations such as Spring Wood, potentially greater separation. Natural England's present position is conditional upon the 30-metre commitment and detailed protective measures being made consistent and enforceable across every project phase. The Tree Warden Network identifies unresolved buffer clashes and deficiencies in the final arboricultural evidence.

BEPS therefore submits that the Applicant has not demonstrated that a standard 30-metre buffer will prevent deterioration of the six adjoining ancient woodlands. Each woodland requires a site-

specific Zone of Influence assessment and a buffer designed around the actual sources and pathways of harm. Where that assessment cannot establish that indirect effects will be avoided, the adjoining development must be removed or relocated.

The policy test concerns loss or deterioration of irreplaceable habitat, not compliance with a nominal distance. Unless the Applicant can demonstrate that the woodlands' soils, hydrology, edge conditions, protected-species functions and landscape connectivity will remain intact throughout the whole life of the Scheme, reliance on buffers does not establish compliance with EN-1, the NPPF or the mitigation hierarchy.

8.7.4 Ancient trees, veteran trees and the wider tree network

The ancient and veteran tree resource affected by East Pye Solar is not confined to the six adjoining ancient woodlands. Individual ancient and veteran trees, mature boundary trees, tree lines and hedgerow trees occur throughout the Order Limits and the surrounding landscape. Together, they form an irreplaceable ecological and historic network that provides continuity between woodland blocks, watercourses, ponds, old lanes and field boundaries.

The Applicant's own evidence confirms that this is an extensive resource. Appendix 8.1 records 49 trees with veteran features within the Order Limits and a further 21 within 30 metres of the site boundary, distributed across Sites 3, 4, 5, 7, 9 and 10 and Cable Route Corridor section 6. Native hedgerows occur throughout the sub-sites, alongside ponds, watercourses and arable field margins. These veteran-feature trees are therefore not isolated specimens. They form part of the ecological structure through which wildlife moves across the Scheme landscape.

The same evidence base identifies a still larger tree resource relevant to protected bats. Chapter 8 records 621 trees assessed as having potential to support roosting bats, comprising 577 trees within Sites 1–10 and the BESS Site and 44 within the Cable Route Corridor and Highway Improvement Works boundaries. The Applicant recognises that the loss of trees capable of supporting roosting bats could cause direct harm, population fragmentation and habitat degradation. It also concludes that the Order Limits and surrounding landscape support a nationally important assemblage of foraging and commuting bats, including barbastelle, within the Core Sustenance Zones of several maternity colonies.

Those figures show that the affected tree resource is not peripheral to the Scheme. Ancient, veteran and mature trees are present across the development landscape, including along the access, cable and highway corridors through which the most disruptive works would occur.

Ancient and veteran trees are irreplaceable habitat

An ancient tree is one that has reached a great age in comparison with others of the same species and has developed exceptional ecological, cultural and historic value. A veteran tree need not yet be ancient, but displays important features associated with age, damage or natural decay, such as:

- cavities and hollowing;
- rot holes;
- loose or fissured bark;

- dead limbs and exposed heartwood;
- water pockets;
- fungal fruiting bodies;
- sap runs;
- and complex deadwood habitat.

Those features support highly specialised communities of fungi, lichens, bryophytes, invertebrates, birds and bats. They are the product of biological processes operating over many decades or centuries. They cannot be recreated by planting a young tree elsewhere.

National policy accordingly treats ancient and veteran trees as irreplaceable habitats, whether they occur within woodland, within a hedgerow or as individual field trees. The Forestry Commission's scoping response quoted EN-1 paragraph 5.4.53, under which development consent should not be granted for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees, unless there are wholly exceptional reasons and a suitable compensation strategy exists. It also referred to EN-1 paragraph 5.4.32, which requires applicants to mitigate fully the direct and indirect effects of development on ancient woodland and ancient and veteran trees during construction and operation.

The policy test is therefore not limited to whether a tree is felled. It includes deterioration. A retained veteran tree may deteriorate through root severance, compaction, excessive pruning, altered hydrology, pollution, bark damage, fungal infection, loss of surrounding habitat or isolation from the wider ecological network.

The Applicant must therefore demonstrate not only that veteran trees will remain standing, but that the conditions necessary for their continued survival and ecological function will be preserved throughout construction, operation, replacement and decommissioning.

The wider tree network is part of the ecological infrastructure of the Claylands

The ecological importance of individual trees cannot be understood by treating them as separate arboricultural objects. In the South Norfolk Claylands, mature oaks, ash, hornbeam and other field and hedgerow trees operate collectively with old hedges, copses, ponds, ditches and ancient woodland.

The South Norfolk Tree Warden Network describes those features as functional ecological infrastructure. Its representation explains that the landscape is structured by mature hedgerows, field trees, woodlands and veteran features and that these features provide roosting, foraging and commuting habitat. It criticises the absence of a route-wide analysis of cumulative hedgerow severance, gap creation, veteran-tree buffer disruption, access widening, visibility splays, construction lighting and haul-road disturbance.

This is especially relevant to barbastelle bats. Barbastelles frequently use trees with splits, loose bark and other veteran features and may change roosts repeatedly within a woodland or wider tree network. The protection of one known roost tree is therefore not sufficient. The surrounding

resource of potential alternative roosts and the dark routes connecting them must also be retained.

The Applicant's own finding that barbastelle activity occurred across the Scheme and that mature trees, hedgerows and tree lines contribute to a nationally important bat landscape reinforces the point. Damage to mature and veteran trees may affect not only the tree itself but the functioning of maternity-colony landscapes extending across several development parcels.

Individual veteran trees may also operate as ecological 'stepping stones' between ancient woodland blocks. Their loss or deterioration can increase the distance between suitable roosting or refuge habitats, reduce landscape permeability and weaken the resilience of species populations. That function is not captured by a simple count of trees retained and removed.

The arboricultural assessment remains preliminary

The Applicant has submitted a Preliminary Arboricultural Impact Assessment, but the evidence does not establish a final, construction-ready understanding of the effects upon every tree, group, woodland and hedgerow.

The Tree Warden Network notes that the Applicant itself describes Appendix 7.10 as a Preliminary AIA based upon targeted surveys within the sites and wider surveys along the Cable Route Corridor. It is not a final tree-by-tree and hedgerow-by-hedgerow assessment of:

- all permanent and temporary accesses;
- all visibility splays;
- all highway works;
- all AIL routes and manoeuvring requirements;
- all construction compounds;
- all haul roads;
- all cable trenches and HDD compounds;
- all drainage works;
- all crane and delivery movements;
- or all decommissioning works.

The Applicant proposes a further pre-construction survey to re-establish the baseline and inform Tree Protection Plans, construction exclusion zones and an Arboricultural Method Statement. Those later controls may be necessary, but they are not a substitute for a complete impact assessment during Examination.

The purpose of the Environmental Statement is to identify the likely significant effects of the authorised development before consent is granted. A future survey cannot lawfully be used to postpone the central question of whether the Scheme can be constructed within the proposed limits without unacceptable harm to irreplaceable trees.

There is also an obvious risk in relying upon a future survey to 're-establish' the baseline. Trees may decline, branches may fail, ownership or management may change, and development pressure may increase between consent and commencement. The examination baseline should be fixed,

comprehensive and auditable so that subsequent changes can be identified rather than incorporated silently into a revised pre-construction position.

Four unresolved clashes with ancient and veteran tree buffers

The Applicant's own assessment has identified four clashes between indicative access routes and buffer zones applied to ancient and veteran trees within the Order Limits. Chapter 7 states that these clashes can be addressed at detailed design because the access routes are indicative and may be moved within the flexible envelope of Work No. 4.

That is not an adequate response.

An identified conflict with the buffer of an irreplaceable tree is an environmental constraint requiring redesign before consent. It is not simply a construction detail. The Examining Authority should know:

- which trees are affected;
- the location and purpose of each proposed access;
- whether an alternative route exists;
- the necessary road width and loading;
- whether visibility splays or turning movements require crown pruning;
- whether excavation or surfacing enters the Root Protection Area;
- whether ground protection or no-dig construction is practicable;
- and whether large vehicles can pass without branch, stem or root damage.

The use of a flexible works envelope creates a particular risk. While flexibility may assist engineering design, it must not permit an access route or haul road to be shifted after consent into the protected area of an ancient or veteran tree. A commitment to resolve the conflict during detailed design does not establish that a feasible avoidance solution exists.

The four clashes should therefore be resolved through fixed plans before the end of the Examination. Where an access cannot be delivered without intrusion into an ancient or veteran tree buffer, the access or the development it serves should be redesigned or removed.

Buffer requirements for individual ancient and veteran trees

The Forestry Commission's scoping advice states that the buffer around an ancient or veteran tree should be at least 15 times the tree's stem diameter, or extend five metres beyond the edge of the canopy where that produces a larger area. This is intended to establish a minimum Root Protection Area. The advice also makes clear that a larger buffer may be necessary where indirect effects extend farther.

A uniform distance is therefore not necessarily sufficient for every tree. The appropriate protection must account for:

- tree dimensions and rooting pattern;

- species and physiological condition;
- existing damage or decay;
- surrounding soil conditions;
- topography and drainage;
- the location of adjoining hedges and other trees;
- construction loading;
- vehicle turning and oversail;
- lighting;
- storage and compound use;
- and the nature and duration of nearby works.

Natural England records that the Applicant proposes a 30-metre buffer around veteran trees and states that veteran trees will not be removed and pruning will be avoided. Natural England welcomes that position but requires the 30-metre commitment to be recorded consistently in the LEMP, CEMP and DEMP. It also requires a full BS5837:2012-compliant arboricultural survey, strict Root Protection Area protection, arboricultural supervision, no-dig methods, soil-compaction prevention, dust and runoff control and micrositing.

Natural England's 'green' classification is therefore conditional. It depends upon the identified measures being made consistent, detailed and enforceable. It does not cure the unresolved access clashes or establish that every works component can remain outside the relevant protection areas.

Accesses, visibility splays and abnormal-load movements

The greatest risks to mature and veteran trees may arise not from the solar panels themselves but from the road and access works required to construct the Scheme.

The project requires articulated HGV access, abnormal indivisible load deliveries, cable-drum movements and the movement of transformers and other large electrical equipment. Existing agricultural accesses will be used where practicable, but new accesses and visibility splays will be required in some locations.

These activities may cause:

- removal of hedgerow sections and associated trees;
- crown lifting or lateral pruning;
- branch damage from high or wide loads;
- bark strikes;
- excavation within Root Protection Areas;
- soil compaction from repeated vehicle loading;
- installation of kerbs, drainage or hard surfacing;
- and changes in water movement around tree roots.

Visibility splays create a particular risk because they may require repeated management rather than a single intervention. A tree initially retained may later be subjected to continued pruning to preserve highway visibility throughout construction or operation.

AIL movements present another distinct risk. The swept path of a transformer or cable-drum vehicle includes not only the wheel track but vehicle overhang, turning space and vertical clearance. The Applicant must demonstrate that every such movement is feasible without damage to veteran trees, mature roadside trees and old hedgerows.

An assurance that trees will be retained 'wherever possible' is insufficient. Irreplaceable habitat should be a fixed design constraint, not an interest to be balanced against later contractor convenience.

Cable routes, trenching and Root Protection Areas

The extensive Cable Route Corridor creates a second major risk. Cable installation involves excavation, temporary working widths, haul roads, compounds, soil storage, jointing bays and potentially HDD entry and exit areas.

Tree roots do not follow mapped boundaries and may extend well beyond the visible canopy. Trenching can sever structural and absorbing roots, while repeated plant movement can compact soils and reduce air and water availability. Damage may occur even where the trunk and canopy remain untouched.

The Applicant's reliance upon reduced working widths, micrositing and future arboricultural supervision does not establish that harm will be avoided. The final route should identify:

- every Root Protection Area crossed or approached;
- the exact working width;
- the excavation method;
- whether trenchless installation is required;
- the position of soil storage;
- vehicle routes;
- temporary surfacing;
- and the method of reinstatement.

Where a cable route cannot avoid the Root Protection Area of an ancient or veteran tree, an alternatives assessment should be required. Convenience, cost saving or the desire to retain route flexibility cannot amount to wholly exceptional reasons for deterioration of irreplaceable habitat.

Soil compaction and delayed decline

Tree damage is not always immediate or visually obvious. A veteran tree may survive the construction period yet enter decline years later because of root injury, compaction, altered drainage, fungal infection or physiological stress.

The Tree Warden Network expressly identifies the risk of delayed harm from:

- soil compaction;
- root severance;
- excessive pruning;
- bark damage;
- fungal infection;
- altered drainage;
- pathogens;
- soil contamination;
- branch failure;
- and long-term decay.

Compaction is particularly significant. Heavy machinery compresses soil pores, restricting oxygen, water infiltration and root growth. The effect may persist long after temporary tracks or compounds have been removed. Simply loosening or reinstating the upper soil horizon may not restore the original structure of deeper compacted ground.

Changes to drainage may have similar delayed consequences. Cable trenches, new tracks and compacted surfaces can redirect water, creating either waterlogging or drought stress. A veteran tree already containing extensive heartwood decay may have limited capacity to respond to those changes.

The assessment must therefore address both immediate physical damage and delayed physiological deterioration. Success cannot be measured simply by whether a tree remains standing at the end of construction.

Operational pressure from shading, leaf fall and tree growth

The risk continues during operation.

Trees adjoining solar arrays, substations and access roads will continue to grow. Their crowns may shade panels, deposit leaves, seeds or sap, obstruct CCTV sightlines, encroach upon security fencing or affect operational access. Roots may extend beneath tracks or other infrastructure.

These ordinary biological processes can create pressure for future pruning or removal. The Tree Warden Network accordingly seeks express assurance that woodland and adjoining trees will not be cut back during the life of the Scheme to address shading, leaf fall, sap, seed deposition, root growth or other perceived operational inconvenience.

That protection should not depend upon an operator's general commitment to avoid pruning. It should be secured through the DCO and management plans, with any exceptional safety work subject to independent arboricultural assessment and approval.

The layout must be designed to accommodate the natural future growth of retained trees. A panel or access road placed so close to a mature tree that conflict becomes inevitable has not avoided the impact; it has merely postponed it.

Protected-species implications

The extensive potential-roost tree resource creates a separate legal issue under the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981.

A tree may support a bat roost even if no bat was observed during an initial inspection. Roost features can be concealed, bats may use different trees seasonally, and occupancy may change between survey and construction. The Applicant's identification of 621 trees with roost potential confirms the scale of the issue.

Works capable of affecting those trees may include:

- felling;
- pruning;
- crown lifting;
- root damage leading to later failure;
- lighting of an emergence point;
- obstruction of a flight route;
- and vibration or disturbance close to a roost.

Pre-construction inspection is therefore necessary, but it cannot be the sole safeguard. The Scheme must first minimise the number of potentially affected trees through fixed avoidance. Where impacts cannot be excluded, the Applicant must establish what further surveys, licensing and mitigation are required and whether there is a realistic prospect of satisfying the relevant licensing tests.

Natural England continues to classify protected species as an amber matter and seeks clarification as to whether licences will be required for roosting bats and other species. That outstanding issue is directly relevant to any veteran or mature tree works.

Replacement planting and Biodiversity Net Gain are not equivalent compensation

The Applicant relies upon extensive proposed planting and Biodiversity Net Gain. New native trees and hedges may provide future benefits, but they cannot replace ancient or veteran trees.

A sapling does not contain:

- centuries-old heartwood decay;
- hollow trunks;
- loose bark;
- veteran cavities;
- long-established fungal communities;
- complex deadwood;
- or the same cultural and landscape presence.

Even well-designed planting may take many decades before developing limited veteran characteristics. Some specialist species may be unable to persist during that time. The loss is therefore not merely quantitative but temporal, structural and ecological.

Nor can habitat units elsewhere compensate automatically for the deterioration of an individual irreplaceable tree. The biodiversity metric is not a licence to trade ancient or veteran habitat for a greater area of younger planting.

The appropriate policy response is avoidance. Compensation arises only in the exceptional circumstances contemplated by national policy, after the decision-maker is satisfied that wholly exceptional reasons exist. No such reasons have been demonstrated for damaging trees to accommodate access geometry, temporary working space or route flexibility.

Required protection and monitoring

The South Norfolk Tree Warden Network requests a final AIA covering the whole Order Limits, Cable Route Corridor, highway works, AIL routes, visibility splays, compounds, accesses, haul routes, drainage works and decommissioning assumptions. It also seeks final Tree Protection Plans showing construction exclusion zones, no-dig areas, fencing, ground protection, haul-road stand-offs, storage exclusions, vehicle manoeuvring areas, lighting exclusions and fuel or chemical exclusion zones.

Those requirements are proportionate to the scale and sensitivity of the resource.

BEPS further submits that the DCO should secure:

- a presumption against removal or pruning of ancient, veteran and high-value mature trees;
- resolution of all access and buffer clashes before consent;
- fixed Root Protection Areas and construction exclusion zones;
- no-dig construction where any works are exceptionally permitted close to roots;
- prohibition of storage, compounds, drainage infrastructure, lighting and vehicle movements within protection areas;
- independent arboricultural and ecological clerks of works with authority to stop works;
- photographic and condition records before and after construction;
- and long-term monitoring for compaction, hydrological change, fungal infection, branch failure and delayed decline.

Monitoring must extend for a period sufficient to detect delayed effects. A short inspection immediately after construction would not establish that a veteran tree has avoided deterioration.

Conclusion

The Applicant's evidence establishes that East Pye Solar affects an extensive and highly valuable tree network. At least 49 trees with veteran features occur within the Order Limits, a further 21 occur within 30 metres, and 621 trees have been identified as having potential to support roosting bats. Those trees operate collectively with ancient woodland, hedgerows, ponds and watercourses as part of the functional ecological infrastructure of the South Norfolk Claylands.

Despite that importance, the arboricultural assessment remains preliminary. Four known clashes between indicative access routes and ancient or veteran tree buffers are deferred to detailed design, while important matters concerning AIL movements, visibility splays, cable routes, Root Protection Areas and future operational pressure remain dependent upon later surveys and method statements.

The Applicant's stated intention not to remove veteran trees and to avoid pruning is welcome, but it is not yet demonstrated by a fixed and deliverable design. Nor does retention alone exclude deterioration through root damage, compaction, altered drainage, excessive disturbance, lighting, isolation or delayed decline.

BEPS therefore submits that ancient and veteran trees must be treated as absolute design constraints throughout the Order Limits. Every known conflict must be resolved before development consent is granted. Where an access, cable route, visibility splay, compound or other works component cannot be delivered without risking loss or deterioration, that element of the Scheme must be redesigned or removed.

Replacement planting and Biodiversity Net Gain cannot make the loss or deterioration of centuries-old living habitat acceptable. In the absence of a final arboricultural assessment, fixed protection plans and enforceable whole-life safeguards, the Applicant has not demonstrated compliance with EN-1 or the national policy protection afforded to irreplaceable habitats.

8.7.5 The South Norfolk Tree Warden Network evidence

The Relevant Representation submitted by the South Norfolk Tree Warden Network provides important specialist and locally informed evidence concerning the Scheme's effects on trees, hedgerows, ancient woodland, veteran features and the wider ecological network. Its evidence should not be treated as a general objection to development or as a repetition of landscape concerns. It identifies specific deficiencies within the Applicant's Environmental Statement, including the preliminary nature of the arboricultural assessment, unresolved conflicts with ancient and veteran tree buffers, incomplete information about hedgerow removal, reliance on flexible access design and the absence of a final scheme-wide assessment of cumulative tree and hedgerow harm.

The Network's central conclusion is that the arboricultural effects of a project of this scale must be understood before development consent is granted, rather than being left to future surveys, detailed design and contractor method statements. That conclusion is supported by South Norfolk Council's own consultation evidence. The Council asked for tree surveys to inform the Scheme's detailed design and stated that, from its experience of other NSIPs, the arboricultural assessment should not be left until final design because it would otherwise be difficult to understand and weigh the implications of the proposals. It also expected a full arboricultural impact assessment for all elements of the Scheme to be available for Examination.

The Tree Warden Network's evidence demonstrates that this requirement has not yet been met.

A landscape structured by trees and hedgerows

The Network begins from the correct landscape and ecological characterisation. East Pye Solar is proposed within a landscape structured by mature hedgerows, hedgerow trees, field trees, woodland groups, veteran features, old lanes, ponds and watercourses. These features are not incidental obstructions within otherwise open agricultural land. They are among the defining components of the South Norfolk Claylands.

The Applicant's own scoping report describes several development areas as containing remnant hedgerow networks, isolated mature trees, established tree belts and woodland groups of high ecological and visual quality. At Site 8, for example, the Applicant described irregular small and medium-sized fields defined by a remnant hedgerow network and established tree belts and woodland groups, including ancient woodland, which create wooded horizons and landscape intimacy. Similar characteristics were recorded at Sites 9 and 10.

The Tree Warden Network therefore objects to the treatment of trees and hedgerows as individual landscape features capable of being removed in small sections and replaced by later planting. Its representation explains that they form functional ecological infrastructure. They connect woodland, roosting habitat, watercourses, ponds and feeding areas and provide the structure through which bats, birds, mammals and invertebrates move across the landscape.

That conclusion is strongly supported by the Applicant's ecological evidence. The Scheme contains native hedgerows throughout the sub-sites, at least 49 trees with veteran features within the Order Limits and a further 21 within 30 metres of the boundary. The trees are distributed across Sites 3, 4, 5, 7, 9 and 10 and part of the Cable Route Corridor. The affected resource is therefore extensive and dispersed, not confined to one or two isolated locations.

The ecological importance is further demonstrated by the Applicant's identification of 621 trees with potential to support roosting bats: 577 within Sites 1–10 and the BESS Site and 44 within the Cable Route Corridor and Highway Improvement Works boundaries. The Applicant also concludes that the Order Limits and surrounding landscape support a nationally important assemblage of foraging and commuting bats, including barbastelle, and that mature trees, tree lines, hedgerows and field margins provide supporting habitat within overlapping maternity-roost Core Sustenance Zones.

The Network is therefore correct that the arboricultural and ecological issues cannot be separated. Damage to a mature tree or hedgerow may simultaneously constitute:

- loss of a landscape feature;
- damage to historic landscape structure;
- interruption of a bat commuting route;
- loss or degradation of potential roosting habitat;
- fragmentation of woodland connectivity;
- loss of nesting or feeding habitat;
- and reduction in the resilience of the wider ecological network.

The Environmental Statement does not adequately assess those combined functions.

The Arboricultural Impact Assessment remains preliminary

A principal concern raised by the Tree Warden Network is that Appendix 7.10 is expressly described as a Preliminary Arboricultural Impact Assessment. It is based upon targeted surveys within the principal sites and wider survey work along the Cable Route Corridor. It is not a final, construction-ready assessment of every tree, hedgerow, access, compound, visibility splay, haul route and cable working area that may be affected by the authorised development.

This distinction is important. A preliminary assessment may identify broad constraints and inform early design, but it does not provide the certainty needed to determine the final environmental effects of a DCO containing extensive flexibility. The Network identifies unresolved matters including:

- temporary and permanent accesses;
- road widening and visibility splays;
- abnormal indivisible load routes;
- articulated HGV manoeuvring;
- haul roads;
- cable trenches;
- HDD compounds;
- construction compounds;
- soil and material storage;
- drainage works;
- lighting;
- and decommissioning access.

Each of those elements may affect trees and hedgerows beyond the footprint of the solar arrays. Several are also subject to later design or micrositing.

The Applicant proposes a further pre-construction survey to re-establish the baseline and inform Tree Protection Plans, construction exclusion zones and an Arboricultural Method Statement. The Network accepts that those measures will be necessary, but correctly states that they cannot substitute for a complete assessment at Examination.

A pre-construction survey may confirm current tree condition and refine working methods. It should not be used to determine for the first time:

- whether a proposed access can be constructed;
- whether a visibility splay requires tree removal;
- whether an AIL can pass beneath a mature canopy;
- whether a cable route enters a Root Protection Area;
- or whether an ancient or veteran tree buffer can be maintained.

Those are consent-stage questions because they bear directly upon whether the Scheme is environmentally acceptable and physically deliverable.

South Norfolk Council made the same point during consultation. It expected a full arboricultural impact assessment for all elements of the Scheme at Examination and stated that any potential conflict caused by uncertain GPS positions should be confirmed on site before approval of the Scheme, not merely before commencement of works. The Council also noted that the absence of a Tree Preservation Order does not indicate that no trees worthy of formal protection are present.

The continuing reliance on later survey and design therefore conflicts with both the local authority's advice and the Tree Warden Network's specialist evidence.

Four unresolved conflicts with ancient and veteran tree buffers

The most direct evidence of inadequate design resolution is the Applicant's identification of four conflicts between indicative access routes and buffer zones associated with ancient or veteran trees. The Applicant proposes to resolve those conflicts during detailed design because the access routes are indicative and can move within the flexible envelope of Work No. 4.

The Tree Warden Network identifies this as a central defect, and BEPS agrees.

Ancient and veteran trees are irreplaceable habitats. A known conflict with an irreplaceable-habitat buffer is not a minor engineering matter. It is a design constraint that should be resolved before consent.

The Applicant has not yet established:

- which precise trees are involved;
- what access each route serves;
- the required road width and construction method;
- whether excavation or surfacing enters the Root Protection Area;
- whether crown lifting or branch removal would be required;
- whether articulated HGVs can pass safely;
- whether abnormal loads can negotiate the route;
- whether alternative access is available;
- or whether moving the access merely transfers harm to another tree or hedgerow.

The use of a flexible works envelope increases rather than removes the need for certainty. A wide envelope may enable a later contractor to choose between routes, but it does not demonstrate that a route free from unacceptable arboricultural harm exists.

The Network therefore asks that all four conflicts be resolved before consent and that any access, visibility splay, AIL manoeuvre or haul road that cannot be delivered without entering an ancient or veteran tree buffer should be redesigned.

That request is necessary to ensure that the Environmental Statement's conclusions are based upon a deliverable design rather than an assumption that avoidance will be possible later.

Repeated hedgerow removal and cumulative severance

The Tree Warden Network also challenges the Applicant's treatment of hedgerow removal. Chapter 8 accepts that temporary removal of hedgerow sections, generally up to approximately 10 metres at individual locations, will be required for cable works, haul routes and access requirements. The Applicant proposes reinstatement, new planting and management through the Outline LEMP and Outline CEMP.

The assessment treats each opening as localised and relatively minor. The Network's evidence demonstrates why that is misleading.

The Scheme requires repeated crossings and openings across:

- the Cable Route Corridor;
- construction haul routes;
- new and widened accesses;
- visibility splays;
- highway improvement works;
- AIL routes;
- and internal operational routes.

A single 10-metre gap may appear limited. Repeated gaps across a large connected landscape can produce substantial cumulative effects, including:

- severance of bat commuting routes;
- loss of nesting habitat;
- opening of previously sheltered woodland and field edges;
- increased light spill;
- changes in wind exposure and microclimate;
- interruption of historic field patterns;
- and gradual loss of the age and structural diversity of the hedgerow network.

Reinstatement does not immediately restore those functions. A newly planted hedge cannot replicate the height, density, root structure, woody biomass, invertebrate community or ecological continuity of an old established boundary. The time required to recover an equivalent landscape and ecological function may extend for decades.

The Applicant's landscape assessment itself recognises loss of trees and hedgerow sections along the Cable Route Corridor, effects upon Important Hedgerows and alteration of field patterns. In some locations the effects on landscape features are assessed as Major Adverse and Significant or Moderate Adverse and Significant. The Network therefore correctly observes that the Applicant cannot rely upon those same trees, hedges and woodland features to screen and assimilate the Scheme while simultaneously treating their removal, disturbance and later reinstatement as minor or readily compensable.

Important Hedgerows have not been fully resolved

The evidence also identifies uncertainty concerning the Hedgerows Regulations 1997. The Applicant's landscape baseline assumes that Important Hedgerows are present within the Order Limits where complete assessment has not been undertaken. South Norfolk Council expected a full assessment against all relevant importance criteria for any hedgerow proposed for removal, including off-site works necessary for construction access or transportation.

That work is material because an Important Hedgerow is not simply a generic habitat unit. It may have archaeological, historical, landscape and ecological significance arising from its age, species composition, relationship to historic boundaries or associated features.

The Network's evidence indicates that the Examination does not yet have a final schedule identifying:

- every hedgerow proposed for complete or partial removal;
- whether it qualifies as Important;
- the reason for removal;
- the length and age structure affected;
- associated mature or veteran trees;
- bat-roost and commuting potential;
- and the precise reinstatement or replacement proposed.

Without such a schedule, the cumulative significance of hedgerow loss cannot be properly assessed. BEPS has evidence that an important hedgerow has already been grubbed up in site 9 in anticipation of the DCO.

Accesses, visibility splays and AIL routes create particular risks

The Tree Warden Network places particular emphasis on access and transport works because these may cause some of the most serious tree damage.

The Applicant confirms that new accesses will be constructed where existing field accesses are unsuitable and that access points must accommodate articulated HGVs. Abnormal loads are expected to include transformers and cable drums, and HGVs may use internal access tracks as haul roads. Localised hedgerow removal may also be required for visibility splays.

Those activities may require more than removal of the vegetation directly within the road opening. They can generate:

- crown lifting to provide vertical clearance;
- lateral pruning for vehicle overhang;
- removal of boundary trees;
- excavation and surfacing within Root Protection Areas;
- drainage installation;
- soil compaction;

- repeated loading from heavy vehicles;
- bark and branch strikes;
- and the removal or continued cutting back of vegetation within visibility splays.

The impact area should therefore be based upon the complete swept path, manoeuvring envelope and construction method, not merely the width of the finished access.

The targeted consultation changes made this issue more significant. The Applicant consulted on alterations involving additional land, AIL routes, general construction traffic routes and changes around Site 1, the National Grid Substation Site and Site 7D. The Network states that, without a final arboricultural schedule and impact plan, consultees could not determine whether those changes would lead to additional removal, pruning, Root Protection Area incursion or compaction.

This is both a substantive and procedural deficiency. The environmental consequences of route changes cannot be dismissed as materially unchanged where the tree and hedgerow effects of the revised routes have not been definitively assessed.

Risks of delayed and indirect tree decline

The Network's evidence is also important because it explains that damage to mature and veteran trees may not be immediately apparent. Potential causes of delayed decline include:

- soil compaction;
- root severance;
- altered drainage;
- excessive or unbalanced pruning;
- branch and bark damage;
- introduction of pathogens;
- fungal infection;
- chemical or fuel contamination;
- and long-term physiological stress.

A tree may remain standing at the completion of construction while having suffered damage that leads to canopy decline, branch failure or death several years later. This is particularly serious for veteran trees, whose ecological value may depend upon a complex balance between living tissue, decay and structural defects.

The Network therefore requests post-construction monitoring of retained veteran and mature trees, hedgerows and affected woodland edges. Monitoring should expressly address compaction, root damage, bark damage, fungal infection, branch failure, soil contamination, hydrological change and delayed decline.

That is a necessary safeguard, but monitoring cannot replace avoidance. It may identify deterioration after it occurs; it cannot restore a veteran tree that has entered irreversible decline.

Operational pressure upon retained trees

The Tree Warden Network also raises a legitimate whole-life concern. Trees adjoining solar arrays and electrical infrastructure will continue to grow during the proposed operational period. Their normal growth may cause:

- panel shading;
- leaf, seed or sap deposition;
- root interaction with tracks or infrastructure;
- obstruction of CCTV sightlines;
- interference with security fencing;
- or operational access concerns.

Those effects may create continuing pressure for pruning or removal after consent.

The Network therefore seeks assurance that woodland trees and other retained trees will not be cut back during the life of the Scheme merely to prevent shading, leaf fall, sap fall, seed fall, root growth or other ordinary consequences of tree growth.

That concern should be addressed through enforceable requirements. A layout that places infrastructure so close to retained trees that ordinary future growth will create operational conflict has not genuinely avoided the impact. It has deferred it.

Any consent would therefore need to secure:

- sufficient stand-off for the anticipated mature dimensions of retained trees;
- a prohibition on pruning for solar-yield or ordinary maintenance convenience;
- independent arboricultural approval for exceptional safety works;
- retention of standing and fallen deadwood where safe;
- and replacement or remedial habitat provision where unavoidable safety work affects veteran features.

Protected bats reinforce the need for a precautionary approach

The Tree Warden Network's evidence has particular weight because of the relationship between the tree network and the Applicant's nationally important bat assemblage.

The identification of 621 trees with bat-roost potential means that tree works cannot be regarded as purely arboricultural. Roost occupancy can change over time, and many woodland bats use networks of alternative roosts rather than one permanent tree. Barbastelles in particular may change roost frequently and depend upon loose bark, splits, cavities and other features commonly associated with mature and veteran trees.

Accordingly, even where a particular tree is not confirmed as occupied at the time of the initial survey, it may form part of the functional roost resource supporting a maternity colony or wider local population.

The Network's request for a presumption of avoidance covering veteran trees, ancient trees, high-value mature trees, trees with potential roost features, ancient woodland edges and Important Hedgerows is therefore justified by both arboricultural and protected-species evidence.

Natural England's Relevant Representation does not displace that concern. Natural England welcomes the Applicant's statement that veteran trees will not be removed and that pruning will be avoided, but asks that the proposed 30-metre protection be recorded consistently in the LEMP, CEMP and DEMP. Natural England also retains an amber position in relation to protected species.

Natural England's position is therefore conditional upon the commitments being secured and upon protected-species issues being resolved. It does not establish that the current preliminary assessment is adequate or that the four identified access conflicts can safely be left to detailed design.

The consultation deficiency remains relevant

The Tree Warden Network also identifies a procedural problem. The full arboricultural position now revealed by the Environmental Statement—including the Preliminary AIA, the identified buffer conflicts, the number of veteran-feature trees, the scale of the potential bat-roost tree resource, the repeated hedgerow removals and the reliance on later surveys—was not available during the principal statutory consultation.

The subsequent targeted consultation did not provide a final arboricultural assessment of the revised land, AIL routes, access routes or general construction traffic routes. The Network therefore could not meaningfully determine the final effect of those changes upon trees and hedgerows.

This is relevant not simply as a historical complaint. It explains why important issues remain unresolved at Examination. The purpose of consultation was to allow specialist and local consultees to understand the likely significant effects and influence the design before the application was finalised. Where the necessary tree and hedgerow information was unavailable, the opportunity to secure genuine avoidance through consultation was materially reduced.

The result is an application that still proposes to resolve identified arboricultural conflicts after consent.

The Network's requested safeguards

The South Norfolk Tree Warden Network identifies seven principal measures necessary to address the deficiencies:

- A final Arboricultural Impact Assessment covering the entire Order Limits, Cable Route Corridor, highway works, AIL routes, visibility splays, compounds, accesses, haul routes, drainage and decommissioning assumptions.
- Final Tree Protection Plans and Root Protection Area plans showing construction exclusion zones, no-dig areas, fencing, ground protection, vehicle and haul-road stand-offs, storage exclusions, manoeuvring areas and lighting and chemical exclusion zones.

- Resolution of all four access conflicts with ancient and veteran tree buffers before consent.
- A presumption of avoidance for ancient, veteran and high-value mature trees, trees with potential roost features, ancient woodland edges and Important Hedgerows, supported by a specific alternatives assessment wherever harm is asserted to be unavoidable.
- Independent arboricultural and ecological clerks of works for vegetation works, accesses, AIL works, trenching, HDD compounds, haul routes and reinstatement, with authority to stop works.
- Long-term monitoring for delayed harm to retained trees, hedges and woodland edges.
- A prohibition on relevant works until the final AIA, Arboricultural Method Statement, Tree Protection Plans and hedgerow impact schedules have been approved following consultation with the local authority arboricultural officer and affected parish Tree Wardens.

These safeguards are proportionate to the scale of the Scheme and the value of the affected resource. They are not substitutes for removing unacceptable development, but they represent the minimum evidence and controls necessary before any residual impact could be evaluated.

Conclusion

The South Norfolk Tree Warden Network's evidence materially reinforces the objection to the Applicant's treatment of ancient woodland, veteran trees, mature trees and hedgerows.

It demonstrates that:

1. the affected resource forms the ecological and historic infrastructure of the Claylands landscape;
2. at least 70 veteran-feature trees occur within or close to the Order Limits;
3. 621 trees have potential to support roosting bats;
4. the arboricultural assessment remains preliminary;
5. four known conflicts with ancient or veteran tree buffers remain unresolved;
6. repeated hedgerow removals have not been assessed cumulatively;
7. the Important Hedgerow position is incomplete;
8. access, AIL and highway works remain capable of causing pruning, root damage and compaction;
9. delayed decline may not become apparent until years after construction;
10. and future tree growth may create pressure for operational pruning or removal.

The Network's conclusion is consistent with South Norfolk Council's earlier requirement that the tree surveys and full arboricultural impact assessment should inform design and be available for Examination. It is also consistent with Natural England's insistence that veteran-tree and ancient-woodland protection be recorded and secured across all project phases.

BEPS therefore submits that the Tree Warden evidence should be given substantial weight. The current application does not demonstrate that the Scheme can be constructed, operated, maintained and decommissioned without unacceptable harm to the mature tree, veteran tree, hedgerow and woodland network.

The appropriate response is not to defer the conflicts to detailed design. The Applicant should be required to produce a final, scheme-wide arboricultural assessment and fixed protection plans during the Examination and to remove or redesign every component that cannot be delivered without risking loss or deterioration of irreplaceable or high-value tree habitat. Until that work has been completed, the Examining Authority cannot safely conclude that the Applicant has complied with the mitigation hierarchy or the national policy protection afforded to ancient woodland and ancient and veteran trees.

8.7.6 Irreplaceable habitats, policy conflict and the mitigation hierarchy

The protection afforded to ancient woodland and ancient or veteran trees is materially stronger than the ordinary planning balance applicable to most ecological receptors. These habitats are not treated as interchangeable habitat units whose loss can be offset through planting elsewhere. They are classified as irreplaceable because their ecological characteristics arise from age, continuity, rarity, species assemblages, soils, fungi, deadwood and other processes that cannot realistically be recreated within a planning or project timescale.

This distinction is central to East Pye Solar. The Applicant cannot answer the proximity, enclosure or potential deterioration of ancient woodland and ancient or veteran trees by relying generally upon Biodiversity Net Gain, proposed woodland planting or future landscape management. The applicable policy requires the Applicant first to demonstrate avoidance and full mitigation of both direct and indirect effects. If loss or deterioration remains, development consent should not be granted unless the separate and demanding policy gateway of wholly exceptional reasons and a suitable compensation strategy is met.

The applicable EN-1 policy

The current Overarching National Policy Statement for Energy, EN-1 (2025), came into force on 6 January 2026. The Forestry Commission's February 2025 scoping response necessarily referred to the equivalent provisions of the then-current 2024 EN-1, at paragraphs 5.4.32 and 5.4.53. Those protections have been carried forward into the present EN-1 at paragraphs 5.4.33 and 5.4.55.

EN-1 paragraph 5.4.15 defines irreplaceable habitats as habitats that would be technically very difficult, or would take a very significant time, to restore, recreate or replace, having regard to their age, uniqueness, species diversity or rarity. Paragraph 5.4.16 expressly identifies ancient woodland and ancient and veteran trees as particularly valuable resources and records the Government's commitment to maintain and enhance them. Lowland fen is also expressly identified as an irreplaceable habitat.

Paragraph 5.4.33 requires applicants to include measures to mitigate fully the direct and indirect effects of development upon ancient woodland, ancient and veteran trees and other irreplaceable habitats during construction and operation. Paragraph 5.4.55 then directs that the Secretary of State should not grant development consent for development resulting in the loss or deterioration of an irreplaceable habitat unless there are wholly exceptional reasons and a suitable compensation strategy exists.

Those provisions create a sequential policy test:

1. the direct and indirect effects must be identified;
2. avoidance must be applied first;
3. effects that cannot be avoided must be fully mitigated;
4. the decision-maker must determine whether any loss or deterioration nevertheless remains; and
5. where it does, consent should not be granted unless wholly exceptional reasons and a suitable compensation strategy are both established.

The Applicant's approach does not yet satisfy that sequence. It begins from the proposition that the woodlands and veteran trees will remain physically present and then treats buffers, management plans and replacement planting as sufficient protection. That is not the same as demonstrating that loss or deterioration has been avoided.

Critical National Priority status does not disapply the protection

The Applicant may rely upon the Scheme's status as Critical National Priority infrastructure and upon the substantial national need for renewable generation. That status does not remove the requirement to apply the mitigation hierarchy.

EN-1 paragraph 4.2.23 expressly provides that applicants for CNP infrastructure must continue to demonstrate compliance with the relevant NPSs, the mitigation hierarchy and all applicable legal and regulatory requirements. Paragraph 4.2.24 requires an applicant to demonstrate that residual effects are genuinely effects that cannot be avoided, reduced or mitigated. Compensation does not reduce the underlying adverse effect and is addressed only after the avoidance and mitigation exercise has been completed.

EN-1 does establish a strong presumption in favour of CNP infrastructure where ordinary residual environmental effects remain after the mitigation hierarchy has been applied. However, paragraph 4.2.28 expressly excludes residual effects presenting an unacceptable risk to, or unacceptable interference with, irreplaceable habitats from that presumption. Irreplaceable habitats therefore occupy an exceptional position even within the CNP regime.

It follows that CNP status cannot be used to bypass the preliminary question of whether the Scheme creates an unacceptable risk of loss or deterioration. Nor does the general need for renewable energy establish that every proposed parcel, access, cable route, compound or infrastructure location is necessary in its present form.

The policy requires a project-specific demonstration that avoidable conflicts have been removed. Otherwise, the CNP presumption would deprive the express irreplaceable-habitat exception in paragraph 4.2.28 and the decision-making rule in paragraph 5.4.55 of practical effect.

EN-1 also recognises that a limited reduction in generation capacity may exceptionally be justified where mitigation would produce a significant environmental benefit outweighing the marginal loss of function. The Applicant cannot therefore assume that every panel parcel must be retained merely because its removal would reduce generating capacity. It must identify the actual capacity consequence and weigh it against the benefit of avoiding harm to an irreplaceable habitat.

The NPPF establishes the same policy sequence

The National Planning Policy Framework reinforces this approach. Paragraph 193(a) states that, where significant biodiversity harm cannot be avoided through locating development on an alternative site with less harmful impacts, adequately mitigated or, as a last resort, compensated, permission should be refused.

Paragraph 193(c) separately states that development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and ancient or veteran trees, should be refused unless wholly exceptional reasons and a suitable compensation strategy exist. Footnote 70 gives infrastructure projects as a possible example only where the public benefit would clearly outweigh the loss or deterioration. NSIP status is therefore capable of forming part of the exceptional-reasons case, but it does not automatically establish it.

Natural England and the Forestry Commission's standing advice is equally clear. It requires decision-makers to assess both direct and indirect effects during construction and operation and identifies alternative siting and redesign as methods of avoiding harm. It also states that compensation must not form part of the assessment of whether wholly exceptional reasons exist and must not be used to improve the perceived merits of the development proposal.

That separation is important. The correct approach is not:

the Scheme provides renewable energy and proposes extensive new planting, therefore some deterioration of ancient woodland is acceptable.

The proper sequence is:

has the Applicant first demonstrated that all loss and deterioration have been avoided or fully mitigated; if not, are there wholly exceptional reasons for the remaining harm; and, separately, is there a suitable compensation strategy?

The Applicant's BNG and landscape planting case cannot answer the first or second questions.

'Deterioration' includes indirect and functional harm

The policy is engaged not only where ancient woodland is felled or a veteran tree is removed, but also where the habitat deteriorates.

Natural England and Forestry Commission standing advice identifies direct and indirect pathways capable of causing deterioration. These include root damage, soil compaction, damage to understorey and fungi, fragmentation of functional habitat, air and light pollution, noise and vibration, altered drainage and water tables, woodland-edge removal, reduced semi-natural habitat around woodland, interruption of connections between woods and veteran trees, disturbance from traffic and reduced resilience to environmental change.

Those are the same pathways identified in relation to East Pye Solar:

- woodland enclosure by panel arrays and fencing;
- interruption of hedgerow and tree-line links;
- construction dust;
- lighting;
- noise and vibration;
- pile installation;
- HGV and abnormal-load movements;
- access widening;
- cable trenching;
- Root Protection Area incursion;
- soil compaction;
- altered surface-water and groundwater movement;
- loss or degradation of woodland-edge foraging habitat;
- and the displacement of deer and other animals into retained woodland.

The absence of direct felling therefore does not establish policy compliance. The relevant question is whether the physical condition, ecological resilience and functional relationships of the habitat will be maintained.

The East Pye evidence demonstrates an unusually high level of exposure

The Applicant's scoping evidence identified 29 Ancient Woodland Inventory areas comprising 53 woodland parcels within two kilometres of the principal sites. Six ancient woodland parcels were identified as directly adjoining the Scheme: Popes Wood, Doyly's Grove, Saxlingham Grove, Little Wood, Ringers Grove and Spring Wood. The same baseline identified lowland fen, another irreplaceable habitat, beside Site 7B.

The Planning Inspectorate's Scoping Opinion accordingly required assessment of those six adjoining woods, including direct and indirect effects, avoidance, mitigation and opportunities for enhancement. The Forestry Commission advised that the minimum buffer is not necessarily sufficient where impacts extend further and expressly raised woodland isolation, dust, Root Protection Areas and the need to maintain connections between woodland blocks.

The exposure is not uniform but includes particularly serious configurations:

- Ringers Grove is surrounded by the proposed Site 8 development on three sides;
- Doyly's Grove adjoins Site 7C to the south, west and north;
- Popes Wood adjoins the same development area;
- Saxlingham Grove and Little Wood are connected with known barbastelle maternity-colony landscapes;
- Spring Wood lies between the Site 3 parcels and is associated with both roosting habitat and converted wartime bat hibernacula.

Norfolk Wildlife Trust expressly identified Ringers Grove's three-sided enclosure and required the Applicant to demonstrate how connectivity between woodlands would be maintained. It sought

substantial buffers comprising genuine shrub and rough-grassland ecotones, rather than simple undeveloped strips.

Natural England has also confirmed that Saxlingham Grove and the Popes Wood–Doyly's Grove complex are hydrologically connected to the Order Limits through watercourse or groundwater pathways. Its conclusion that effects can be ruled out is expressly conditional upon the relevant pollution, runoff and water-quality measures being followed and legally secured.

These facts demonstrate that potential deterioration is not hypothetical. The Scheme is immediately adjacent to multiple irreplaceable habitats and introduces recognised impact pathways into their settings.

The Applicant has not demonstrated avoidance

The first stage of the mitigation hierarchy is avoidance. Natural England and Forestry Commission standing advice gives alternative siting and scheme redesign as examples of avoidance.

At East Pye, the evidence indicates that the Applicant has instead treated proximity to ancient woodland as a constraint to be managed largely by buffers. That is mitigation, not avoidance.

Avoidance would have required the design process to consider, among other matters:

- removing development that encloses Ringers Grove;
- withdrawing Site 7C development from the immediate setting of Doyly's Grove and Popes Wood;
- removing the remaining Site 3 development beside Spring Wood and the bat hibernacula;
- keeping substations, compounds and major accesses well beyond woodland influence zones;
- fixing cable routes outside Root Protection Areas;
- preserving broad, undeveloped connections between woodland blocks;
- and resolving every ancient or veteran tree conflict before submission.

There is evidence that these alternatives were available for consideration. Norfolk Wildlife Trust had previously recommended removal of Site 3 because of likely effects upon Spring Wood County Wildlife Site and the adjoining woodland. Although the Applicant reduced the parcel, it did not remove it in full, and concern remained regarding infrastructure in the field immediately west of the ancient woodland.

Partial reduction may reduce the scale of an impact, but it does not establish avoidance where the retained development continues to affect the same receptor through the same pathways. The Applicant has not produced an assessment demonstrating that the retained half of the parcel is outside the woodland's functional zone or is unused by the bats associated with Spring Wood and the adjoining hibernacula.

Likewise, the Applicant has retained development around Ringers Grove rather than avoiding its enclosure. A 30-metre strip around the woodland does not alter the fundamental fact that solar infrastructure would occupy the surrounding landscape on several sides.

Buffers are mitigation and must not be mischaracterised as avoidance

The Applicant's proposed 30-metre buffers may provide useful mitigation if correctly designed, protected and managed. Natural England welcomes them in principle but has required the commitment to be incorporated consistently into the LEMP, CEMP and DEMP. It also requires full BS5837-compliant survey work, strict Root Protection Area protection, arboricultural oversight, no-dig construction, compaction prevention, runoff and dust controls and micrositing.

Natural England's position therefore confirms that buffers do not operate alone. Their effectiveness depends upon several additional controls, some of which remain to be developed or secured.

The standing advice states that buffer size and type must respond to the scale and nature of the development and the character of the surrounding area. Fifteen metres is only a minimum root-protection distance, and a larger buffer is required where other effects extend farther. Buffers should contribute to the wider ecological network and should comprise semi-natural habitat.

The Applicant has not demonstrated on a woodland-by-woodland basis that 30 metres is sufficient to address:

- the near-enclosure of Ringers Grove;
- the multi-sided relationship between Site 7C, Doyly's Grove and Popes Wood;
- the barbastelle maternity-colony functions of Saxlingham Grove and Little Wood;
- the roosting and hibernation functions associated with Spring Wood;
- hydrological pathways to Saxlingham Grove, Popes Wood and Doyly's Grove;
- or construction dust, vibration, lighting and traffic associated with works close to those habitats.

Drawing the same numerical distance around each woodland is not evidence that the actual zone of influence has been avoided.

Deferred design is incompatible with the required certainty

The mitigation hierarchy cannot be demonstrated while known conflicts remain dependent upon post-consent design.

The South Norfolk Tree Warden Network records that the Applicant's arboricultural assessment remains preliminary and identifies four specific clashes between indicative access routes and ancient or veteran tree buffer zones. It requests that those conflicts be resolved before consent and that any access, visibility splay, AIL manoeuvre or haul road incapable of avoiding the buffer be redesigned.

That is the correct policy approach. A conflict with an irreplaceable-habitat buffer is not an ordinary detailed-design matter. Unless the Applicant identifies the final route, swept path, working width, excavation method and Root Protection Area implications, the Examining Authority cannot know whether deterioration will occur.

The Tree Warden evidence also records 621 trees with potential to support roosting bats and explains that the Applicant has not provided a route-wide assessment of cumulative hedgerow severance, lighting, access widening, haul-road disturbance and loss of tree-buffer integrity.

South Norfolk Council had already advised that a full arboricultural impact assessment should be available for Examination and that tree surveys should inform detailed design rather than being deferred until later. It also required possible positional conflicts to be confirmed before approval of the Scheme, not merely before commencement.

Where the design remains flexible, EN-1 requires the ES to assess the likely worst-case effects. The Applicant cannot rely upon the possibility that micrositing may later avoid a conflict without also demonstrating that a feasible, environmentally acceptable location exists within the authorised envelope.

Biodiversity Net Gain does not resolve irreplaceable-habitat harm

The Applicant's claimed BNG is not evidence that the policy test for ancient woodland or veteran trees has been met.

The statutory Biodiversity Gain Hierarchy is distinct from the ordinary ecological mitigation hierarchy and does not apply to irreplaceable habitats in the same way as ordinary metric habitats. Government guidance confirms that BNG does not replace the requirement first to avoid significant biodiversity harm and that irreplaceable habitats are subject to separate arrangements.

This is necessary because a metric cannot reproduce the defining characteristics of ancient woodland or an ancient tree. New woodland planting may eventually create valuable habitat, but it cannot reproduce:

- ancient soils and undisturbed soil profiles;
- long-established fungal and microbial communities;
- veteran decay structures;
- centuries of ecological continuity;
- the existing genetic resource;
- or current relationships between the woodland, protected species and the surrounding habitat network.

Natural England and Forestry Commission standing advice expressly states that new woodland is not a direct replacement for lost or damaged ancient woodland and that compensation can only ever partially compensate for the damage. It also states that ancient woodland cannot be relocated because the same ecological conditions cannot be recreated elsewhere.

Accordingly, the Applicant cannot place proposed woodland creation, hedgerow planting or habitat units on the positive side of the planning balance and treat them as cancelling deterioration of an irreplaceable habitat. Those measures may constitute enhancement or, in exceptional circumstances, part of a compensation strategy. They do not turn deterioration into no deterioration.

No suitable irreplaceable-habitat compensation case has been presented

The Applicant's case appears to be that no ancient woodland or ancient or veteran tree will be lost or deteriorated. It has therefore not advanced a distinct compensation strategy addressing such loss or deterioration under EN-1 paragraph 5.4.55.

That creates a clear consequence for the Examination.

If the Examining Authority concludes that deterioration cannot presently be excluded—for example through enclosure, loss of connectivity, hydrological change, Root Protection Area conflict, lighting, dust, vibration or delayed tree decline—the Applicant cannot fall back upon its general BNG proposals. A suitable compensation strategy directed specifically to the nature, scale and location of the irreplaceable-habitat harm would be required.

Such a strategy would need to be additional to ordinary mitigation and BNG and would require, among other matters:

- identification of the exact habitat and function lost or deteriorated;
- evidence that avoidance and full mitigation had first been exhausted;
- restoration and management of relevant existing ancient woodland;
- reconnection of affected woodland and veteran-tree networks;
- long-term monitoring and remedial measures;
- secure land, funding and governance;
- and evidence that the measures were proportionate to the harm while acknowledging that full replacement is impossible.

No such case has been presented because the Applicant assumes the policy gateway will not be engaged. That assumption is unsafe while the arboricultural assessment remains preliminary and the indirect effects described above remain unresolved.

Wholly exceptional reasons have not been demonstrated for avoidable harm

The Scheme provides nationally important renewable-energy benefits and falls within the CNP policy. Those matters attract significant weight. They do not demonstrate that deterioration of each affected woodland or tree is unavoidable.

A wholly exceptional reasons case would need to address why the public benefit requires the particular harmful element in the particular location. It is not enough to establish that solar generation is needed nationally. The Applicant would need to show, for example, why:

- panels must surround Ringers Grove on three sides;
- development must remain beside Spring Wood despite NWT's avoidance request;
- Site 7C must occupy the immediate setting of Doyly's Grove and Popes Wood;
- an access must conflict with an ancient or veteran tree buffer;
- or a cable, compound or road cannot be moved outside the relevant zone of influence.

The policy test would otherwise be satisfied by every renewable-energy NSIP irrespective of its design, making the express protection for irreplaceable habitats ineffective.

BEPS does not submit that renewable infrastructure could never meet the wholly exceptional reasons test. The submission is narrower: that the Applicant has not demonstrated wholly exceptional reasons for avoidable deterioration created by the present site selection, layout and retained design flexibility.

Natural England's 'green' position does not determine policy compliance

Natural England presently categorises ancient woodland and ancient or veteran trees as a green issue. That position should be recorded accurately, but its basis must also be understood.

Natural England's green classification is expressly subject to the proposed mitigation being secured. It requires the 30-metre buffer to be incorporated into the LEMP, CEMP and DEMP and requires strict Root Protection Area controls, an updated arboricultural survey, no-dig methods, arboricultural supervision, prevention of compaction, dust and runoff control and micrositing.

It is therefore a conditional consultation position, not a determination that all direct and indirect effects have been fully assessed or that the statutory decision-making test has been satisfied.

It also does not answer the separate evidence from:

- the Forestry Commission concerning woodland isolation and connectivity;
- Norfolk Wildlife Trust concerning Ringers Grove, Spring Wood and woodland ecotones;
- the Tree Warden Network concerning the preliminary AIA and unresolved access conflicts;
- South Norfolk Council concerning the need for a full arboricultural assessment;
- or Natural England's own acknowledgement of hydrological connectivity.

The Secretary of State remains responsible for applying EN-1 paragraph 5.4.55 on the complete evidence.

Conclusion

The policy protection for irreplaceable habitats is not satisfied merely because the Applicant does not propose to fell ancient woodland. The relevant test includes deterioration through indirect, functional and cumulative effects.

East Pye Solar directly adjoins six ancient woods, surrounds Ringers Grove on three sides, borders the Spring Wood maternity and hibernation landscape, lies beside barbastelle maternity woodland at Saxlingham Grove and Little Wood, and affects a wider network of veteran and mature trees, hedgerows and hydrologically connected habitats. The arboricultural assessment remains preliminary, known access-buffer conflicts remain unresolved and the Applicant relies upon buffers and later detailed design to demonstrate acceptability.

The applicable policy sequence has not been completed. In particular, the Applicant has not demonstrated that:

- all reasonable avoidance has been applied;
- each woodland's actual zone of influence has been identified;
- the 30-metre buffer fully mitigates every direct and indirect pathway;
- the remaining development will not cause woodland enclosure or functional fragmentation;
- all ancient and veteran tree conflicts can be resolved within the authorised envelope;
- hydrological and construction effects will not cause deterioration;
- or any residual deterioration is supported by wholly exceptional reasons and a suitable, habitat-specific compensation strategy.

BEPS therefore submits that the Scheme remains in conflict with EN-1 paragraphs 4.2.23–4.2.28, 5.4.33 and 5.4.55 and with NPPF paragraph 193. CNP status does not remove that conflict and BNG cannot compensate for it.

The development parcels and infrastructure that enclose, fragment or create unresolved risks to ancient woodland and ancient or veteran trees should be removed or relocated. If the Applicant cannot demonstrate before the close of Examination that loss and deterioration will be avoided, the irreplaceable-habitat policy gateway is engaged. In the absence of a demonstrated wholly exceptional reasons case and a suitable compensation strategy, development consent should not be granted.

8.7.7 Conclusions and remedies sought

The evidence considered in Sections 8.7.1–8.7.6 demonstrates that ancient woodland, ancient and veteran trees, mature hedgerows and the wider tree network are not peripheral constraints capable of being addressed by standard stand-off distances and post-consent management. They are defining features of the ecological structure of the East Pye landscape.

The Planning Inspectorate's Scoping Opinion identified six ancient woodland parcels directly adjoining the proposed development: Popes Wood, Doyly's Grove, Saxlingham Grove, Little Wood, Ringers Grove and Spring Wood. It required the Environmental Statement to assess the effects upon those woods and upon ancient and veteran trees, including the scope to avoid and mitigate harm. It also expressly identified construction dust as a potential impact pathway and confirmed that 15 metres is only a minimum buffer, to be increased where the nature or extent of the effects requires it.

The significance of that concentration cannot be reduced to the absence of development inside the mapped ancient-woodland polygons. The Scheme would introduce solar arrays, fencing, access roads, cable works, substations, construction compounds, lighting, drainage infrastructure and prolonged operational activity into the immediate setting of six irreplaceable woodland sites. In several cases, development would border the woods on more than one side or occupy land forming part of their wider ecological setting.

The Applicant's own scoping evidence records Doyly's Grove adjoining Sub-Site 7C to the south, west and north, with Popes Wood also adjoining that sub-site; Saxlingham Grove adjoining Sub-Sites 7F and 7G; Little Wood adjoining Sub-Site 7H; Spring Wood immediately between Sub-Sites 3A and 3B; and Ringers Grove immediately adjacent to Site 8A.

Those relationships engage the policy protection against both loss and deterioration of irreplaceable habitat. The evidence does not establish that deterioration has been avoided.

The woodland resource must be assessed as a connected network

The ancient woods do not function as six isolated receptors. They form part of the historic South Norfolk Claylands network of woodlands, hedgerows, mature field trees, ponds, watercourses, lanes, verges and field margins.

The Forestry Commission's advice expressly warns that isolation is a particular concern where woodland is surrounded by development on several sides. It requires consideration of the connectivity between woodland, individual trees and hedgerows and recommends that new planting should link existing woods and form meaningful connected woodland blocks rather than isolated screening belts. It also identifies root damage, trenching, soil compaction, chemical contamination and dust as indirect effects requiring protection beyond the woodland boundary.

The Norfolk Wildlife Trust's Claylands evidence similarly emphasises that ecological benefit depends upon restoring and strengthening connections between habitats. Linking existing hedges, grassland and other semi-natural features multiplies their ecological value, whereas isolated habitat creation does not provide the same function.

The Applicant has not provided a final, scheme-wide woodland-connectivity assessment establishing:

- the existing connections between the six ancient woods and the wider woodland network;
- the species and ecological functions dependent upon each connection;
- the routes used by bats and other woodland species;
- the effects of fencing, access roads, cable crossings, lighting and maintenance activity;
- the extent to which woodland-edge habitat will be altered;
- or the time required for proposed planting to become functionally effective.

Instead, the assessment relies largely upon retention of woodland, standard buffer distances and future habitat creation. That approach does not establish that the woods will retain their ecological resilience or their functional relationship with the surrounding landscape.

The ancient woods perform protected-species functions

The woodland issue cannot be separated from the Applicant's own bat findings.

Saxlingham Grove, Little Wood and Spring Wood are associated with known or reported barbastelle maternity or roosting resources. Spring Wood also adjoins the converted former Second World War shelters used as bat hibernacula. The Applicant identifies the wider Order Limits as supporting a nationally important bat assemblage and records mature trees, hedgerows and tree lines as important commuting, foraging and potential roosting habitat.

Norfolk Wildlife Trust considers bats to be one of the most significant ecological issues arising from the application. It records the Applicant's conclusion that the landscape supports a nationally

important assemblage and challenges the proposition that temporary hedgerow gaps, lighting and construction disturbance will not materially affect habitat functionality. NWT also warns that habitat creation cannot automatically replace established commuting routes and mature landscape features that may take decades to develop equivalent function.

This materially increases the sensitivity of the ancient-woodland setting. Protection cannot be confined to roots and woodland canopy. It must also maintain:

- dark woodland edges;
- maternity-roost support habitat;
- hibernation access;
- alternative tree-roost resources;
- prey-rich margins;
- connected hedgerows;
- and unobstructed movement between woodland blocks.

The Applicant has not demonstrated that the proposed layout and outline mitigation will preserve all of those functions.

Spring Wood demonstrates the failure to achieve avoidance

Spring Wood provides the clearest example of the difference between reducing a development parcel and avoiding an ecological conflict.

The Applicant's scoping report records Spring Wood as ancient replanted woodland and priority deciduous woodland immediately between Sites 3A and 3B. Norfolk Wildlife Trust expressly advised during consultation that Site 3 should be dropped from the site-selection process because of potential effects upon Spring Wood County Wildlife Site. Although the Applicant removed the field south of Spring Wood from the panel area, NWT remained concerned about works in the area, particularly the substation proposed immediately west of the woodland, and advised that an even wider buffer might be required.

NWT's Relevant Representation maintains that position. It states that Site 3 had previously been recommended for removal because of effects upon the County Wildlife Site, ancient woodland and bats; welcomes the changes made; but remains concerned and ideally recommends that the site be removed from the overall Scheme.

The Applicant has therefore not followed the avoidance advice in full. Only part of the affected parcel has been removed, while infrastructure remains beside the same ancient woodland, known bat habitat and hibernation resource.

A partial reduction may reduce the extent of development, but it does not demonstrate that the remaining land is ecologically unimportant or that the same impact pathways have been eliminated. No complete tracking, hibernacula-specific disturbance assessment or woodland-function assessment has been provided to show that the retained part of Site 3 falls outside the functional landscape of Spring Wood.

The mitigation hierarchy has consequently not been exhausted at this location.

Buffers have not been shown to prevent deterioration

The proposed 30-metre ancient-woodland buffer is a useful improvement upon the minimum 15-metre root-protection distance. It is not evidence that every indirect effect has been avoided.

The Forestry Commission's advice is explicit that the minimum distance must be increased where effects extend farther, including construction dust and traffic-related pollution. It also states that buffers should contribute to ecological networks and consist of appropriate semi-natural habitat.

Norfolk Wildlife Trust likewise seeks buffers comprising genuine ecotones of rough grassland and shrubs and advises that greater distances may be necessary in sensitive locations. Its Relevant Representation raises concern that the Applicant's construction and operational buffers may be insufficient for ancient woodland and other irreplaceable habitats, particularly where the locations of HDD compounds, construction lighting and temporary works remain unresolved.

Natural England presently identifies ancient woodland and ancient or veteran trees as a green matter, but that position is conditional. Natural England requires the 30-metre commitment to be recorded consistently and secured through the LEMP, CEMP and DEMP. It also notes that veteran trees are not to be removed and pruning is to be avoided.

Natural England's position does not establish that a uniform 30-metre buffer addresses:

- enclosure and loss of landscape connectivity;
- hydrological change;
- construction dust;
- lighting;
- noise and vibration;
- piling;
- disturbance of bat roosts or hibernacula;
- altered woodland-edge microclimate;
- Root Protection Area conflicts;
- displaced deer browsing;
- or operational pressure arising from future tree growth.

Natural England also confirms that Saxlingham Grove and the Popes Wood–Doyly's Grove complex are hydrologically connected to the Order Limits. Its conclusion that damage can be ruled out is expressly dependent upon water-quality, pollution-prevention and surface-water measures being followed and legally secured.

The proposed buffers are therefore part of a package of conditional mitigation. They are not a finding of no effect and should not be treated as a substitute for site-specific assessment of the actual zone of influence around each woodland.

The arboricultural baseline and design remain unresolved

The evidence concerning individual trees and hedgerows reinforces the woodland objection.

The South Norfolk Tree Warden Network records that the Applicant's baseline includes:

- 49 trees with veteran features within the Order Limits;
- a further 21 veteran-feature trees within 30 metres of the boundary;
- native hedgerows throughout the sub-sites;
- and 621 trees assessed as having potential to support roosting bats.

It also records that Appendix 7.10 remains a Preliminary Arboricultural Impact Assessment, rather than a final, construction-ready assessment of all access routes, visibility splays, AIL routes, compounds, haul roads, cable works and Root Protection Area incursions.

Most significantly, the Applicant has already identified four clashes between indicative access routes and buffers applied to ancient or veteran trees. The Applicant proposes to resolve those clashes at detailed design because the routes are indicative and flexible within Work No. 4. The Tree Warden Network objects to that approach and requests that every conflict be resolved before consent.

That objection is well founded. A known conflict with the protection area of an irreplaceable tree cannot properly be treated as a routine construction detail. Until the final route, working width, vehicle swept path, surfacing method and Root Protection Area implications are known, the Examining Authority cannot determine whether deterioration will occur.

The same uncertainty affects repeated hedgerow gaps, visibility splays, cable crossings and highway works. Although each individual removal may be described as localised, the cumulative effect across the Order Limits may include loss of mature structure, fragmentation of bat corridors and permanent alteration of the historic field network. The Tree Warden Network expressly states that the ES does not contain a clear route-wide analysis of cumulative hedgerow severance, veteran-tree buffer disruption, construction lighting, access widening or the time needed for replacement planting to become functionally equivalent.

The Applicant's conclusion of no unacceptable arboricultural or woodland effect is therefore premature.

Biodiversity Net Gain does not answer the irreplaceable-habitat objection

The Applicant's proposed woodland, hedgerow and grassland creation may produce ecological benefits. It does not demonstrate that deterioration of ancient woodland or ancient and veteran trees has been avoided.

Ancient woodland and veteran trees derive their value from continuity over centuries. New planting cannot reproduce ancient soils, fungal networks, veteran decay features, hollowing, deadwood assemblages or established relationships with protected species within the operational life of the Scheme.

Norfolk Wildlife Trust warns that biodiversity metrics do not fully account for temporal losses of ecological function, particularly for bats and species dependent upon mature hedgerows and connected habitat networks. It therefore seeks early habitat establishment, meaningful success criteria, long-term monitoring and adaptive management.

Natural England similarly welcomes the proposed net gain but asks for clearer success criteria, remedial triggers and long-term management responsibilities.

BNG should therefore be treated as a separate enhancement obligation. It cannot be used to convert a risk of deterioration to irreplaceable habitat into a neutral or beneficial effect.

Natural England's consultation position is not determinative

BEPS recognises that Natural England currently records no amber or red issue specifically for ancient woodland and veteran trees. That position must be represented accurately.

It is, however, expressly subject to the appropriate requirements being adequately secured. Natural England seeks consistent 30-metre protection in the LEMP, CEMP and DEMP and relies upon construction pollution and runoff controls when reaching its conclusions concerning hydrologically connected sites. It also retains an amber position concerning protected species and advises that licences may be required for roosting bats and other species.

The green classification therefore does not determine:

- whether the six woods will become ecologically isolated;
- whether Spring Wood has been adequately avoided;
- whether the four known tree-buffer clashes can be resolved;
- whether the preliminary AIA is sufficient;
- whether the woodland-dependent bat functions will be retained;
- or whether the proposed buffers address the full zone of influence.

Those matters remain for the Examining Authority and ultimately the Secretary of State on the whole of the evidence.

Overall conclusion

The Applicant has not demonstrated that East Pye Solar will avoid loss or deterioration of ancient woodland, ancient or veteran trees and the wider mature tree and hedgerow network.

The principal unresolved matters are cumulative and mutually reinforcing:

1. six ancient woodland parcels directly adjoin the Scheme;
2. development borders some woods on multiple sides;
3. several woods support or are associated with nationally important bat functions;
4. Spring Wood is linked to maternity, commuting and hibernation habitat;
5. the Forestry Commission identifies woodland isolation, root damage, compaction and wider connectivity as material concerns;

6. NWT continues to seek removal of Site 3 and wider, ecologically functioning buffers;
7. Natural England's conclusions depend upon mitigation being secured and consistently applied;
8. at least 70 veteran-feature trees occur within or close to the Order Limits;
9. 621 trees have bat-roost potential;
10. the AIA remains preliminary;
11. and four known access conflicts with ancient or veteran tree buffers remain unresolved.

This is not an evidential basis upon which the Examining Authority can safely conclude that deterioration will not occur.

The Applicant's case depends upon the proposition that the woods and veteran trees will remain physically present and that future plans, buffers and planting will control the indirect effects. Physical retention is not the relevant policy test. The issue is whether the habitats will retain their condition, resilience, ecological setting, protected-species functions and connectivity throughout construction, operation, equipment replacement and decommissioning.

That has not been established.

Remedies sought

BEPS submits that the following remedies are required before any conclusion of acceptability could be reached.

First, the remaining development at Site 3 adjoining Spring Wood, including infrastructure within its functional ecological setting, should be removed. This is the only response consistent with NWT's express avoidance advice and the combined ancient-woodland, maternity-roost and hibernation evidence.

Secondly, development enclosing or closely surrounding Ringers Grove, Doyly's Grove, Popes Wood, Saxlingham Grove and Little Wood should be redesigned to retain broad, undeveloped and dark ecological connections between the woods and the wider hedgerow and woodland network. A standard buffer around the woodland boundary is not sufficient where the wider landscape remains enclosed.

Thirdly, the Applicant should submit during the Examination:

- a final, scheme-wide Arboricultural Impact Assessment;
- final Tree Protection Plans;
- fixed Root Protection Areas;
- a complete schedule of tree and hedgerow retention, removal and pruning;
- all access, AIL, highway and cable-route impacts;
- and a woodland-by-woodland assessment of hydrology, dust, lighting, noise, vibration, edge effects and connectivity.

Fourthly, all four identified conflicts between access routes and ancient or veteran tree buffers must be resolved through fixed design before consent. The DCO should not permit those conflicts to be transferred to detailed design within a flexible works envelope.

Fifthly, every ancient-woodland and veteran-tree buffer should be based upon the site-specific zone of influence rather than a uniform numerical distance. Buffers should comprise functioning ecotones of native scrub, rough grassland and other appropriate semi-natural habitat and should remain free from compounds, roads, storage, cables, drainage infrastructure, fencing, lighting and ordinary operational activity.

Sixthly, the DCO should prohibit removal or pruning of ancient and veteran trees and prohibit later pruning of retained trees for panel efficiency, shading, leaf fall, CCTV visibility or ordinary operational convenience.

Seventhly, the final CEMP, LEMP, OEMP and DEMP should secure consistent woodland and tree protections for the entire project life, supported by independent arboricultural and ecological supervision, measurable success criteria, long-term monitoring and enforceable remedial action.

If the Applicant cannot provide that evidence and redesign before the close of Examination, the risk of deterioration to irreplaceable habitat remains unresolved. In that event, the Applicant has not demonstrated compliance with the mitigation hierarchy or the policy protection afforded to ancient woodland and ancient or veteran trees.

BEPS therefore submits that the ancient-woodland and tree evidence weighs strongly against the grant of development consent in the Scheme's present form. The affected parcels and infrastructure should be removed or relocated. Failing that, the Secretary of State should refuse consent because the Applicant has not demonstrated that loss or deterioration of irreplaceable habitat will be avoided.

8.8 Hydrologically connected ecology and chalk streams

The aquatic ecology affected by East Pye Solar cannot be assessed as a series of isolated ditches, crossings and watercourse buffers. The Applicant's own evidence identifies a connected network of rivers, becks, tributaries, field drains, ponds and seasonally flowing ditches extending across the Order Limits and into the River Tas and River Waveney catchments. Water, sediment, pollutants, aquatic organisms and ecological effects can move through that network beyond the immediate footprint of an individual construction activity.

This section should be read alongside Chapter 9 of this Written Representation, which addresses the adequacy of the Applicant's hydrological, hydrogeological, flood-risk, water-quality and Water Framework Directive assessments. The matter must nevertheless remain within Chapter 8 because hydrological connectivity is not merely a water-engineering issue. It is the mechanism by which aquatic and riparian habitats function, fish and invertebrates disperse, chalk-stream characteristics are maintained and pollution or sediment effects may reach downstream ecological receptors.

The Applicant's Aquatic Habitat Assessment identifies 21 waterbodies within or adjacent to the Order Limits. These include connected reaches and tributaries of Hempnall Beck and the River Tas, Pulham Beck and Starston Brook, Broome Beck and extensive field-ditch systems. The assessment uses hydrological connectivity, including Environment Agency information from downstream monitoring locations, to infer the likely fish and aquatic-invertebrate assemblages within the Scheme. That approach confirms that the affected watercourses are parts of wider catchment systems rather than independent local drains.

The central deficiency is that the Applicant relies upon connectivity when determining which species may be present, but does not assess the same connectivity adequately when determining how construction sediment, pollutants, altered runoff, drilling-fluid releases or changes to flow may propagate downstream. There is no equivalent catchment-scale analysis of the geographical extent, concentration, timing and ecological consequence of those effects.

8.8.1 River Tas, Hempnall Beck and connected tributaries

The River Tas system is the most ecologically sensitive aquatic network affected by the Scheme. The Applicant's Scoping Report identifies Hempnall Beck as a main river flowing between Site 7 and Sites 4–6. It identifies the River Tas itself as a main river running along the boundaries between Sub-Sites 8A and 8B, together with ordinary tributaries of the River Tas along or adjacent to other development parcels.

The Environment Agency has expressly identified the River Tas as a chalk-stream priority habitat and a focus of its ecological activity. At scoping, the Agency recorded that the River Tas was within the red-line boundary, was ecologically classified as Poor, and required a Water Framework Directive assessment because inadequately controlled works could cause prohibited deterioration. The Agency also sought watercourse and wetland Biodiversity Net Gain aligned with River Basin Management Plans, WFD objectives, catchment plans and the emerging Local Nature Recovery Strategy.

That priority status is important. Chalk streams are groundwater-influenced systems whose ecological character depends upon the interaction of the chalk aquifer, spring and seepage flows, stable water chemistry, relatively consistent temperatures, clean gravels, marginal vegetation and connected tributaries. Their value cannot be protected merely by avoiding direct excavation within the main river channel. Activities throughout the contributing catchment may affect the watercourse by changing runoff, sediment supply, groundwater movement or water quality.

The ecological function of the River Tas must therefore be understood at catchment scale. The main channel receives water and material from Hempnall Beck, smaller tributaries, roadside drains, field ditches and seasonally active headwaters. Some of those features may appear dry during summer or early autumn but carry significant flow during wetter periods. They may provide seasonal habitat, dispersal routes and pathways through which pollutants and fine sediment enter the main watercourse.

The Applicant recognised that ditch networks and watercourses are ecological features from the beginning of the project. Its Scoping Report states that the design would seek to avoid ditch networks and watercourses and acknowledges that ditches provide habitat for protected

mammals and foraging or commuting bats. It also proposed targeted otter and water-vole surveys where construction or habitat-clearance works could not be kept at least 10 metres from watercourse banks.

That approach is too narrow for aquatic ecology. A ten-metre construction distance may reduce immediate bank disturbance, but it does not define the hydrological zone of influence. Runoff generated farther upslope, drainage changes, cable trenches, access roads, piling, soil compaction or contamination may all reach a watercourse through topography, field drains or groundwater pathways.

The relationship between groundwater and surface water is particularly material. The Scoping Report identifies Principal and Secondary Aquifers beneath parts of the Scheme. The Environment Agency advised that the Applicant had not adequately demonstrated the relationship between groundwater and surface-water bodies and required further evaluation of that relationship. It also required hydrogeological risk assessment where HDD or other trenchless works could interact with aquifers, watercourses or sensitive ecological receptors.

The relevant pathways include:

- direct runoff from disturbed soil into ditches and streams;
- mobilisation of fine sediment from haul roads, access works and cable trenches;
- contaminated runoff containing fuels, oils, cementitious material or other construction substances;
- altered infiltration and groundwater recharge caused by compaction and new surfaces;
- preferential flow along cable trenches;
- temporary dewatering or interception of shallow groundwater;
- drilling-fluid escape during HDD;
- changes to bank structure or channel form at crossings;
- obstruction or delay of fish movement;
- and changes to the volume, timing or direction of surface-water flow.

Those are ecological pathways because they affect habitat quality, spawning gravels, dissolved oxygen, aquatic plants, macroinvertebrates and fish. Fine sediment may fill gravel interstices, smother eggs and reduce the availability of refuge habitat. Pollution can cause acute mortality or chronic ecological stress. Flow alteration can affect water depth, velocity, temperature, oxygenation and the seasonal accessibility of tributaries.

The Applicant's aquatic evidence itself records sediment release, increased turbidity, accidental pollution, temporary alteration of drainage or flow pathways and physical effects at crossings as relevant construction risks. It also records failing fish and dissolved-oxygen or phosphate elements within parts of the connected River Tas waterbody and recognises the need to avoid WFD deterioration.

These existing pressures increase the sensitivity of the receptor. A waterbody already failing particular ecological or chemical elements has less capacity to absorb additional disturbance. A temporary effect cannot be dismissed simply because the construction activity eventually ceases.

Loss of a spawning season, deposition of fine sediment or a pollution incident may affect fish or invertebrate populations beyond the duration of the works.

The Environment Agency has expressly challenged the Applicant's definition of short-term ecological effects. Chapter 8 defines short-term or temporary effects as lasting up to two years. The Agency states that this is too long for fish because two consecutive years of disturbance may affect two spawning or juvenile year classes and could significantly affect populations or contribute to WFD deterioration. It requires activities or effects lasting more than six months to be assessed as if they were permanent.

That criticism is directly relevant to the dispersed construction programme. Watercourse crossings, cable works, haul roads and reinstatement may not all affect one location continuously for two years, but repeated works across the same catchment can expose different tributaries and alternative habitats over successive seasons. A catchment-wide fish population may therefore experience a sequence of disturbances rather than one isolated temporary event.

The River Tas network is also known to support notable fish and protected aquatic species. At scoping, the Environment Agency identified records within Hempnall Beck of brown or sea trout, bullhead, European eel and brook lamprey. It required fish to be included in the desk study and required the effects of continuous HDD noise, sediment runoff and pollution to be assessed.

The ecological sensitivity is further reinforced by the white-clawed crayfish evidence. The Environment Agency's scoping response recorded the species in the River Tas and required a commitment to undertake surveys at relevant locations when the works affecting watercourses were known. Subsequent evidence submitted by a local resident records repeated Norfolk Rivers Trust surveys confirming a breeding white-clawed crayfish population at Saxlingham Thorpe, together with other notable species including river lamprey and brown trout.

That submission also identifies the pathways by which East Pye works could affect the population: connected ditches, drains, culverts, streams, groundwater runoff, sediment changes, contamination and potential bentonite releases associated with trenchless cable installation. The precise distribution of white-clawed crayfish is addressed elsewhere in this Chapter, but its confirmed presence within the receiving chalk-stream system is material here because it demonstrates the ecological consequences of getting the hydrological assessment wrong.

The Examining Authority has already determined that the aquatic baseline requires further attention. Its Rule 6 letter quotes Appendix 8.9's acknowledgement that the surveys were undertaken during unusually dry conditions and may under-represent the typical wetted extent and habitat availability of ephemeral headwaters and field ditches. Having regard to the survey timing and representations from BEPS, South Norfolk Council and Norfolk Wildlife Trust, the Examining Authority requested further information and survey proposals concerning white-clawed crayfish.

The River Tas and Hempnall Beck should therefore be assessed as a connected chalk-stream ecological system. The question is not limited to whether direct works within the main river are undertaken by HDD. It is whether all construction and operational activities within the hydrologically connected catchment have been assessed sufficiently to demonstrate that they will not:

- add fine sediment;
- mobilise contaminants;
- alter groundwater or surface-water flow;
- degrade spawning and refuge habitat;
- obstruct fish movement;
- spread invasive species or crayfish disease;
- or reduce the ecological status and resilience of the chalk-stream system.

The Applicant has not supplied a catchment-scale ecological model capable of answering those questions. The use of general pollution-prevention measures and outline water-management plans may reduce risk, but it does not establish the spatial extent or ecological significance of the effects being mitigated.

8.8.2 River Waveney-linked systems

The ecological connectivity issue is not confined to the River Tas catchment. The eastern and southern parts of the Scheme interact with watercourses and ditch networks draining towards the River Waveney system.

The Applicant's Scoping Report identifies Broome Beck as an ordinary watercourse adjoining the southern boundaries of Sub-Sites 10A and 10C before becoming a main river shortly downstream. It also identifies ordinary tributaries of Starston Brook along or adjacent to the south-western part of Sub-Site 4A. The Aquatic Habitat Assessment includes Starston Brook, Broome Beck and associated field ditches within the wider connected aquatic baseline.

These features should not be treated as low-value drainage channels simply because parts are classified as ordinary watercourses or are seasonally dry. Their ecological functions include:

- conveying water and sediment to downstream brooks;
- providing habitat for aquatic and semi-aquatic invertebrates;
- offering seasonal access and refuge for fish and amphibians;
- connecting ponds, wet field margins and riparian habitats;
- providing foraging routes for bats and birds;
- and acting as pathways for the spread of both native organisms and invasive species.

The distinction between a main river and an ordinary watercourse is principally regulatory. It does not determine ecological value. A small tributary may be critical to the quality of a downstream waterbody because it contributes clean flow, spawning habitat, refuge from high flows or connectivity between otherwise isolated habitats.

The Scheme introduces several potential impact mechanisms within these Waveney-linked systems.

Cable installation may require crossings of watercourses and ditches by trenchless or open-cut techniques. Even where HDD is used, launch and reception compounds, access routes, drilling-fluid management, dewatering and working areas remain necessary. An HDD bore may also

interact with shallow groundwater, mobilise existing contamination or produce a drilling-fluid breakout into the channel or adjoining ground.

At scoping, the Environment Agency stated that the final cable and haul-road routes had not been fixed and that their watercourse effects could not be determined if the Water Environment were scoped out. It required a WFD assessment, MoRPh or River Corridor surveys, information on crossing methods and environmental control documents including a drilling-fluid breakout plan.

Access works create separate effects. Temporary or permanent crossings may require culverts, bridges, bank works, vegetation clearance and repeated HGV movements. These activities may compact banks, damage marginal vegetation, introduce sediment, interrupt channel continuity and alter flow.

The Environment Agency's application-stage representation confirms that the Flood Risk Assessment continues to refer to the possible use of culverts. The Agency objects to new culverts and recommends clear-span bridges in accordance with its anti-culverting policy because culverts may increase flood risk and damage watercourse function. It also requires the locations and set-backs of main-river crossing works and HDD pits to be confirmed.

The ecological objection to culverting is additional to the flood-risk objection. A culvert may:

- remove natural bed and bank habitat;
- reduce light and vegetation;
- change velocity and sediment deposition;
- form a barrier to fish and invertebrate movement;
- trap debris;
- and reduce the continuity of the riparian corridor.

A temporary culvert may still affect a breeding season or leave compacted and altered banks after removal. The assumption that a structure is temporary does not determine that its ecological effect is insignificant.

Surface runoff is another important pathway. Solar fields, tracks, compounds, cable works and access roads may alter the distribution and velocity of runoff. Chapter 9 addresses whether the drainage strategy adequately predicts and controls those changes. Within Chapter 8, the relevant issue is the effect on downstream habitat and species.

Runoff from disturbed clay soils may carry fine sediment into ordinary ditches that subsequently discharge into Starston Brook or Broome Beck. Runoff from substations, compounds or construction areas may carry oils, fuels, concrete washout or other pollutants. Where several Scheme parcels drain into the same brook system, individually small releases may combine or occur repeatedly over the construction programme.

The Applicant has not provided a sufficiently integrated assessment showing:

- the catchment draining to each Waveney-linked watercourse;
- every Scheme parcel, access, compound and cable section within that catchment;

- the final location and method of each crossing;
- the direction and travel time of runoff;
- the location of sensitive downstream habitats;
- the interaction with groundwater;
- or the cumulative consequence of multiple works within the same system.

This absence is important because Broome Beck changes regulatory status shortly downstream of the Scheme. An impact originating beside an ordinary-watercourse reach may therefore be transmitted into a main river. The regulatory classification at the point of construction does not limit the downstream ecological zone of influence.

The field-ditch network also requires a seasonal assessment. The Applicant's surveys encountered many dry or partly dry features, but that does not mean those ditches are hydrologically disconnected. During wetter periods they may carry runoff rapidly into Starston Brook, Broome Beck and the wider Waveney system. They may also provide temporary habitat and dispersal pathways.

The proposed reliance on later construction planning is therefore insufficient. Before consent, the Applicant should identify all crossings and working areas within the Waveney-linked system and demonstrate, through a source–pathway–receptor assessment, that effects will not propagate beyond the immediate works.

At minimum, the assessment should distinguish:

- direct channel and bank effects;
- sediment and contaminant pathways;
- altered surface flow;
- groundwater interaction;
- barrier and fragmentation effects;
- effects upon fish, invertebrates and riparian species;
- and cumulative effects across all crossings within each connected catchment.

The present assessment does not provide that level of certainty.

8.8.3 Incomplete aquatic baseline

The reliability of the Applicant's conclusions depends upon the adequacy of the aquatic baseline. Appendix 8.9 is not a comprehensive aquatic-species survey. It is described as a proportionate, habitat-led appraisal. No direct macroinvertebrate sampling was undertaken, and the appraisal uses habitat characteristics, desk-study information and data from connected off-site or downstream monitoring locations to infer the likely ecological assemblages.

A habitat-led appraisal can be useful for identifying potential value and determining where more detailed work is required. It is less capable of supporting a confident no-significant-effect conclusion where:

- the catchments are complex and connected;
- protected or priority species are known downstream;
- crossing and compound locations remain flexible;
- direct biological sampling is absent;
- and the survey conditions under-represent normal hydrology.

The dry-condition limitation is not speculative. Appendix 8.9 expressly states that surveys were completed during unusually dry conditions and that many smaller drainage features were dry or partly dry. It accepts that the observed wetted extent, depth and in-channel habitat may under-represent typical conditions, particularly in ephemeral headwaters and field ditches. The surveys were undertaken in September and October 2025.

That timing matters because seasonal ditches and headwaters may perform their greatest hydrological and ecological role during winter, spring or periods of sustained rainfall. A feature that was dry in September may:

- carry substantial runoff in winter;
- connect otherwise isolated ponds and channels;
- provide temporary fish or amphibian habitat;
- transport macroinvertebrates;
- convey sediment and pollutants;
- or recharge wetland and riparian soils.

The dry survey therefore risks understating both habitat availability and impact pathways.

The limitation is especially significant because the Applicant's own methodology relies upon hydrological connectivity. Downstream Environment Agency fish and invertebrate data are used to infer what may occur within or close to the Order Limits. The Ecology Chapter recognises that Hempnall Beck could support diverse aquatic macroinvertebrate communities and that sensitive taxa are likely within flowing sections and principal tributaries.

That inference supports a precautionary conclusion that ecologically important assemblages may be present. It does not support a conclusion that the effect of the Scheme will be insignificant. To reach the latter conclusion, the Applicant must assess how impacts move through the same network.

There is presently an asymmetry in the assessment:

- downstream connectivity is used to infer ecological presence;
- but downstream connectivity is not modelled adequately when assessing impact propagation.

For example, downstream data may establish that eel, lamprey, salmonids or sensitive invertebrates are likely to use the connected system. The assessment does not then quantify how sediment released at an upstream cable crossing would travel, where it would deposit, how long elevated turbidity would persist or which downstream habitat could be affected.

Similarly, the existence of connected ditches is recognised when describing the aquatic network, but there is no wet-season survey or integrated model showing which ditches become active during rainfall and how they connect solar parcels, substations, roads and cable works to the main rivers.

No direct macroinvertebrate sampling means that the Applicant has not established the actual composition, abundance or seasonal use of the affected reaches. That matters because different assemblages have different sensitivities to:

- sediment deposition;
- altered flow;
- oxygen depletion;
- temperature change;
- pollution;
- channel shading;
- bank disturbance;
- and polarised light from solar panels.

A habitat appraisal may identify that a reach could support diverse invertebrates. It does not establish which taxa are present, whether breeding occurs there, or whether a particular season is critical.

The absence of direct sampling is particularly relevant to the Environment Agency's concern about the attraction of aquatic insects to panels. Without an adequate baseline, it is difficult to determine:

- which emerging aquatic insects occur;
- their source reaches;
- their normal dispersal direction;
- the distance over which they may respond to reflected polarised light;
- and whether panel arrays lie within that behavioural zone of influence.

The white-clawed crayfish evidence demonstrates the practical consequence of relying too heavily on desk-study radii and walkover signs. Appendix 8.9 stated that the environmental search had not returned records within the two-kilometre search area. The separate River Tas evidence submitted to the Examination records a professionally confirmed breeding population at Saxlingham Thorpe and argues that it lies within the relevant connected system and within two kilometres of affected parts of the Scheme.

Whether every detail of the local evidence is ultimately accepted is a matter for Examination. It is already sufficient to show that absence of a record from one data search is not equivalent to ecological absence. The Examining Authority has accordingly required the Applicant to explain further survey work or provide robust justification if additional survey is not undertaken.

The baseline is also incomplete in temporal terms. Fish and aquatic invertebrates use different reaches at different life stages and seasons. Salmonids may depend upon clean gravel for spawning, juveniles upon shallow marginal habitat and adults upon deeper cover. Eels migrate through connected systems. Aquatic insects emerge seasonally and may disperse from

watercourses into adjoining land. A one-off autumn habitat inspection cannot characterise all of those functions.

The Environment Agency's application-stage response also identifies errors and omissions in the Applicant's treatment of fish habitat. It notes that Appendix 8.9 refers to coarse fish, eel and lamprey but does not specifically describe salmonid habitat use, including spawning gravels, marginal cover and woody material. The Agency considers that salmonids should be identified expressly even where some of the relevant habitat features overlap with those used by other species.

A robust aquatic baseline should therefore include, proportionately to the final works:

- wet-season and appropriate seasonal habitat surveys;
- direct macroinvertebrate sampling at sensitive reaches;
- current fish data and, where necessary, targeted fish surveys;
- crayfish survey or eDNA work at relevant connected locations;
- mapping of permanent, intermittent and ephemeral connectivity;
- channel-form and riparian-condition surveys;
- baseline water-quality and sediment data;
- groundwater–surface-water conceptual models;
- and upstream and downstream monitoring locations at each major crossing.

The need for that evidence does not mean that every small ditch requires the same survey effort. It means that survey scope must be determined by ecological function and hydrological connectivity rather than by whether a feature happened to contain water during a dry autumn visit.

Until the baseline is completed, the Applicant cannot confidently determine receptor value, impact magnitude or mitigation effectiveness. Outline pollution controls cannot correct an under-valued receptor, and post-consent monitoring cannot retrospectively establish what ecological conditions existed before construction.

8.8.4 Environment Agency's unresolved ecology concerns

The Environment Agency's Relevant Representation is particularly important because it assesses the final application documents rather than the earlier PEIR alone. Its position is not that all aquatic-ecology matters have been resolved through Chapter 8, Appendix 8.9 and the outline management plans. It identifies continuing disagreement and further work concerning fish valuation, temporary effects, electromagnetic fields, aquatic invertebrates and the security of riparian enhancement.

European eel has been undervalued

The Applicant's Table 8.14 classifies freshwater fish as being of Local ecological importance. The Environment Agency expressly disagrees with that valuation because it fails to account for European eel.

The Agency identifies European eel as a critically endangered species and a priority species under section 41 of the Natural Environment and Rural Communities Act 2006. It states that retaining fish at Local value may lead to the significance of effects on protected fish being underestimated and requires freshwater fish to be categorised as being of County importance under the Applicant's own geographical scale.

Receptor value is one of the inputs used to determine effect significance. If the receptor is assigned too low a value, the same magnitude of effect produces a lower significance conclusion.

The error therefore affects the Applicant's assessment of:

- construction noise;
- sediment and pollution;
- temporary obstruction;
- bank disturbance;
- HDD effects;
- operational EMF;
- and cumulative effects across connected watercourses.

The Applicant should revise the receptor valuation and reassess every relevant effect using County importance. The existing conclusions cannot simply be retained unless the Applicant demonstrates that the corrected valuation makes no difference to the significance assessment.

The Environment Agency also disputes the Applicant's treatment of temporary effects. The Applicant's two-year definition may encompass two fish breeding cycles. The Agency requires effects lasting longer than six months to be assessed as permanent for fish and WFD purposes.

Taken together, these points indicate a systematic risk of under-assessment: the fish receptor is valued too low, while effects lasting long enough to affect multiple year classes are labelled temporary.

EMF and the 12-microtesla precautionary threshold

The Environment Agency expressly states that it does not agree with the conclusion at paragraph 8.9.481 of Chapter 8 that operational electromagnetic fields are not expected to cause ecologically significant effects on freshwater fish.

The Agency identifies a risk that residual magnetic fields from buried cables may affect European eel behaviour. It refers to evidence that anguillid species can detect magnetic fields as low as 12 microtesla and requires the Applicant to demonstrate that cable burial depth will reduce the magnetic field to below that level at the bed of the watercourse.

This requirement is especially material at the 400 kV cable crossing of Hempnall Beck. The Agency had raised the issue at scoping and required evidence that the cables would be buried sufficiently deeply for fields at the watercourse to remain below levels detectable by fish.

The application-stage representation records that the Applicant has indicated a field strength of approximately 95 microtesla at one metre above ground, while recognising that the field attenuates rapidly with distance. The Agency does not accept attenuation in principle as sufficient. It requires a calculated or modelled result at the ecological receptor: the bed of the watercourse.

The relevant assessment should therefore specify:

- the number, voltage and configuration of cables;
- conductor spacing and phasing;
- normal and maximum load;
- the depth below the watercourse bed;
- the thickness and magnetic characteristics of surrounding material;
- the predicted field at the bed and within the water column;
- the position of the maximum field relative to likely eel movement;
- and the effect of any cable-depth variation or scour during the operational lifetime.

A general statement that fields decline with distance does not demonstrate compliance with the precautionary threshold. Nor should the question be deferred entirely to detailed design, because the feasibility of achieving the necessary burial depth and field strength is part of the ecological acceptability of the crossing.

The Applicant must either demonstrate that the field at the watercourse bed will remain below 12 microtesla under the reasonable worst-case operating configuration or redesign the cable arrangement, burial depth or crossing location accordingly.

Aquatic-invertebrate attraction to solar panels

The Environment Agency also identifies a separate operational effect omitted from Chapter 8: the potential attraction of aquatic invertebrates to solar panels.

Certain aquatic insects use reflected polarised light as a cue for locating water. Solar panels may imitate aspects of that signal, causing insects to approach panels or attempt to lay eggs upon them. The result may be wasted reproductive effort and interruption of the aquatic-invertebrate life cycle.

The Agency raised this matter at scoping, noting that aquatic invertebrates had not been considered adequately and that Norfolk hawker records existed within the scoping area. It requested assessment and mitigation of polarised-light effects, including measures that break up reflected polarisation where necessary.

The final application has still not resolved the issue. In its Relevant Representation, the Agency states that the potential attraction of aquatic invertebrates to panels has not been addressed and identifies the impact as interruption of their life cycle.

This matters beyond the insects themselves. Aquatic invertebrates form part of the food resource for:

- fish;
- bats;
- birds;
- amphibians;
- and riparian predators.

A change in emergence, dispersal or reproductive success may therefore alter wider ecological function. The effect is especially relevant to Hempnall Beck because Appendix 8.9 identifies the Beck as capable of supporting a diverse aquatic-invertebrate community.

The Applicant should assess not simply the distance between the nearest panel and the watercourse, but the likely behavioural zone of influence. That requires consideration of:

- the aquatic-invertebrate assemblage;
- panel orientation and tracking;
- surface treatment and reflected polarisation;
- the extent and density of panel arrays;
- topography and visibility from the watercourse;
- intervening vegetation;
- seasonal emergence periods;
- and cumulative effects where arrays lie on more than one side of a connected riparian corridor.

The omission is directly relevant to the Applicant's reliance on retained riparian habitat and watercourse BNG. A watercourse may remain physically intact while its invertebrate community is affected by infrastructure beyond the nominal bank buffer.

Wider watercourse buffers are not secured

The Environment Agency acknowledges that the outline masterplan does not appear to place solar modules immediately beside the relevant watercourses. It nevertheless states that the wider distances shown on that plan are not secured. The Design Principles, Parameters and Commitments document appears to commit only to a 10-metre stand-off from watercourses.

The Agency requires wider buffers to be secured around watercourses capable of supporting diverse aquatic-invertebrate communities, including through both the OLEMP and the Design Principles document.

This distinction between indicative design and secured mitigation is important. An outline masterplan may show a wider gap, but unless the DCO and certified documents impose that gap, later detailed design may move panels or infrastructure closer while remaining within the Order Limits and parameters.

The appropriate buffer cannot be determined by applying one standard distance to every feature. It should reflect:

- ecological value;
- channel width and morphology;
- floodplain and riparian habitat;
- fish and invertebrate use;
- groundwater dependence;
- topography;
- the nature of adjoining development;
- lighting and reflected-polarisation effects;
- and the location of compounds, roads and drainage infrastructure.

A ten-metre stand-off may be a minimum control for certain construction activities. It is not evidence that solar panels beyond that distance cannot affect emerging invertebrates or that runoff, lighting and disturbance are adequately controlled.

The EA's water-quality comments reinforce the need for clear and consistent distances. It notes that some application documents merely require storage to be 'away from' watercourses, while others specify ten metres. It asks for consistent wording measured from the top of bank and for compounds and materials to be kept at least ten metres away, with greater separation where practicable in areas of high groundwater vulnerability.

Those minimum pollution controls should not be confused with an ecologically sufficient operational buffer. The latter may need to be materially wider where required to maintain riparian habitat, aquatic-insect life cycles, dark corridors and protected-species movement.

Riparian enhancement is not secured consistently

The Environment Agency identifies a material inconsistency between the Biodiversity Net Gain Report and the Outline Landscape and Ecology Management Plan.

Section 4.3 of the BNG Report apparently relies upon riparian enhancement and reduced encroachment. The OLEMP does not contain the corresponding commitments. The Agency warns that riparian management and enhancement opportunities may therefore be overlooked and identifies the management of Himalayan balsam, acknowledged to contribute to the poor condition of Hempnall Brook, as an example. It requires the riparian enhancements relied upon in the BNG Report to be secured in the OLEMP and requires explicit measures for checking and managing invasive species.

The inconsistency has several consequences.

First, it undermines the deliverability of the claimed watercourse BNG. The Applicant's BNG Report predicts a 16.08% gain in watercourse units, but the practical management document does not secure all of the riparian measures on which that calculation relies.

Secondly, it weakens the ecological mitigation case. If enhanced riparian habitat is relied upon to offset disturbance, improve connectivity or increase ecological resilience, the measures must be specified, funded, managed and monitored.

Thirdly, it creates uncertainty about invasive-species management. Himalayan balsam can dominate riverbanks and, following winter dieback, leave exposed soil vulnerable to erosion. Disturbance by construction machinery may also spread seed along the catchment. A general future commitment is not equivalent to a mapped and funded catchment-management programme.

The final LEMP should therefore identify:

- every riparian reach to be enhanced;
- the baseline habitat condition;
- the width and type of buffer;
- planting or natural-regeneration measures;
- invasive-species survey and treatment;
- bank and channel management;
- livestock and machinery exclusion;
- monitoring indicators;
- timescales;
- remedial triggers;
- and responsibility for delivery throughout the operational period.

The BNG metric should then be recalculated against measures that are actually secured. Unsecured or inconsistent commitments should not be credited.

The Environment Agency's overall position remains unresolved

The Agency's Relevant Representation summarises its ecology and fisheries concerns as requiring further consideration. These include:

- short-term and temporary effects on fish;
- the ecological status and valuation of European eel;
- EMF effects on eel;
- the effect of panels on macroinvertebrate life cycles;
- and the securing of BNG and riparian recommendations.

The Applicant therefore cannot state that the statutory regulator has accepted the Chapter 8 conclusions on aquatic ecology. The Agency does not agree with the EMF conclusion and considers the fish valuation and duration methodology inadequate. It also identifies an unassessed operational effect and a mismatch between the mitigation claimed in the BNG Report and that secured by the OLEMP.

These matters are not capable of being dismissed as minor drafting points. They affect:

- receptor valuation;
- impact magnitude and duration;
- the existence of an operational effect;
- the adequacy of cable design;

- the necessary width of ecological buffers;
- and the deliverability of mitigation and BNG.

BEPS submits that the Applicant has not demonstrated that the River Tas, Hempnall Beck, Starston Brook, Broome Beck and their tributary and ditch networks will retain their ecological function throughout the Scheme.

Before any conclusion of acceptability can be reached, the Applicant should be required to provide:

- a catchment-scale ecological assessment of the Tas and Waveney-linked systems;
- wet-season mapping of permanent, intermittent and ephemeral connectivity;
- direct aquatic-invertebrate sampling at sensitive reaches;
- updated fish and protected-species evidence;
- completion of the white-clawed crayfish work requested by the Examining Authority;
- a final schedule and method for every watercourse and ditch crossing;
- groundwater–surface-water conceptual models for sensitive crossings;
- sediment and pollutant-pathway assessment extending to downstream receptors;
- EMF modelling demonstrating less than 12 microtesla at the watercourse bed;
- assessment and mitigation of aquatic-invertebrate attraction to panels;
- site-specific and legally secured riparian buffers;
- and reconciliation of the BNG Report, OLEMP and DCO commitments.

Until those matters are resolved, the Applicant's conclusion of no significant adverse aquatic-ecology effect is not supported by a complete baseline or by agreement with the Environment Agency. The hydrologically connected ecology of the Scheme should therefore attract substantial adverse weight.

8.9 White-clawed crayfish

White-clawed crayfish are a distinct and potentially decisive ecological constraint for East Pye Solar. The issue cannot be absorbed into a general discussion of aquatic habitats because there is specific evidence of a breeding population within the River Tas catchment, a material conflict between that evidence and the Applicant's baseline, multiple credible pathways by which the Scheme could affect the population or connected habitat, and a protected-species and Water Framework Directive framework requiring precautionary assessment.

The Applicant's Aquatic Habitat Assessment states that its environmental data search returned no records of white-clawed crayfish within a two-kilometre search area. It also relies upon the absence of field signs during habitat walkovers when reaching its conclusions. However, the same assessment acknowledges that the absence of signs during a walkover does not establish absence, that white-clawed crayfish are legally protected and vulnerable to habitat modification and sedimentation, and that biosecurity, pollution prevention and sediment controls are required because of the wider River Tas catchment context. The Ecology Chapter separately records an Environment Agency record approximately six kilometres downstream and historical occurrence within the wider catchment.

More importantly, evidence submitted to the Examination records a professionally confirmed breeding population at Saxlingham Thorpe, within the River Tas chalk-stream system and stated to be within two kilometres of part of the Scheme. That evidence also states that the Applicant was given the relevant Norfolk Rivers Trust information in December 2025, before submission of the DCO application.

The evidential effect is not merely that another record should be added to a desk-study table. The existence of a breeding population materially changes the assessment of receptor value, likely presence, survey requirements, the geographical Zone of Influence and the adequacy of generic construction controls. It requires the downstream and hydrologically connected River Tas system to be treated as a known protected-species catchment, rather than as a landscape in which absence can be inferred from incomplete records and dry-condition walkovers.

8.9.1 Evidence of a breeding River Tas population

The River Tas white-clawed crayfish evidence submitted to the Examination provides a chronology of discovery, professional confirmation and repeat Norfolk Rivers Trust survey.

The chronology begins with the discovery of a dead white-clawed crayfish in the River Tas at Saxlingham Thorpe during summer 2020. The specimen was retained and supplied to the Environment Agency in October 2020. According to the submitted report, the Environment Agency confirmed the identification, referred to the rarity of the species and to historical records near Newton Flotman, and arranged for Norfolk Rivers Trust to undertake further survey work.

Norfolk Rivers Trust subsequently surveyed the Saxlingham Thorpe reach on 10 October 2020. The submitted evidence records that the survey found two juvenile white-clawed crayfish. Juveniles are important evidence because they demonstrate recent successful reproduction rather than the incidental presence of one ageing or displaced adult. The report consequently characterises the finding as confirmation of a healthy breeding population and states that the location was then one of only six known native-crayfish sites in Norfolk. The results were reported through the Norfolk Crayfish Group's summary of conservation work undertaken during 2020.

The population was not based upon a single survey or isolated specimen.

On 9 August 2021, Norfolk Rivers Trust worked with a Bristol University doctoral researcher to undertake hand-searching and environmental DNA work for native and non-native crayfish in several Norfolk rivers, including the River Tas at Saxlingham Thorpe. The submitted evidence records that three white-clawed crayfish were found and that photographic evidence is available.

Norfolk Rivers Trust surveyed the location again on 28 September 2022 and reconfirmed the species' presence. The evidence also records that Banham Zoo volunteers installed two short brash-bundle habitat-enhancement areas close to the known concentration. This intervention is consistent with the location being treated by those involved as an identified conservation site rather than an unverified anecdotal record.

The chronology therefore comprises:

- Environment Agency confirmation of a specimen in 2020;
- two juveniles found by Norfolk Rivers Trust in October 2020;
- three animals found during further Norfolk Rivers Trust and university-associated survey work in August 2021;
- reconfirmation by Norfolk Rivers Trust in September 2022;
- and subsequent habitat enhancement close to the recorded concentration.

That is materially stronger evidence than an uncorroborated public sighting. The presence of juveniles, combined with repeated findings over several survey seasons, supports the conclusion that Saxlingham Thorpe holds, or at the relevant survey dates held, a reproducing River Tas population.

The submitted report also records other notable aquatic species in the same reach or system, including river lamprey and brown trout. While those species are addressed separately, their presence reinforces the ecological quality and sensitivity of the receiving watercourse.

Proximity to East Pye Solar

The River Tas evidence submission places the Saxlingham Thorpe population within two kilometres of part of the East Pye Scheme and within the hydrologically connected River Tas system. Precise coordinates are stated to be available for the physical evidence, although they are appropriately withheld from the public version because of the sensitivity of the species record.

The exact distance from every individual Scheme component is not the decisive issue. A radial distance from a panel field or cable route is not an ecological Zone of Influence where watercourses are connected.

The relevant questions are:

- which Scheme parcels, access routes, compounds and cable works drain into the River Tas or its tributaries;
- whether the population lies upstream or downstream of individual works;
- whether affected ditches, field drains, culverts, becks or groundwater pathways connect the works to occupied or potentially occupied reaches;
- how sediment, contaminants, altered flows or disease could travel through that system;
- and whether construction activity could affect other, as yet unrecorded populations between the Scheme and the known Saxlingham Thorpe site.

The Applicant itself relies upon hydrological connectivity when using downstream Environment Agency information to infer likely aquatic assemblages in reaches closer to the Scheme. It cannot logically treat the same connectivity as irrelevant when a protected-species record demonstrates risk elsewhere in the connected catchment.

The evidence was supplied before the application

The timing is also material.

The River Tas evidence submission states that professionally confirmed information concerning the Saxlingham Thorpe population was provided to East Pye Solar Limited in December 2025. BEPS' full Relevant Representation likewise records that the Applicant was supplied pre-application with Norfolk Rivers Trust evidence identifying a repeatedly surveyed breeding population within two kilometres in the connected chalk-stream system.

The DCO application was subsequently submitted with an Aquatic Habitat Assessment stating that the environmental search had returned no records within two kilometres.

BEPS does not suggest that the Applicant was necessarily required to accept every item of locally submitted evidence without verification. The proper response to credible, specific and professionally attributable protected-species evidence was to investigate it. That should have included obtaining the relevant Norfolk Rivers Trust and Environment Agency records, confirming the location and survey methodology, consulting the Norfolk Crayfish Group or county records service, and undertaking properly licensed survey work within potentially affected reaches.

The evidence should not have been omitted while the application continued to rely upon a conclusion of no records within two kilometres.

Even if the Applicant disputed the precise distance or current status of the Saxlingham Thorpe population, the repeat survey evidence was sufficient to defeat an assumption of absence and to trigger a precautionary catchment-scale assessment.

Natural England's current standing advice confirms that a survey should be required where distribution or historical records suggest that white-clawed crayfish may be present. It expressly warns that absence of a record does not demonstrate absence because it may simply reflect a lack of survey data, and it identifies July to September as the appropriate survey period.

The Planning Inspectorate has treated the evidence gap as material

The Examining Authority's Rule 6 letter confirms that the matter remains unresolved.

The ExA records concerns raised by South Norfolk Council, Norfolk Wildlife Trust and BEPS. It quotes Appendix 8.9's admission that surveys were undertaken during unusually dry conditions, that many smaller drainage features were dry or only partly wet, and that observed habitat availability may under-represent normal conditions, particularly in ephemeral headwaters and field ditches. The ExA also records that the relevant site visits took place in September and October 2025.

Having regard to those limitations and the representations received, the ExA has required further information. It requested an update by Procedural Deadline A on any additional survey undertaken or proposed, or robust justification and further evidence where no further survey is undertaken. The request was made early to allow work during the July-to-September survey period and expressly directs the Applicant to Natural England's white-clawed crayfish standing advice.

The ExA's procedural decision does not determine that the Scheme will harm the population. It does establish that the application evidence is not presently sufficient for the ExA to complete its assessment without further information.

BEPS therefore submits that the breeding-population evidence must be treated as part of the environmental baseline unless and until competent, current and appropriately licensed evidence demonstrates otherwise.

8.9.2 Defective Applicant baseline

The principal baseline defect is the conflict between the Applicant's statement that no white-clawed crayfish records were returned within two kilometres and the specific River Tas evidence described above.

That conflict is compounded by four further deficiencies:

- the use of an arbitrary radial search distance in a connected catchment;
- reliance upon the absence of walkover signs;
- the absence of direct species survey;
- and the lack of a sufficient catchment-scale impact assessment.

The two-kilometre desk-study search is not the Zone of Influence

A two-kilometre data-search radius may be a useful starting point for obtaining records. It is not a lawful or ecological boundary beyond which effects can be disregarded.

The EIA must assess the likely significant effects of the Scheme throughout the area in which those effects may occur. For an aquatic species, that area is determined by:

- catchment boundaries;
- surface-water flow;
- groundwater movement;
- ditch and culvert connections;
- locations of crossings and discharge points;
- the mobility of sediment and contaminants;
- and the potential movement of animals, disease and invasive species.

The River Tas evidence submission correctly identifies the distinction between a conventional desktop search radius and the actual Zone of Influence. It states that, where construction land drains into a watercourse, the relevant area may extend along the downstream pathway, irrespective of whether the receiving receptor lies outside an arbitrary two-kilometre circle.

The defect is apparent even on the Applicant's own evidence. Chapter 8 records an Environment Agency white-clawed crayfish record approximately six kilometres downstream and historical presence in the wider River Tas catchment. It then accepts that biosecurity, pollution prevention and sediment control are needed to safeguard downstream habitat.

That means the Applicant itself recognises both a protected-species record beyond two kilometres and a pathway by which effects could extend beyond the immediate works. The two-kilometre record search cannot therefore define the ecological assessment boundary.

Absence of walkover signs does not establish absence

The Applicant's field work did not comprise a direct white-clawed crayfish survey. The Aquatic Habitat Assessment was a habitat-led appraisal. No licensed hand search, hand-netting, refuge search, night search, trapping programme or targeted eDNA survey was undertaken to establish presence or absence at the potentially affected reaches.

The assessment nevertheless refers to the absence of field signs.

That evidence carries little weight in determining actual absence. White-clawed crayfish can remain concealed beneath stones, roots, undercut banks, woody debris and other submerged refuges. Their detectability varies with water depth, clarity, flow, season, survey method and population density. Absence of obvious remains, burrows or animals during a general aquatic walkover is not equivalent to a competent species survey.

The Applicant itself accepts that absence of signs during a walkover does not confirm absence. Natural England's standing advice makes the same point more generally: absence of a record may simply indicate absence of survey data. It identifies direct survey methods including hand searching, hand-netting, night searching, licensed refuge trapping and eDNA.

The Applicant's conclusion therefore relies upon a form of evidence that its own appendix acknowledges cannot establish the proposition for which it is being used.

Surveys were undertaken in unusually dry conditions

The baseline was further compromised by hydrological conditions.

Appendix 8.9 accepts that its inspections took place during unusually dry conditions, with many smaller drainage features dry or only partly wet. It states that observed wetted extent, depth and in-channel habitat availability may under-represent typical conditions, especially in ephemeral headwaters and field ditches. The Rule 6 letter records those admissions and the September–October 2025 survey dates.

Those limitations are directly relevant to crayfish assessment.

A dry ditch may not provide permanent occupied habitat, but during wetter periods it may:

- connect occupied and potentially occupied reaches;
- convey sediment and pollutants;
- provide seasonal refuge or dispersal habitat;
- connect ponds, tributaries and the main river;
- or form part of the pathway by which disease or invasive organisms are transported.

The problem is therefore not limited to whether crayfish were visible in a dry feature. The dry conditions obscured the hydrological connections needed to determine the extent of the Scheme's impact pathways.

An assessment undertaken in dry conditions should have been supplemented by wet-season connectivity work before conclusions were reached. The Applicant has instead relied on acknowledged under-representation of the watercourse network while characterising residual effects as negligible or non-significant.

The Scoping Opinion had already required attention to the species

The omission is particularly serious because the Applicant was put on express notice at scoping.

The Environment Agency's scoping response stated that its records showed white-clawed crayfish on the River Tas and that the species had not been considered in the Scoping Report. It identified a risk of harm to a protected species and requested a commitment to survey at relevant locations once the watercourse works were known.

The Environment Agency also disagreed with scoping out the water environment and associated receptors, including white-clawed crayfish. It identified the River Tas as a chalk-stream priority habitat and required the effects of watercourse and haul-road crossings to be assessed.

By the time of the DCO application, the Applicant knew that the Scheme would require multiple cable and access interactions with watercourses and that HDD would be the default technique for many cable crossings. The works were therefore sufficiently developed to identify locations requiring species survey or, at minimum, to define precautionary survey zones.

The application does not contain the direct survey commitment sought by the Environment Agency translated into completed survey evidence.

The baseline omits known or readily obtainable evidence

The River Tas submission identifies several sources that, on its account, contradicted the no-record conclusion:

- the Environment Agency's confirmation of the 2020 specimen;
- Norfolk Rivers Trust surveys from 2020, 2021 and 2022;
- the Norfolk Crayfish Group's 2020 conservation summary;
- Norfolk Rivers Internal Drainage Board material;
- local information supplied to the Applicant;
- and the Planning Inspectorate's Scoping Opinion recording Environment Agency knowledge of the species on the River Tas.

The point does not depend on every one of those sources being independently conclusive. Collectively they provided more than sufficient reason to investigate.

A competent baseline should reconcile conflicting information. It should not state only that one search returned no records while omitting credible evidence supplied through consultation and other recognised sources.

No sufficient catchment-scale assessment

The Applicant has also failed to translate the known River Tas context into a catchment-scale impact assessment.

The Aquatic Habitat Assessment recognises hydrological connectivity when inferring likely fish and invertebrate assemblages. It identifies sediment release, turbidity, accidental pollution, changes to drainage and flow, and bank or barrier effects as relevant construction pathways. However, it does not model or map how those effects would move through the connected Tas system.

The assessment does not provide:

- a definitive map of all land draining towards occupied or potentially occupied reaches;
- a wet-season map of active ditch and tributary connections;
- the final location and method of every cable and access crossing;
- identification of every HDD launch and reception area;
- pollutant and sediment travel pathways;
- groundwater–surface-water interaction at sensitive crossings;
- the likely deposition points for mobilised sediment;
- or cumulative assessment of multiple works affecting the same connected system.

The River Tas evidence submission identifies the same deficiencies, including the absence of definitive species surveys, pollutant-pathway modelling, population data, cumulative assessment and species-specific mitigation.

The baseline defect therefore extends beyond a missing dot on a records map. It affects the identification of the receptor, the geographical scope of assessment, the magnitude of effects and the design of mitigation.

The Applicant's present conclusion is premature

Natural England's standing advice says that survey should be sought where historical or distribution evidence suggests presence and that the developer should submit information with the application explaining how harm will be avoided or mitigated.

Here, the evidence indicates:

- a repeatedly surveyed breeding population;
- an Environment Agency record elsewhere in the connected River Tas system;
- a statutory scoping request for survey commitment;
- an application baseline developed under unusually dry conditions;
- no direct species survey;

- and an ExA request for further information.

In those circumstances, a conclusion of negligible or non-significant effect cannot safely be maintained until the evidence has been corrected and the assessment repeated.

8.9.3 Risk pathways

White-clawed crayfish are vulnerable not only to direct excavation of occupied habitat but to changes transmitted through the water environment. The absence of works at the precise Saxlingham Thorpe survey location does not remove risk where Scheme activities occur within the connected catchment.

Natural England identifies the principal development threats as introduction of non-native crayfish, spread of disease through poor biosecurity, habitat loss or modification, obstruction of movement, and reductions in water quality or quantity through altered flow, increased siltation, reduced oxygenation or pollution.

Each of those pathways is relevant to East Pye Solar.

Sedimentation

Construction of a dispersed solar NSIP requires extensive soil disturbance. Relevant activities include:

- cable trenching;
- HDD compounds and pit excavation;
- new and upgraded access tracks;
- highway and visibility works;
- temporary haul roads;
- piling and foundation works;
- drainage construction;
- stockpiling;
- vegetation clearance;
- and repeated HGV movement.

Fine sediment can be mobilised from disturbed ground and transported through field drains, ditches, tributaries and groundwater-fed channels into the River Tas system.

For crayfish, the relevant effect is not simply temporary visual turbidity. Deposited fine sediment may:

- fill spaces beneath cobbles and woody material used as refuge;
- reduce habitat complexity;
- alter the bed substrate;
- affect prey communities;
- increase oxygen demand;

- and compound existing water-quality stress.

Natural England's standing advice expressly identifies increased siltation and decreased oxygenation as threats and recommends reducing the amount of sediment released as a core mitigation measure.

The Applicant's own aquatic assessment recognises sediment release and increased turbidity as construction risks. The relevant question is therefore not whether the pathway exists, but whether it has been quantified and controlled for every part of the connected catchment.

Generic statements that good-practice silt controls will be used do not establish:

- the sediment yield from each works area;
- the performance of controls during intense rainfall;
- the consequence of simultaneous works;
- the route taken through seasonal ditches;
- or the sensitivity of occupied and potential crayfish habitat downstream.

Chemical pollution

Potential chemical pathways include:

- fuel and hydraulic-fluid spills;
- oils and lubricants;
- concrete or cementitious washout;
- contaminated soil;
- cleaning chemicals;
- drainage from compounds;
- drilling fluids;
- firewater or contaminated runoff from electrical infrastructure;
- and accidental damage to existing utilities or drainage systems.

The River Tas evidence submission records existing pressures upon the population, including diffuse agricultural pollution, persistent chemicals, water-industry discharges and low dissolved oxygen. It characterises the Saxlingham Thorpe population as small or isolated and therefore vulnerable to additional stress.

A population already exposed to poor water quality may have reduced resilience. The consequence of an additional pollution event must therefore be assessed against the existing condition of the waterbody, not against a hypothetical pristine baseline.

The Scheme's scale increases the importance of prevention. Numerous work fronts, vehicles, compounds and crossings create repeated opportunities for failure. Even where the probability of an incident at one location is low, the cumulative probability across the whole construction programme may be materially greater.

The Applicant has not produced a white-clawed crayfish-specific incident model or emergency plan explaining how a pollution event entering the Tas system would be detected, contained and remediated before reaching occupied habitat.

Crayfish plague, signal crayfish and biosecurity

Disease is one of the most serious pathways because its effects may be rapid and irreversible.

The River Tas evidence records Environment Agency information that signal crayfish are established within the wider Yare catchment and have been identified around the River Tas–River Yare junction. It also records more recent reports of signal crayfish elsewhere within the wider system.

The presence of signal crayfish in the wider catchment makes strict biosecurity essential. Machinery, boots, nets, pumps, hoses, vehicles and other equipment moving between watercourses may carry water, mud, animals or disease organisms.

Natural England's standing advice expressly identifies spread of disease through poor biosecurity as a development threat and requires use of the Check, Clean, Dry protocol. It also identifies the introduction of non-native crayfish through new hydrological connections as a risk.

The Applicant's management documents must therefore do more than contain a generic invasive-species clause. A crayfish-specific biosecurity plan should identify:

- every watercourse at which personnel, machinery or equipment may enter;
- the sequence in which catchments and reaches will be worked;
- designated cleaning and disinfection areas;
- the treatment and disposal of wash water;
- drying periods;
- restrictions on movement of pumps, hoses and plant between watercourses;
- staff training;
- ecological supervision;
- procedures following suspected signal-crayfish discovery;
- and immediate stop-work and notification requirements.

Particular care is required where equipment is brought from outside the Scheme or used by contractors on other river projects.

The risk is not resolved by saying that no crayfish were observed during the Applicant's walkover. The biosecurity requirement arises from known presence within the connected catchment and from the potentially catastrophic consequence of disease introduction.

Altered flows and hydrological conditions

White-clawed crayfish require water of sufficient quality, quantity and oxygenation, together with stable submerged refuges. Changes to flow may affect water depth, velocity, wetted habitat, oxygen levels, temperature, substrate stability and the availability of refuges.

Scheme activities capable of altering those conditions include:

- soil compaction;
- panel and track drainage;
- cable trenches acting as preferential pathways;
- temporary dewatering;
- interception of shallow groundwater;
- new culverts or crossings;
- drainage outfalls;
- changes to field drains;
- and altered infiltration around substations and compounds.

Natural England identifies changes to water flow, water quantity, siltation and oxygenation as development threats to white-clawed crayfish.

The Environment Agency had already objected at scoping to the Applicant's incomplete understanding of groundwater–surface-water connectivity. It required hydrogeological risk assessment for HDD and other deep works potentially affecting shallow groundwater.

A hydrological change does not have to dry the whole river to be ecologically significant. Localised reduction in water depth may expose refuges, reduce connectivity or increase temperature and oxygen stress. Increased peak runoff may mobilise sediment, destabilise substrate or displace animals. Changes may also occur seasonally and therefore be missed by annual-average modelling.

The assessment must address these biological consequences rather than treating flow solely as a flood-risk or drainage-design issue.

HDD and cable crossings

The Applicant proposes trenchless methods, principally HDD, as the default for many main-river and ordinary-watercourse cable crossings, while retaining the possibility that other techniques may be used for some ordinary watercourses and ditches.

HDD may avoid open excavation of a riverbed, but it is not ecologically risk-free.

Relevant risks include:

- release of drilling fluid through a frac-out or inadvertent return;
- excavation and drainage effects at launch and reception pits;

- interception of groundwater;
- vibration;
- contamination from plant or stored materials;
- sediment runoff from compounds;
- and creation of preferential subsurface pathways.

The submitted River Tas evidence specifically identifies potential bentonite use and the hydrological connection between solar fields, substations, ditches, drains, culverts, streams and groundwater runoff.

Where the crossing passes beneath or near chalk-stream habitat, the hydrogeology requires particular care. Fissured and permeable chalk can provide pathways different from those assumed in a simple surface-drainage model. An inadvertent drilling-fluid return may emerge at the channel, in the hyporheic zone, through a spring or at another point away from the bore alignment.

The assessment should therefore specify for every Tas-connected HDD:

- final entry and exit locations;
- bore depth and profile;
- geology and groundwater level;
- estimated fracture risk;
- drilling-fluid type and volume;
- monitoring pressures;
- surface and subsurface monitoring points;
- containment equipment;
- emergency shutdown criteria;
- access for response;
- and measures for removing material without causing further habitat damage.

A generic frac-out plan does not demonstrate that a particular crossing is acceptable where the species baseline and subsurface pathway remain uncertain.

Open-cut crossings of smaller ditches may create still greater direct risks through bed disturbance, sediment release, flow interruption and movement of contaminated equipment. The Applicant should not assume that an ordinary or seasonally dry ditch is ecologically insignificant where it connects to the River Tas during wetter conditions.

Construction access and culverts

Construction access may affect crayfish habitat even where no electrical cable crosses the watercourse.

Temporary and permanent access works may require:

- culverts;
- temporary bridges;

- bank grading;
- bed protection;
- vegetation removal;
- drainage installation;
- and repeated HGV passage.

Natural England identifies obstruction of movement, including through new culverts, as a threat to white-clawed crayfish. Culverts may also alter light, substrate, velocity and sediment deposition and can create barriers or unsuitable uniform habitat.

Heavy vehicles increase the risks of bank collapse, compaction, fuel spills and sediment mobilisation. Access construction may also bring equipment into direct contact with wet channels, increasing disease-transfer risk.

All Tas-connected access crossings should therefore be fixed and assessed before consent. Clear-span structures should be preferred where a crossing cannot be avoided, with supports and working areas outside the channel and riparian protection zone.

Groundwater and chalk-fissure pathways

The Applicant's early water-environment evidence did not adequately characterise groundwater–surface-water relationships. The Environment Agency expressly identified failures to recognise evidence of connectivity and required hydrogeological risk assessment for HDD and deep foundation works.

This matters because the River Tas is a groundwater-influenced chalk-stream system. Effects may reach aquatic habitat through:

- direct surface runoff;
- shallow groundwater;
- springs and seepages;
- fissures in chalk;
- permeable superficial deposits;
- and cable trenches intersecting or redirecting subsurface flow.

The conventional assumption that soil, a nominal buffer or distance from the bank will contain a pollutant may be unsafe where subsurface pathways exist.

A robust assessment should provide a catchment conceptual model linking:

- the chalk and superficial geology;
- groundwater bodies;
- springs and seepages;
- field drains and ditches;
- the River Tas and Hempnall Beck;
- the Saxlingham Thorpe population;

- and every relevant cable, substation, compound and access location.

Without that model, the Applicant cannot demonstrate that sediment, pollution, altered flow or drilling fluid will remain outside occupied or potentially occupied crayfish habitat.

8.9.4 Legal and policy consequences

The white-clawed crayfish issue engages several overlapping legal and policy duties. Those duties must be stated accurately.

Protected-species status

White-clawed crayfish are protected under the Wildlife and Countryside Act 1981. Natural England's current standing advice states that intentional taking is an offence and that intentional or reckless possession, transport and sale-related activities are also prohibited. The species' present Schedule 5 protection is therefore not identical to the full killing, injury and habitat protections applying to some other Schedule 5 species. It nevertheless remains a legally protected species, and activities affecting animals or requiring their capture or relocation may require a Natural England licence and Environment Agency permission.

That distinction does not reduce the planning importance of the population.

Natural England advises that developers should submit information with the application showing how harm will be avoided or mitigated. It states that a survey should be requested where historical or distribution evidence suggests presence and that the absence of a record does not establish absence.

Where works may affect white-clawed crayfish, the decision-maker must therefore have enough information to determine:

- whether the species is present;
- which works may affect it;
- whether avoidance is possible;
- what mitigation or compensation is required;
- whether capture or relocation may be necessary;
- and whether there is a realistic and lawful licensing route.

Natural England's guidance states that it will confirm whether a white-clawed crayfish licence is needed for an NSIP. It also requires a mitigation plan where a licence is necessary.

The Applicant cannot defer the basic presence, impact and avoidance questions to a later licence application. A licence is not a substitute for an adequate EIA or for designing the Scheme to avoid the protected population.

Species of principal importance

White-clawed crayfish are also included on the list of species of principal importance in England under section 41 of the Natural Environment and Rural Communities Act 2006. Natural England's standing advice states expressly that their conservation must be considered as part of the planning decision.

The section 41 list exists to identify priority species of conservation concern and to inform public bodies' biodiversity responsibilities.

This means the planning assessment is not confined to avoiding the specific criminal offences created by the Wildlife and Countryside Act. It must consider the conservation of the population and the ecological network supporting it.

For East Pye, that requires attention to:

- population viability;
- breeding success;
- maintenance of occupied and potential habitat;
- water quality and flow;
- catchment connectivity;
- disease exclusion;
- recovery opportunities;
- and avoidance of further fragmentation or decline.

A conclusion that no individual will intentionally be taken does not answer those broader conservation obligations.

Water Framework Directive no-deterioration obligations

The River Tas system is also subject to the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

The environmental objectives include preventing deterioration of the status of surface-water bodies. The Planning Inspectorate's current NSIP advice explains that the WFD protects surface water and groundwater, requires the Secretary of State to consider implications for WFD objectives and requires the ExA to ensure that sufficient information is available for that decision.

The WFD assessment must be comprehensive and identify waterbodies directly or indirectly affected, their baseline characteristics, the methods used to quantify impacts, the risk of deterioration, and the mitigation required and how it will be secured.

White-clawed crayfish are not necessarily a separate formal classification element in every River Tas WFD assessment. However, the pathways capable of affecting the population are directly relevant to WFD quality elements, including:

- aquatic invertebrate communities;

- fish;
- physicochemical conditions;
- specific pollutants;
- hydromorphology;
- flow;
- and habitat continuity.

The loss or deterioration of crayfish habitat could therefore coincide with, evidence or result from deterioration in one or more WFD elements.

Planning Inspectorate guidance states that deterioration occurs where the status of at least one quality element falls by one class, even if the waterbody's overall classification does not change. Where an element is already in the lowest class, any further deterioration is treated as deterioration. A project risking deterioration cannot be authorised unless the applicable derogation requirements are met.

The Applicant must therefore demonstrate, on a comprehensive evidence base, that:

- sedimentation will not worsen biological or hydromorphological elements;
- pollution will not worsen chemical or physicochemical status;
- flow alteration will not degrade habitat or ecological function;
- crossings will not create barriers or morphological deterioration;
- and cumulative Scheme effects will not prevent achievement of the waterbody's objectives.

The existence of a breeding priority-species population materially increases the need for that assessment to be precautionary and receptor-specific.

Precautionary assessment

The precautionary requirement arises from the combination of credible presence evidence, potentially severe consequences and incomplete baseline information.

Natural England's standing advice does not permit absence to be inferred merely because a data search returned no record. It requires survey where distribution or historical information suggests presence.

The evidence before the Examination includes:

- Environment Agency knowledge of white-clawed crayfish on the River Tas recorded at scoping;
- a submitted chronology of repeat Norfolk Rivers Trust surveys;
- juvenile evidence indicating breeding;
- an Applicant-acknowledged downstream record and wider catchment history;
- unusually dry survey conditions;
- no direct Applicant species survey;
- and an ExA request for further information and survey proposals.

That is not an evidential position in which absence can safely be assumed.

The Applicant must assess a reasonable worst case until adequate survey demonstrates the distribution and status of the species. The reasonable worst case is not that crayfish occur in every ditch within the Order Limits. It is that occupied or functionally important habitat may occur within the hydrologically connected Tas system and that Scheme effects may reach it through surface-water or groundwater pathways.

Avoidance must precede mitigation

Natural England's advice identifies avoidance as the first response. It states that development should, where possible, be redesigned to avoid work in or near the relevant waterbody. Only where avoidance is not possible should mitigation or, as a last resort, compensation be considered.

For East Pye, avoidance should include:

- rerouting cables away from occupied and potential crayfish reaches;
- avoiding haul-road and construction-access crossings of the River Tas and its connected tributaries;
- excluding open-cut working from hydrologically connected channels;
- keeping HDD pits, compounds and storage areas outside species-specific riparian and hydrogeological protection zones;
- avoiding new culverts;
- retaining natural banks, beds and riparian vegetation;
- and avoiding works where chalk-fissure or groundwater pathways create an unacceptable frac-out or pollution risk.

Mitigation cannot be relied upon before the Applicant demonstrates that the relevant works are genuinely unavoidable.

Nor can translocation be treated as a routine solution. Natural England describes movement of crayfish as a last-resort compensation measure and emphasises the need to minimise disease spread. Moving animals may itself require capture, handling, licensing and identification of a suitable disease-free receptor site.

Irreversible harm

The Saxlingham Thorpe evidence describes a small and isolated breeding population within a catchment where signal crayfish and other existing pressures are already present.

That context increases the potential severity of harm. A major pollution incident, persistent sediment deposition or disease introduction could cause population collapse that would not be repaired by later habitat planting or biodiversity-unit delivery. Monitoring after construction would record the loss; it would not reverse it.

The mitigation hierarchy must therefore be applied before works are authorised, with a strong presumption against activities capable of introducing disease, drilling fluid, significant sediment or uncontrolled hydrological change into the connected catchment.

Required outcome

BEPS submits that the current Environmental Statement does not provide a sufficient evidential basis for concluding that effects upon white-clawed crayfish will be negligible or non-significant.

Before the Examination can reach a lawful and reliable conclusion, the Applicant should be required to provide:

- verification and full incorporation of the Norfolk Rivers Trust and Environment Agency evidence;
- direct, appropriately licensed survey between July and September at all potentially affected and hydrologically connected reaches;
- targeted eDNA and physical survey using competent white-clawed crayfish ecologists;
- wet-season mapping of ditch, tributary and groundwater connectivity;
- a catchment-scale distribution and impact assessment;
- a definitive plan of every cable, HDD, access, culvert and drainage interaction within the River Tas system;
- a hydrogeological risk assessment for every relevant HDD and deep excavation;
- sediment and pollutant-pathway modelling extending to occupied and potential habitat;
- a white-clawed crayfish-specific biosecurity plan;
- a drilling-fluid breakout and emergency pollution plan;
- WFD assessment of the corrected baseline and all relevant biological, chemical and hydromorphological elements;
- and fixed avoidance, buffer, monitoring and stop-work measures secured through the DCO and final management plans.

Where survey confirms occupied or functionally connected habitat, works capable of causing material sedimentation, pollution, disease transfer, obstruction or hydrological alteration should be removed or rerouted unless the Applicant demonstrates, on species-specific evidence, that harm can be avoided.

The ExA has already recognised that further evidence is required. Until that evidence is supplied, assessed and incorporated into a revised ecological and WFD assessment, the white-clawed crayfish issue remains unresolved.

BEPS therefore submits that the present baseline is materially defective and that the Scheme has not demonstrated compliance with protected-species requirements, the conservation duties associated with a section 41 priority species, the ecological mitigation hierarchy or the WFD no-deterioration objective. Development consent should not authorise works within the River Tas catchment that may cause irreversible harm while the distribution, pathways and mitigation remain uncertain.

8.10 Botany, lowland meadow, roadside verges and field margins

The botanical effects of East Pye Solar require assessment as a distinct ecological impact rather than merely as a deficiency in the Applicant's baseline. The Scheme would not affect only the interiors of intensively cultivated fields. Its access works, visibility splays, haul routes, cable corridors, compounds and construction movements would be concentrated along roadside verges, hedgerow banks, ditch edges, grassland strips and field margins. Those are the parts of an agricultural landscape most likely to have escaped repeated cultivation and chemical improvement and, consequently, the places most capable of retaining locally important plant assemblages.

The Applicant's own habitat evidence demonstrates that these habitats are widespread. Its surveys record species-rich native hedgerows, other neutral grassland, modified grassland margins, wet and dry ditches, ponds, scrub, floodplain grazing marsh, lowland fen and arable margins across the Scheme. Some margins are several metres wide and are expressly described as floristically diverse. The application mapping also identifies lowland meadow, arable field margin and other grassland priority habitats within and around the Order Limits.

That evidence is important, but it is not a substitute for a proper botanical survey. The Applicant's extended habitat survey expressly disclaims being a full botanical survey. Records of dominant or notable plants were incidental to broad UK Habitat Classification mapping, and the survey also disclaims providing complete mapping of invasive plants or a definitive protected-species baseline. BEPS' evidence from a botanist described as holding Level 6 botanical expertise identifies the need for a full-season survey because important and potentially rare plant assemblages may occur in the very verges, field margins, ditch edges and semi-natural strips threatened by the development.

Norfolk Wildlife Trust reaches substantially the same conclusion. Its Relevant Representation describes the East Pye landscape as containing miles of species-rich hedgerows, semi-natural road verges, Roadside Nature Reserves and rare threatened flora dispersed through a landscape that is 'dense with nature'. It states that the application lacks a comprehensive assessment of roadside verge impacts and strongly recommends botanical surveys in all areas potentially affected by transport, haul roads and road widening.

The Applicant therefore cannot treat botanical effects as minor simply because most of the Scheme is mapped broadly as arable land or modified grassland. The ecological value in this landscape is concentrated disproportionately within its edges, boundaries, surviving meadow fragments and less intensively managed linear habitats. Those features are also the locations through which much of the Scheme's engineering and construction activity is proposed.

8.10.1 Rare and locally important plant assemblages

BEPS relies upon evidence from a Level 6 botanist that the East Pye area has the potential to support important and potentially rare botanical assemblages, particularly within field margins, roadside verges, ditch edges and other semi-natural strips. The expert recommendation is for a proper full-season botanical survey rather than reliance on incidental plant recording undertaken while assigning broad UKHab categories. That distinction is fundamental.

A habitat may be classified as modified grassland, other neutral grassland or an arable margin without the survey having established its complete floristic composition. Broad habitat classification is useful for mapping land cover and calculating habitat units, but it does not necessarily identify:

- plants visible only during a limited flowering period;
- species whose identification depends upon flowers, fruits or mature vegetative features;
- annual arable plants whose appearance varies according to cultivation;
- small populations occurring in hedge bottoms, banks or disturbed ground;
- assemblages whose importance derives from the combination of species present rather than the rarity of one plant;
- or species surviving in a narrow strip that may not influence the classification assigned to the wider habitat polygon.

The Applicant's own disclaimer is therefore material. If the survey was not designed to be a full botanical inventory, the absence of a recorded rare plant cannot properly be treated as evidence that no rare or locally important assemblage is present.

The potential importance of these habitats is reinforced by the ecological and historical character of the Norfolk Claylands. Norfolk Wildlife Trust's Restoring the Claylands, written by Professor Tom Williamson of the University of East Anglia, describes an historically intricate landscape of small fields, pasture, hedges, trees, commons, greens and wide roadside corridors. It explains that many of the landscape's roads, woods and field boundaries have medieval origins; that small fields were commonly enclosed by hedges planted on banks accompanied by ditches and trees; and that historic land use created not only varied habitats but extensive connections between them.

The same evidence describes the severe simplification of that landscape during the twentieth century. Hedges were removed, fields amalgamated, pastures and meadows ploughed, ponds lost and mature trees reduced. Permanent grassland was also lost through post-war agricultural intensification. The surviving grassland strips, pockets, field margins and roadside habitats are therefore remnants of a much more extensive ecological network rather than interchangeable pieces of low-value vegetation. Norfolk Wildlife Trust explains that even narrow grassland strips can be valuable and that connecting existing grasslands by unploughed field margins significantly multiplies their ecological benefit.

This historical context matters to the evaluation of significance. A narrow verge or meadow fragment may appear small when assessed in isolation, but its scarcity is partly the product of extensive historic loss. Remaining examples can hold plant communities, seed banks and ecological relationships that have disappeared from the surrounding cultivated land. Their importance cannot be assessed simply by measuring their area.

Norfolk Wildlife Trust's consultation evidence similarly identifies the Claylands as a focus for the conservation and reconnection of hedges, woods, meadows and ponds, including a 'suite of localised meadow flora'. Its objective is to restore connectivity between those features rather than treat them as isolated habitat parcels.

The Applicant's own survey descriptions support the conclusion that potentially valuable edge habitats are widespread:

- Sub-Site 1A is bounded by two-to-three-metre grassland margins, species-rich native hedgerows with trees, veteran-feature oaks, a ditch and a pond.
- Sub-Site 3A contains three-to-four-metre margins expressly described as floristically diverse other neutral grassland, together with a pond and scrub.
- Sub-Site 5A is surrounded by margins of up to four metres and mostly continuous unmanaged species-rich native hedgerows, associated ditches, a wet ditch, pond and woodland.
- Sub-Site 5B has grassland margins, species-rich hedgerows and ditches.
- Site 6 has field margins ranging up to five metres, with species-rich native hedgerows.
- Site 7 includes other neutral grassland margins, floodplain grazing marsh, lowland fen and reedbed habitat associated with Fritton Grange Meadows.
- Site 10 includes tussocky grass margins, temporary grass and clover leys, neutral grassland, hedgerows and ditches.

Other application mapping records arable margins sown with wildflowers or pollen and nectar mixes. Such features are not ecologically equivalent to the cropped field interiors surrounding them. They may have been deliberately established or retained to provide flowering resources, cover and ecological connectivity.

The Applicant also identifies arable field margins as priority habitat present within the Scheme. Its own desk study records Roadside Nature Reserves as designated road verges with notable botanical diversity. These admissions are inconsistent with any general assumption that the verges and margins affected by engineering works are of negligible value.

The correct survey question is not merely whether a broad habitat category has been mapped. It is whether the species composition, condition, seasonal variation and ecological relationships of each potentially affected verge, margin, meadow, ditch bank and hedgerow bank have been established with sufficient confidence to inform avoidance.

That work should have included appropriately timed botanical surveys across the growing season, with repeat visits where required; species lists and abundance information; identification of locally or nationally notable species and assemblages; condition assessment of lowland meadow and other grassland priority habitat; identification of important seed-bank areas; and integration with hedgerow, ditch and invertebrate evidence. Surveys should have covered not only land beneath the proposed arrays but the complete construction footprint, including every access, visibility splay, passing place, highway intervention, cable working width, HDD compound, haul road and storage area.

Until that work is undertaken, the Applicant cannot reliably distinguish between vegetation that is genuinely of limited botanical value and habitat which has been undervalued because it was visited at the wrong season, assessed only to broad habitat level or excluded from the principal survey area.

8.10.2 Road widening and highway works

The botanical risk is particularly acute along the construction and abnormal-load routes.

South Norfolk Council's targeted-consultation response records that additional land was added to the Scheme for highway visibility splays and to accommodate abnormal indivisible loads, with potential highway works, removal of street furniture and vegetation removal. The targeted-consultation material also identified boundary enlargements and vegetation removal at Fairstead Lane and the A140, further vegetation removal associated with an internal access between Sites 7B and 7C, and comparable interventions at Broaden Lane, Church Hill and other junctions.

The final extent of intervention remains important because the Applicant's transport documents retain flexibility for passing places, visibility improvements, local highway alterations and temporary management along constrained rural roads. The CTMP also identifies Parker's Lane and numerous other rural roads as potentially subject to closures or restrictions while acknowledging that the precise affected sections and distances remain subject to detailed design.

That degree of flexibility prevents a reliable botanical assessment unless the maximum potential footprint of the highway works has itself been surveyed.

Verge stripping

Verge stripping would remove not only visible vegetation but also the upper soil horizons and seed bank upon which recovery depends. Where a species-rich verge has developed over decades, removing the turf and soil can eliminate both established plants and dormant propagules. Reinstatement using generic topsoil or a standard seed mix would not recreate the previous assemblage.

The effect can be permanent even if the engineering work is described as temporary. A verge reconstructed with compacted subsoil, imported material or nutrient-rich topsoil may support coarse grasses, ruderal vegetation or invasive plants rather than the original community. Changes in soil depth and chemistry may make restoration of the former flora impossible within the construction period or even the operational life of the Scheme.

Visibility splays

Visibility splays can require more than a single episode of cutting. They may create a continuing requirement to suppress regrowth for the operational use of an access. Their impacts may include removal or repeated reduction of verge vegetation, hedgerows, scrub and young trees, together with the loss of shaded hedge-bottom or bank conditions.

The ecological effect is not confined to the triangular area shown on a highway drawing. Opening a splay can expose previously sheltered vegetation to increased sunlight, wind, dust and road spray. It can alter the humid microclimate at the base of a hedge and interrupt the continuity between verge, bank, hedge and ditch.

Where a splay is said to be temporary, the application must establish when it will cease to be needed and how its former vegetation will be restored. Where the access is retained for operation, panel replacement or decommissioning, the effect may continue for decades.

Hedgerow and bank removal

Many Claylands hedges are established on historic banks with associated ditches. Their botanical interest may lie not only in woody hedge species but in the ground flora of the bank, base and adjoining verge. Removal of a short hedge section can therefore affect several habitat components simultaneously.

Norfolk Wildlife Trust records that the Environmental Statement identifies partial removal of 32 hedgerows, removal of five trees and temporary removal of hedge sections for cable installation and access. It requests confirmation that no ancient or species-rich hedgerows will be removed, even temporarily, and seeks detailed restoration and monitoring for any removal.

The repeated creation of access gaps across a dispersed Scheme cannot be treated as one small effect. Each gap may remove woody vegetation, bank flora and soil; interrupt a linear habitat; expose adjacent vegetation to edge effects; and create an area subject to repeated vehicle movement. The cumulative botanical effect must be assessed across all sites, accesses, haul routes and cable crossings.

Soil disturbance and mixing

Highway construction commonly involves excavation, grading, temporary storage and replacement of soil. Unless the existing soil profile is carefully characterised and separately handled, valuable surface soil and seed banks may be mixed with subsoil or imported aggregates.

This can alter:

- soil fertility and pH;
- soil depth and moisture retention;
- the distribution of dormant seeds;
- mycorrhizal and microbial communities;
- and the suitability of the substrate for the former vegetation.

Species-rich grassland and long-established verge communities often depend upon relatively low soil fertility. Nutrient enrichment from imported topsoil, construction mud, straw, fertilisers or inappropriate reinstatement material may favour a small number of vigorous grasses and weeds, displacing less competitive plants.

The application has not demonstrated, for every affected verge, that soils will be stripped, stored and replaced in a manner appropriate to that particular botanical community.

Compaction

Norfolk Wildlife Trust expressly identifies soil compaction from repeated vehicle movements as a threat to roadside verge habitat, including damage from HGVs and abnormal loads overrunning the carriageway edge. It warns that direct removal is not necessary for ecological degradation to occur.

Compaction reduces pore space, impedes root growth, changes infiltration and aeration, and can alter the balance between species adapted to drier, wetter or less disturbed conditions. Damage may extend beyond the visible wheel rut because heavy vehicle loading affects the soil profile beneath and beside the point of contact.

This pathway is particularly credible on narrow lanes where large vehicles may need to mount or overrun soft verges, pass opposing traffic, negotiate bends or wait for escorts. Temporary protective matting does not necessarily prevent deeper compaction, particularly under repeated HGV loading or in wet conditions.

The Applicant must therefore identify the maximum vehicle tracking envelope, not merely the nominal carriageway width, and survey all verge habitat within that envelope.

Drainage alteration

Verges, hedge banks and ditches form an integrated drainage system. Road widening, culvert works, new kerbing, hardstanding, grips, drainage channels and changes in road camber may redirect water or alter seasonal soil moisture.

This matters botanically because the distribution of plants along a rural verge may reflect fine-scale hydrological variation. A short section may support damp grassland, ditch-edge or seepage vegetation, while an adjoining raised bank supports a drier community. Altering the drainage regime can damage a plant assemblage without physically removing it.

The same applies to lowland meadow habitat. Meadows may depend upon a particular combination of groundwater, surface-water movement, periodic saturation and low nutrient inputs. Drainage intended to protect an access or working area can dry one part of the habitat while concentrating runoff, sediment or pollutants in another.

Construction access and indirect disturbance

Roadside habitats may also be affected by:

- storage of materials and spoil;
- placement of traffic signs, barriers and temporary lighting;
- installation of fencing;
- refuelling or plant maintenance;
- deposition of dust and mud;
- accidental fuel or hydraulic-fluid releases;
- road-salt or contaminated runoff;

- repeated cutting to maintain clearance;
- and colonisation by invasive plants carried on machinery.

These effects can extend outside the permanently acquired highway footprint. A narrow construction boundary on a plan does not demonstrate that adjoining vegetation will remain unaffected.

Norfolk Wildlife Trust's conclusion is therefore important. It states that many rare plants persist on road verges precisely because those areas have escaped agricultural improvement and that temporary works can cause disproportionate ecological damage. It asks the Examination to establish the full extent of verge loss, compaction, disturbance and vegetation clearance and to secure avoidance, protection, reinstatement and monitoring through the DCO.

BEPS agrees. A commitment to use existing accesses 'where practicable', retain vegetation 'wherever possible' or determine final works after contractor appointment is not sufficient. The full maximum highway footprint must be surveyed and assessed before the works are authorised.

8.10.3 Roadside Nature Reserves and Parker's Lane

Roadside Nature Reserves require separate consideration because they are not ordinary pieces of highway verge. Their designation records recognised local ecological importance, often based upon botanical interest that has survived within the road corridor despite extensive loss from the surrounding countryside.

The Applicant's own desk study includes Roadside Nature Reserves within its non-statutory designated-sites baseline and describes individual reserves as road verges with notable botanical diversity. Norfolk Wildlife Trust confirms that the Order Limits include or adjoin several Roadside Nature Reserves, expressly including Bussey's Loke, Market Lane and Parker's Lane.

The fact that these are non-statutory designations does not deprive them of planning significance. Their designation is evidence that a competent conservation body or local authority has identified ecological value warranting recognition and management. The decision-maker must consider both direct effects upon the designated verge and indirect effects upon the conditions which sustain it.

The Applicant's position that no activities other than limited vegetation management are proposed within certain Roadside Nature Reserve boundaries does not answer the issue. Norfolk Wildlife Trust expressly states that the ES acknowledges potential temporary reductions to overgrown hedgerows and tree canopies beside access roads but does not comprehensively assess verge impacts throughout the transport network. Nor does a commitment confined to the mapped RNR boundary address:

- HGV or abnormal-load overrun;
- compaction beside the carriageway;
- temporary signs, barriers or lighting;
- changes to drainage;
- removal of adjacent hedge sections;
- dust and sediment deposition;

- altered verge management;
- works immediately outside the designation;
- or effects upon an adjoining meadow or connected habitat.

Parker's Lane

Parker's Lane is specifically identified by Norfolk Wildlife Trust as one of the Roadside Nature Reserves included within or adjoining the Order Limits. The transport evidence also places Parker's Lane within the Scheme's wider access and traffic-management network.

The Wood Green representation is important in this context because it identifies the risk as direct and site-specific rather than merely a general concern about rural verges. It raises the relationship between the designated roadside habitat, the associated lowland meadow resource and the works that may be required to make the construction and cable strategy function.

That relationship must be assessed as an ecological unit. A roadside verge may provide the surviving connection between a meadow, hedgerow, ditch and nearby woodland or grassland. Damage to the verge can therefore isolate the meadow or reduce its effective size even where the principal meadow polygon is not directly excavated.

The Applicant should not be permitted to draw a narrow line around the formal RNR and conclude that everything outside that line is ordinary highway land. The relevant receptor includes:

- the designated verge;
- any supporting bank, ditch and hedgerow;
- adjoining species-rich or lowland meadow vegetation;
- the soil and hydrology sustaining those habitats;
- and the ecological connection to Wood Green and the wider habitat network.

Lowland meadow and historic habitat loss

Lowland meadow is a priority habitat whose value depends upon more than the presence of grass cover. Its significance arises from the plant community, soil conditions, management history and associated invertebrate and animal assemblages.

The historical evidence makes remaining meadow habitat particularly important. Restoring the Claylands records that pasture and grassland once formed a much greater part of the South Norfolk landscape but declined through enclosure, agricultural change and especially post-war ploughing and intensification. The surviving areas are remnants of a formerly connected landscape.

The relevant baseline is therefore not that a small meadow remains among extensive arable fields and can be balanced against a larger area of proposed new grassland. The correct baseline recognises that:

- a substantial proportion of the historic meadow resource has already been lost;
- surviving examples may retain long-established soils and seed banks;

- small and linear remnants may be essential to ecological connectivity;
- the condition and species composition cannot be inferred from aerial mapping;
- and newly sown grassland is not immediately equivalent to an established lowland meadow.

The Applicant's priority-habitat mapping itself identifies lowland meadow among the habitat types occurring through the wider Scheme landscape. That should have prompted a precautionary survey of every meadow and grassland fragment potentially exposed to highway or cable works.

Survey must precede authorisation

The Wood Green and Parker's Lane evidence demonstrates why botanical and hedgerow surveys cannot be deferred until after consent.

Before any highway work, access construction, cable installation, visibility clearance or vegetation removal is authorised in this area, the Applicant should be required to provide:

1. a full botanical survey of the Roadside Nature Reserve and all adjoining verge and meadow habitat;
2. repeat visits at appropriate seasons;
3. a National Vegetation Classification or equivalent detailed community assessment where potentially species-rich or priority grassland is present;
4. a hedgerow survey identifying woody species, ground flora, bank, ditch, age and historical importance;
5. mapping of the precise RNR and lowland meadow boundaries;
6. soil and hydrological assessment;
7. fixed maximum construction and vehicle-tracking envelopes;
8. final visibility-splay and passing-place drawings;
9. and an impact assessment addressing direct loss, compaction, drainage, dust, pollution, fragmentation and management change.

The outcome must inform the design. Survey undertaken only after the DCO has authorised the works would reverse the mitigation hierarchy: it would discover the receptor after the location and principle of the potentially harmful intervention had already been approved.

Where survey identifies species-rich verge, important hedgerow, lowland meadow or an ecologically necessary connection, the work should be removed or rerouted. Later reinstatement should not be accepted as a substitute for avoiding the loss of an established community.

8.10.4 Field margins and cable corridors

The same principle applies to field margins throughout the Scheme. They cannot be treated as spare engineering land simply because their use would avoid trenching through the centre of a crop.

The Applicant's own habitat evidence records field margins throughout the Order Limits. These include modified grassland margins, other neutral grassland, floristically diverse strips, tussocky

grass margins and areas sown with wildflowers or pollen and nectar mixtures. Arable field margin is itself identified as priority habitat present within the Scheme.

The Cable Route Corridor is likely to encounter these features repeatedly because field margins provide apparently convenient linear routes between sites. But engineering convenience is not evidence of ecological acceptability.

Norfolk Wildlife Trust stated during consultation that no detailed habitat mapping had been provided for the Cable Route Corridor. It emphasised that underground cable works can adversely affect biodiversity, that routes must be designed to avoid important habitat, that hedgerow removal should be minimised, and that retained boundaries are important for landscape connectivity.

The Applicant's later assessment must therefore be tested against whether it now provides a route-wide, species-level botanical baseline for the complete cable working area. Mapping the broad habitat crossed by the centre line is insufficient where the actual construction footprint may include:

- one or more cable trenches;
- haul and access tracks;
- working strips;
- topsoil and subsoil storage;
- drainage and pumping;
- jointing bays;
- compounds;
- HDD launch and reception areas;
- security fencing;
- and turning or parking areas for plant.

Each of those elements may extend into a margin that the final cable itself does not occupy.

Botanical assemblages

Field margins may contain plants excluded from the cultivated field by herbicide use, ploughing or crop competition. They may also retain remnants of earlier grassland, hedge-bank or wet-ditch communities. Their flora can vary substantially over short distances according to management, aspect, shading, soil type and moisture.

Trenching can destroy established plants and mix their seed bank through the soil profile. Heavy plant can compact adjoining vegetation. Stockpiling can smother the margin and enrich it with nutrients. Reinstatement can introduce a uniform seed mix unrelated to the previous flora.

The Applicant has not established that the relevant margins are botanically interchangeable or that every affected community can be recreated after construction. Where important assemblages are found, the proper response is route avoidance or a crossing method that retains the habitat and its soils undisturbed.

Invertebrates

Botanically diverse field margins provide flowering resources, foliage, stems, litter and overwintering habitat for invertebrates. Even where a specific invertebrate assemblage has not been fully surveyed, the ecological pathway is evident: reducing plant diversity and structural variation is likely to reduce the range of niches and food resources available.

This function extends beyond the margin itself. Invertebrates emerging or dispersing from grassland, hedgerows, ditches and woodland edges provide prey for birds and bats. Loss or degradation of a narrow margin may therefore affect other receptors without producing a large area of direct habitat loss.

A metric calculation based on the number of hectares temporarily disturbed does not capture those food-web and connectivity functions.

Farmland birds

The Applicant's ecological material recognises that fields, hedgerows and grassland margins provide nesting and foraging opportunities for red- and amber-listed farmland birds, including skylark, turtle dove, corn bunting and reed bunting.

Different species use margins in different ways. They may provide seed, invertebrate prey, nesting cover, shelter or a transition between crop, hedge and ditch. Margins managed through stewardship or pollen-and-nectar prescriptions may have been deliberately created to support those functions.

Construction can affect them through vegetation clearance, repeated disturbance, trenching, lighting, noise, loss of cover and changes in future management. Restoring a strip after the cable is installed does not eliminate the temporary loss during construction, and there is no assurance that the restored strip will regain its previous plant composition or bird use.

The Applicant must therefore assess margins as part of the farmland-bird habitat mosaic, not merely as a botanical polygon.

Bat prey and commuting habitat

The Applicant itself states that hedgerows, tree lines, woodland and ditches provide suitable bat foraging and commuting habitat and that areas near riverine habitats and woodland are likely to support higher activity. Norfolk Wildlife Trust likewise stresses that the Scheme's nationally important bat assemblage depends upon connected networks of hedges, woodland edges, tree lines and watercourse corridors.

Field margins contribute to that system in two related ways.

First, flowering and structurally varied vegetation supports invertebrates forming bat prey. A margin beside a hedge or ditch can therefore increase the foraging value of the linear feature.

Second, the combined hedge–margin–ditch structure provides a wider and more sheltered corridor than the hedge alone. Trenching or stripping the margin may reduce habitat quality even where the woody hedge is retained. The Applicant's repeated reliance on hedge retention therefore does not demonstrate that corridor function will be maintained if the associated margin is compacted, cleared, lit or used as a haul route.

This is particularly important within a landscape the Applicant has assessed as nationally important for foraging and commuting bats. The effect of numerous small margin losses and working corridors must be assessed cumulatively across the multiple sites and maternity-colony sustenance zones.

Ecological connectivity

Field margins connect ponds, woods, hedgerows, ditches, grassland fragments and road verges. Their significance therefore depends partly on position rather than area. A narrow strip connecting two larger habitats may have greater functional importance than a larger isolated grassland parcel.

Norfolk Wildlife Trust's Claylands evidence expressly states that connecting grassland areas by unploughed margins significantly multiplies environmental benefit. The reverse is also true: removing, narrowing or repeatedly disturbing such a margin can disproportionately reduce connectivity.

Cable construction may create several forms of severance:

- removal of hedge sections at field boundaries;
- stripping of the margin parallel to a hedge;
- crossing of ditches;
- temporary lighting at compounds;
- movement of heavy machinery;
- and establishment of long working corridors through previously continuous habitat.

The Applicant must therefore identify ecological bottlenecks and connected margin systems before fixing the cable route. It is not enough to reinstate a line after construction without showing that its interim loss, altered soils and future management will not reduce ecological function.

Reinstatement is not equivalent to avoidance

The Applicant may argue that cable impacts are temporary because trenches will be backfilled and the ground reseeded. That conclusion is not justified without receptor-specific evidence.

Successful restoration depends upon:

- preserving the correct soil horizons;
- retaining an appropriate seed bank;
- avoiding compaction;
- preventing nutrient enrichment and contamination;
- using suitable locally derived material;

- matching previous hydrological conditions;
- controlling invasive species;
- and maintaining the area for long enough to restore the former community.

Even then, the result may not be equivalent to an established margin or lowland meadow. Where the original habitat contains a locally important assemblage or has a strategic connecting function, the mitigation hierarchy requires avoidance before restoration is considered.

The same objection applies to Biodiversity Net Gain. Proposed wildflower areas elsewhere cannot compensate automatically for the loss of a particular established margin, verge or meadow whose value lies in its species composition, soils, history and position within the ecological network. Habitat units do not demonstrate continuity of ecological function.

Conclusion and remedies sought

The botanical issue is not a minor matter capable of being left to a pre-construction walkover. The evidence presently available shows:

- a Claylands landscape in which much historic meadow, pasture, hedgerow and pond habitat has already been lost;
- surviving species-rich hedgerows, grassland strips, Roadside Nature Reserves and locally important meadow flora;
- priority arable margins, lowland meadow and other grassland habitats within the Scheme's ecological network;
- a Level 6 botanist's recommendation for full-season survey;
- an Applicant survey that expressly does not constitute a full botanical assessment;
- highway and access proposals involving visibility splays, vegetation removal and potential verge intervention;
- designated roadside habitat at locations including Parker's Lane;
- and cable and construction works concentrated within the margins and boundaries most likely to retain botanical value.

On that evidence, the Applicant has not demonstrated that the likely botanical effects have been identified, avoided or adequately mitigated. It has also not shown that proposed road, cable and access works can be delivered without unacceptable harm to Roadside Nature Reserves, lowland meadow, species-rich verges, important hedgerows and ecologically functional field margins.

BEPS requests that no highway improvement, visibility splay, passing place, access, cable working area or vegetation-removal power be authorised unless the complete maximum footprint has first been subject to full-season botanical and hedgerow survey and the results have been incorporated into a revised impact assessment and fixed design.

At minimum, the Applicant should be required to provide:

- full-season botanical surveys by suitably qualified botanists across all affected verges, Roadside Nature Reserves, lowland meadow, field margins, ditch edges, cable corridors and access works;

- detailed surveys of Parker's Lane and the Wood Green verge–meadow network;
- route-wide hedgerow assessment, including banks, ditches and ground flora;
- final visibility-splay, passing-place, access and vehicle-tracking plans;
- mapping of every area at risk of overrun, compaction, storage or drainage alteration;
- avoidance of all Roadside Nature Reserves, priority lowland meadow, important botanical assemblages and ancient or species-rich hedgerows;
- fixed exclusion zones preventing plant, compounds, lighting and storage from encroaching upon retained habitat;
- receptor-specific soil handling, reinstatement and invasive-species controls;
- and long-term botanical monitoring with measurable restoration criteria and remedial obligations.

Where those surveys identify important assemblages or ecological connections that cannot be protected, the affected works must be removed or rerouted. The discovery of such habitats after consent should not be managed merely through later mitigation because, by that stage, the Applicant would already possess powers to undertake the works.

BEPS therefore submits that the current botanical evidence is insufficient to support the Applicant's conclusion of no significant residual ecological effect. Development consent should not be granted on the assumption that unsurveyed verges, meadows and field margins can be disturbed and later recreated. The mitigation hierarchy requires the Applicant first to establish what is present and then to avoid the harm. It has not yet done so.

8.11 Breeding and wintering birds

The East Pye landscape supports a substantial assemblage of breeding and wintering farmland birds. Its ecological value arises from the combination of large open arable fields, grazing pasture, winter stubbles, game-bird and wildflower strips, field margins, species-rich hedgerows, mature trees, scrub, ponds, reedbeds, ditches, watercourses and woodland edges. Those habitats perform different but complementary functions: open fields provide breeding territories for ground-nesting birds; hedgerows and scrub provide nesting cover; margins and low-input crops provide seed and invertebrate food; and ponds, ditches and reedbeds support wetland-edge species.

The Applicant's final breeding-bird survey recorded 85 species between May 2024 and July 2025. It confirmed linnet, skylark and yellowhammer—all Birds of Conservation Concern Red List species—as breeding within the survey area. Dunnock, moorhen and whitethroat were confirmed as breeding Amber List species. Barn owl, greenfinch, kestrel, mallard, song thrush, woodpigeon and wren were assessed as probable breeders.

The Applicant's Planning Statement separately acknowledges that some fields are subject to Countryside Stewardship and that priority birds confirmed as breeding within the Order Limits include linnet, skylark and yellowhammer. It records that many territories are associated with mature boundary hedgerows, trees and field margins, while skylark territories occur within the arable fields themselves.

That evidence is incompatible with any general characterisation of the affected land as ecologically neutral or as merely low-value intensive arable land. The Applicant's own results demonstrate that the fields and boundaries currently perform active breeding functions for declining farmland birds.

The Applicant nevertheless values the breeding-bird assemblage at only Local importance and assesses most arable fields as being of negligible nesting value, apart from their use by skylark. It then limits its assessment of all breeding birds other than skylark to construction and decommissioning, because operational effects were scoped out. That approach understates three important matters.

First, the value of the landscape is not confined to nests physically located within hedgerows. Open cropland, field margins, stewardship features and adjoining boundary habitats operate together as a breeding and feeding system. Secondly, the change from open farmland to arrays of panels, fencing, tracks, substations, inverters and maintenance infrastructure is an operational land-use change, not merely a temporary construction effect. Thirdly, the Applicant's own species-specific skylark assessment accepts that the solar arrays will render substantial areas unsuitable for nesting. The same operational layout may affect the availability, accessibility and functional relationship of nesting and foraging habitats used by other species, even where nests are concentrated in retained boundaries.

Norfolk Wildlife Trust raised precisely this point during consultation. It advised that priority species unlikely to be accommodated within the solar footprint, expressly including skylark and lapwing, required a separate mitigation strategy if present. It also advised that operational effects should be assessed and monitored rather than being scoped out and expressed concern that hedgerow, tree and scrub removal could affect breeding birds.

The wintering-bird position is still weaker. The Applicant proposed to scope out wintering and passage birds in all phases. Its reasoning focused primarily on the perceived unlikelihood that whooper swan and Bewick's swan associated with the Broadland SPA and Ramsar site would regularly use the Scheme. It then assumed that future habitat management would benefit wintering buntings, larks, finches and partridges by increasing food and shelter.

The Planning Inspectorate accepted that scope-out at scoping stage on the evidence and assumptions then presented. It did not make a finding, based upon winter survey data, that no locally important wintering assemblage existed. The final Environmental Statement confirms that wintering and passage birds were not assessed because PINS and Natural England had agreed to the scope-out.

That distinction matters. A decision to scope out effects based upon an assumed future benefit is not evidence that the existing wintering function of the land has been identified or that the assumed benefit will occur. The Applicant has not provided a wintering-bird survey capable of establishing:

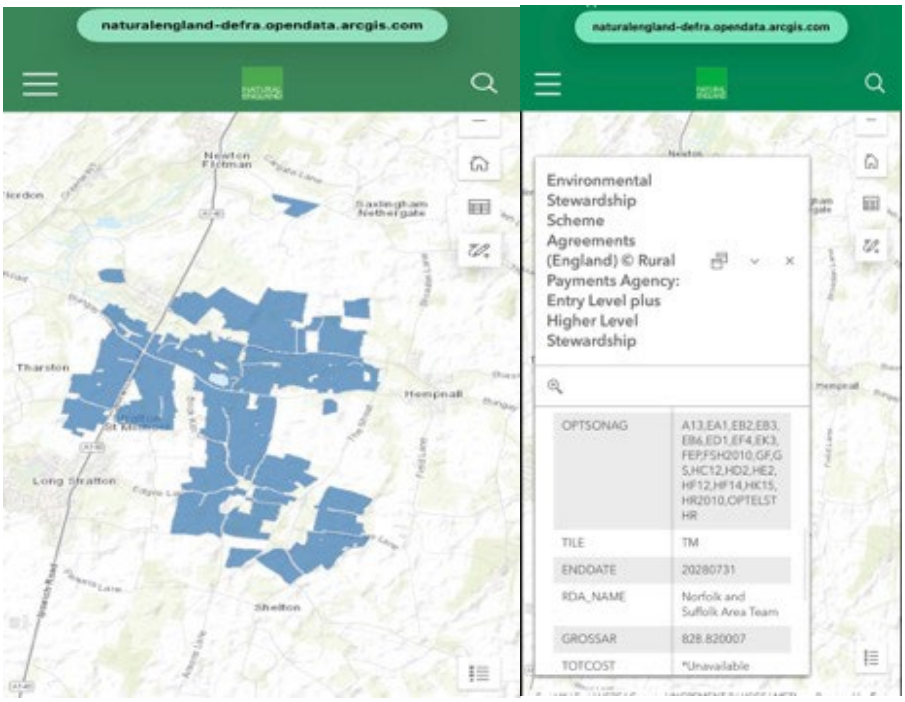
- which fields are used by winter flocks;
- the importance of winter stubbles, stewardship plots and seed-rich margins;
- the locations and sizes of regular aggregations;
- movement between feeding and roosting areas;

- the relationship between local flocks and the Scheme's woodland, reedbed and settlement-edge roosts;
- or how concurrent construction across multiple parcels would affect the availability of alternative feeding areas.

BEPS therefore submits that the effects on breeding and wintering birds have been materially understated. The issue is not confined to avoiding destruction of active nests. It includes permanent displacement from open breeding habitat, interruption of established stewardship management, loss of winter feeding resources, degradation of hedgerow and margin habitat, disturbance, fragmentation and the absence of demonstrated replacement habitat capable of performing the same species-specific functions.

8.11.1 Countryside Stewardship Scheme

The proposed East Pye Solar development is not situated on ecologically neutral or ordinary agricultural land. Evidence from Natural England's Environmental Stewardship spatial data confirms that substantial parts of the Order Limits – including land parcels 4, 5 and 7 – are subject to active agri-environment agreements, comprising Entry Level Plus and Higher Level Stewardship extending to at least 2028. These agreements are not incidental; they are structured, publicly funded interventions designed to restore and maintain declining farmland biodiversity, particularly ground-nesting and arable-associated bird species.



The option codes recorded for these agreements (including A, EB, EF and related prescriptions) are characteristic of measures such as low-input cropping, overwinter stubbles, field margins, and habitat mosaics specifically intended to support farmland bird assemblages. This aligns directly with field evidence across the Site, where multiple Birds of Conservation Concern (BoCC Red and Amber List species) are recorded, including skylark, lapwing, yellowhammer, linnet, starling and others. Several parcels are explicitly identified within Countryside Stewardship targeting frameworks for priority farmland bird species, and the ecological conditions present – large, open arable fields with low disturbance and managed margins – are those required for successful skylark and lapwing breeding.

Accordingly, the Site currently functions as **active conservation land**, delivering ecological outcomes funded through public money. It is not baseline farmland awaiting enhancement. This distinction is critical and has not been properly reflected in the Applicant's assessment.

The industrialisation of this landscape through the introduction of extensive solar infrastructure, security fencing, lighting, inverter stations and construction disturbance would result in the direct displacement and functional loss of this managed habitat. Ground-nesting birds such as skylark and lapwing are particularly sensitive to enclosure, fragmentation and disturbance; the transformation of open arable systems into enclosed, engineered parcels would render large areas unsuitable for breeding. These impacts are not speculative but well established in ecological literature and reflected in the targeting rationale of the stewardship schemes themselves.

This has three significant implications.

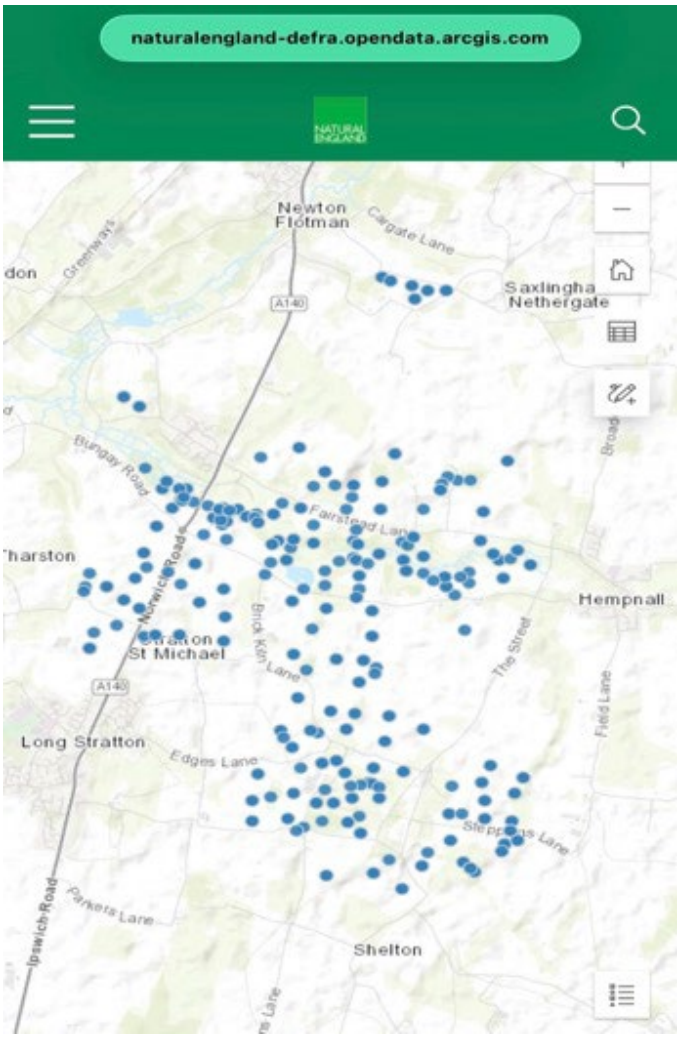
First, in **Biodiversity Net Gain (BNG)** terms, the Applicant's position is fundamentally undermined. BNG calculations premised on a low ecological baseline are invalid where land is already delivering enhanced biodiversity under stewardship. The Scheme would not be creating biodiversity value from a neutral baseline, but replacing an existing, functioning ecological system with one of uncertain and likely reduced value. There is no evidence that the specialised habitat requirements of farmland bird assemblages – particularly open, disturbance-free breeding territories – can be recreated within a solar array layout.

Second, the Scheme would result in the **loss of publicly funded environmental goods**. Countryside Stewardship agreements represent targeted investment by the state to reverse long-term declines in farmland birds. Their displacement by private energy infrastructure raises a clear issue of policy conflict: land currently subsidised to deliver biodiversity recovery would be removed from that function without any demonstrated equivalence in replacement. This is not merely habitat loss, but the loss of an ongoing, funded conservation programme.

Third, the **ecological damage is cumulative and structural**, not minor or mitigable. The Site forms part of a wider farmed landscape supporting interconnected populations of declining bird species.

The removal and fragmentation of stewardship-managed land across multiple parcels risks undermining the integrity of that network, reducing breeding success, and contributing to further regional decline of already threatened species.

In this context, the Birds of Conservation Concern recorded within the Site are not incidental occurrences. They are indicators of a landscape that is currently functioning, by design and by public investment, as a recovery area for declining farmland biodiversity. The failure to recognise and assess this baseline condition represents a fundamental flaw in the ecological assessment of the Scheme.



The consequences of development in this context are immediate and irreversible. The stewardship options identified are not passive designations but active management prescriptions that require continuity over time to deliver ecological outcomes, particularly for ground-nesting and overwintering farmland birds. The Environmental Stewardship data confirms that these

agreements commenced in approximately 2013 and are secured until at least 2028, meaning that the Site has been subject to sustained ecological management for over a decade. This duration is significant: it reflects the gradual establishment and maturation of habitat conditions required by declining farmland bird species, including the development of suitable breeding territories, foraging resources and landscape-scale ecological coherence.

The timing of the proposed development is therefore directly conflicting. Construction of the Scheme is anticipated to begin at or around the point at which these agreements are still active, resulting in their premature termination or effective nullification. This would lead to the abrupt cessation of long-established ecological management and the immediate loss of habitats that have taken years to develop. This is not a gradual transition but a step-change: land that has been deliberately managed for biodiversity recovery over an extended period would be converted into an industrialised landscape of panels, fencing and infrastructure, rendering it unsuitable for those species from the outset of construction.

The implications are twofold. First, there is a clear and immediate loss of ecological function at the point of construction, including breeding and foraging habitat for Birds of Conservation Concern, which cannot be maintained during construction and cannot be meaningfully replicated within the operational layout of a solar array. Second, there is a loss of continuity, which is fundamental to the success of stewardship schemes. Many farmland bird populations depend on stable, long-term habitat management; interrupting that management after more than a decade of delivery risks undermining breeding success, disrupting established territories, and contributing to further population decline. The Scheme therefore conflicts directly with the objectives and temporal logic of the stewardship agreements themselves, resulting in the displacement of a long-standing, publicly funded conservation regime without any demonstrated equivalence in replacement

Skylarks

The application area includes land that has been **specifically targeted and actively managed for skylark conservation under Countryside Stewardship agreements**, including **Land Parcels 4, 5 and 7**, where field-level stewardship options are in place to support breeding territories. These agreements, many of which commenced in 2013 and run until 2028, have been publicly funded to create and maintain suitable nesting habitat for skylarks (open arable fields with low disturbance and appropriate sward structure). The proposed introduction of industrial-scale solar infrastructure into these parcels would result in the **immediate and irreversible loss of this purpose-built habitat at the point construction is due to begin**, directly undermining over a decade of ecological investment. There is a substantial and well-established evidence base demonstrating that skylarks are **highly sensitive to vertical structures, enclosure and disturbance**, with studies consistently showing **reduced territory density, displacement, and in some cases complete abandonment of solar sites** where panel arrays, fencing and associated infrastructure fragment open farmland. The effect is not mitigable through Biodiversity Net Gain measures, as skylarks require large, uninterrupted expanses of open ground and do not adapt to

the presence of panel rows or enclosed layouts. The conversion of these stewardship-managed fields therefore represents not only a significant ecological impact on a species of principal conservation concern, but also a **misuse and nullification of public environmental funding**, with direct conflict between agri-environment policy objectives and the proposed development.

The Applicant recorded 81 skylark breeding territories, of which 70 occur within areas subject to permanent development. It confirms that skylark was the only open-habitat ground-nesting species proven to be breeding within the Order Limits during its survey and recognises the species as both Red Listed and a species of principal importance under section 41 of the Natural Environment and Rural Communities Act 2006.

Seventy affected territories is not a theoretical habitat-suitability calculation. It is direct evidence that the land proposed for permanent development currently supports an extensive breeding population.

The Applicant also makes a significant admission regarding the effect of the Scheme. It accepts that nesting within solar arrays is rare or non-existent and that the shaded, fragmented and enclosed conditions beneath panels reduce visibility and appear to increase predation risk. It consequently assumes that skylarks will be deterred from nesting in fields containing solar arrays, the BESS and associated infrastructure.

The permanent development would therefore remove the nesting function of land containing most of the recorded territories. The fact that skylarks may continue to fly, display or forage above or beside panels does not replace the lost breeding territories. Foraging use and successful nesting are different ecological functions.

The Applicant attempts to convert this admitted displacement into an overall beneficial effect by arguing that grass beneath panels may provide additional invertebrate prey for birds nesting on surrounding land. However, it has not demonstrated:

- that the surrounding land has sufficient unoccupied nesting capacity for displaced pairs;
- that displaced birds will establish territories there rather than compete with existing pairs;
- that the distance between replacement nesting land and panel-field forage is suitable;
- that management beneath panels will produce the assumed prey resource;
- or that increased foraging opportunities would compensate for the loss of 70 known territories.

The Applicant's proposed skylark plots do not answer that problem. Chapter 8 expressly states that skylarks do not nest in those plots: the plots provide access and foraging opportunities within dense cereal crops. The Applicant identifies a 60-hectare rotational area within which at least 40 hectares of arable land would contain skylark plots, together with open grassland at Sites 3, 4B, 8B and 10B.

No calculation demonstrates how many breeding territories those areas can support. Nor is there a territory-by-territory comparison between the 70 territories displaced and the proposed replacement nesting resource. The mitigation therefore lacks the basic evidence needed to

demonstrate equivalence: available area, habitat structure, territory density, location, continuity, freedom from disturbance and predicted breeding capacity.

The affected skylark population also cannot be dismissed merely because it represents less than one per cent of an historic county estimate. The planning question is whether the Scheme will cause significant effects upon the identified population and whether the mitigation hierarchy has been applied. A percentage comparison with the whole Norfolk population does not replace assessment of the consequences of displacing most of the territories recorded within the Order Limits.

Lapwing

The Applicant states that no lapwing were found breeding within the Sites during its survey. That result must be recorded accurately. It does not, however, establish that the affected land has no lapwing function or that future use can be excluded.

BEPS' review of Defra and Natural England spatial data identifies parts of the Scheme, particularly in Site 7, as lying within stewardship targeting for lapwing and other declining farmland birds. The BEPS scoping response specifically identified land managed for a farmland-bird assemblage including lapwing and asked that wintering and passerine birds be assessed rather than scoped out.

The Site 7 design history adds further evidence. The Applicant's earlier layout retained large open cultivated areas within Sites 7D and 7F 'for habitat and to provide open areas for species, for example nesting birds'. The targeted consultation subsequently reduced the open area at Site 7D and introduced an access through or immediately beside the retained area. BEPS' targeted-consultation representation identified the land as a lapwing stewardship priority and objected that the revision reduced the open habitat without a corresponding updated assessment of ground-nesting birds.

The absence of a breeding territory during one survey programme does not erase the conservation purpose of the land or establish that it will not be used in another year. Use by lapwing can vary with crop, soil moisture, cultivation, vegetation height, disturbance and seasonal conditions. That variability is precisely why sustained stewardship management and maintenance of suitable open land matter.

The Applicant should therefore distinguish between:

- no breeding lapwing recorded during the particular survey period;
- desk and local records of lapwing in the wider Scheme landscape;
- land managed or targeted to provide suitable lapwing conditions;
- and the future potential of that land if management continues.

It has instead treated the survey result as sufficient reason to omit any lapwing-specific mitigation. Norfolk Wildlife Trust's advice was that lapwing, if present and not accommodated within the solar footprint, required separate mitigation and operational monitoring. No precautionary area has

been secured specifically to maintain future lapwing breeding function, despite the identified stewardship context and the acknowledged need for open land.

Turtle dove

The turtle-dove evidence also extends beyond the Applicant's breeding-season territory results.

The Applicant's desk study returned multiple turtle-dove records across the search area. These included historic records associated with Sites 1B, 2B, 3 and 7C and three more recent records from Site 7L dating between 2004 and 2012. At scoping, the Applicant itself identified turtle dove among the Red List species likely to occur within the South Norfolk farmland assemblage.

Norfolk Wildlife Trust's Relevant Representation describes the Scheme landscape as supporting local populations of rare farmland birds, expressly including turtle dove, corn bunting and yellowhammer. It emphasises that the ecological character of the area is not one of large, featureless fields but of a connected Claylands mosaic containing species-rich hedges, margins, woods, ponds, verges and other habitats.

BEPS' review of stewardship and local records likewise identifies turtle dove as one of the target farmland species relevant to affected land.

The final breeding-bird summary does not identify turtle dove as confirmed or probable breeding during the Applicant's survey period. That should not be converted into a finding that the species has no relationship with the Scheme. The desk records demonstrate previous use of several individual sites, including comparatively recent records at Site 7L. The landscape also retains the combination of dense hedgerows or scrub for nesting and seed-rich, sparsely vegetated foraging habitat upon which the species' use would depend.

The relevant impact pathways include:

1. loss or repeated disturbance of dense hedgerow and scrub nesting habitat;
2. loss of open seed-rich feeding areas;
3. removal of stewardship margins;
4. construction noise and vehicle activity close to potential nesting boundaries;
5. severance between nesting and foraging habitat;
6. and changes in long-term hedge and margin management.

Generic new planting does not necessarily provide equivalent turtle-dove habitat. Newly planted hedges require time to develop the height, width and density needed for nesting, while generic grassland beneath panels does not necessarily provide the open, seed-rich feeding conditions associated with the species.

A precautionary strategy should therefore retain and manage the specific former-record locations and connecting habitat, provide species-appropriate forage in advance of construction and require continuing survey during the appropriate season. No such turtle-dove-specific strategy is presently secured.

Yellowhammer and linnet

Yellowhammer and linnet are not merely desk-study possibilities. Both were confirmed breeding during the Applicant's surveys and are identified by the Applicant as Red List priority birds within the Order Limits.

Their presence confirms the ecological function of the field-boundary network. The Applicant records that many breeding territories are associated with mature hedgerows, trees and field margins. Those habitats provide nesting cover, song posts, seed resources and invertebrate prey and connect the open fields with scrub, woodland and ditch habitats.

The Applicant's reliance on retaining most hedgerows does not demonstrate that those functions will remain unaffected. The Scheme requires repeated access gaps, cable crossings, visibility works and construction activity along field boundaries. Chapter 8 accepts working widths of up to ten metres where access or cabling crosses hedgerows, field margins or ditches, but treats each loss as a very small part of the overall network and assumes reinstatement will prevent significant effects.

That approach does not assess:

- the relationship between each proposed gap and mapped breeding territories;
- whether several territories depend upon the same boundary;
- the effect of construction disturbance on adjoining retained habitat;
- the delay before reinstated vegetation becomes suitable for nesting;
- or the cumulative consequences of repeated severance throughout the Scheme.

For yellowhammer and linnet, a hedge that remains physically present may nevertheless lose ecological value if its margin is stripped, the adjoining food resource is removed, vegetation is repeatedly cut, lighting is introduced or construction activity occurs throughout the breeding season.

Bullfinch and song thrush

Song thrush was assessed by the Applicant as a probable breeder. Bullfinch appears within the wider local bird records collated by BEPS, although it is not identified as a confirmed or probable breeder in the Applicant's Chapter 8 summary.

These species reinforce the value of the Scheme's hedges, scrub, woodland edges, mature trees and damp margins. Their interest cannot be measured solely by the number of metres of woody vegetation removed. Habitat structure, understorey, adjoining food resources, leaf litter, invertebrate abundance and the relationship between boundaries and woodland all contribute to territory quality.

The Applicant scopes out operational effects on such birds on the basis that maintenance will be occasional and habitat creation will be beneficial. But the operational habitat will be materially different: retained boundaries will adjoin security fencing, panel arrays, tracks and managed solar grassland rather than the existing crop, stewardship and margin mosaic. The Applicant has not

provided a species-specific assessment showing that the altered setting will maintain the present nesting and feeding functions for probable breeders such as song thrush or for locally recorded bullfinch.

Reed bunting and reed warbler

The Scheme contains ditches, wet margins, ponds and reedbed habitat, including mapped reedbed at Site 7B. BEPS' local records include reed bunting, and its full Relevant Representation records that the Applicant's desk and habitat evidence identifies field margins and boundary habitats as supporting farmland birds including reed bunting.

Reed warbler is not identified as a confirmed or probable breeder in the summary results reproduced in Chapter 8. Nor has the material reviewed for this section established a quantified reed-warbler territory within the Order Limits. Its relevance is therefore habitat-based and should not be overstated. Reedbeds and well-vegetated ditches within the Scheme provide potentially suitable habitat, and any local records should be reconciled with the Applicant's raw survey data before the Examination concludes.

For both reed bunting and reed warbler, the important point is that ditch and reedbed habitat cannot be assessed separately from the adjoining margins and hydrology. Construction access, cable works, vegetation clearance, altered drainage, lighting and disturbance may affect the ecological function of retained wetland-edge habitat without removing the mapped reedbed itself.

The Applicant should provide the full registration data for these species and confirm:

- whether they were recorded during any survey visit;
- whether breeding behaviour was observed;
- which ditches or reedbeds were used;
- whether those locations are affected directly or indirectly;
- and what operational management will maintain vegetation structure and water conditions.

In the absence of that information, it is not sufficient to rely on the broad proposition that all valuable nesting habitat is retained within generic buffers.

Corn bunting

Corn bunting was identified in the Applicant's Scoping Report as one of the notable Red List farmland species potentially forming part of the expected breeding assemblage. Norfolk Wildlife Trust also identifies corn bunting among the rare farmland birds occurring within the wider East Pye landscape. BEPS' local record compilation includes the species.

The final Chapter 8 summary does not identify corn bunting as a confirmed or probable breeder. The appropriate conclusion is therefore not that a breeding population has been proven within the Order Limits, but that credible scoping, conservation-body and local evidence establishes a potential and wider landscape interest that should be reconciled with the complete survey results.

Corn bunting is particularly relevant to the Applicant's treatment of open arable land as low-value habitat. The species' ecological requirements depend upon open farmland, song posts, winter seed availability and suitable nesting vegetation. A habitat metric that records the land simply as cropland does not determine whether it performs those functions.

The full Appendix 8.4 registration maps and raw results should be examined to establish whether corn bunting was recorded as a non-breeding visitor, outside a territory cluster or immediately beyond the survey boundary. Unless that information is made readily accessible and assessed against local records, the absence of the species from the short Chapter 8 summary cannot safely be treated as evidence of absence from the Scheme's Zone of Influence.

Local winter starling murmurations

Starling was one of the Red List species the Applicant expected to occur within the South Norfolk farmland assemblage at scoping. Starling also appears in the local bird records compiled by BEPS. Local residents have reported winter starling murmurations within the East Pye landscape.

BEPS does not presently put forward a quantified population estimate for those murmurations. The significance of the local evidence is that the Applicant has undertaken no wintering-bird assessment capable of confirming their scale, regularity, feeding fields, flight routes or roost relationship.

Murmurations are not supported by a single field in isolation. Winter starling aggregations may use a broad landscape of feeding areas during the day and move collectively to sheltered roosts. The relevant Scheme effects therefore include:

- loss of winter stubbles and seed-rich feeding land;
- concurrent disturbance across alternative feeding fields;
- displacement by construction activity;
- alteration of flight routes by extensive infrastructure;
- loss of hedgerow and margin feeding resources;
- and disturbance or lighting near roost approaches.

The Applicant's assertion that future grassland and habitat creation will benefit wintering birds is not a substitute for identifying how the existing landscape is used. Nor can the absence of a winter survey be cured by saying that wintering effects were scoped out before the local evidence had been evaluated.

The Applicant should be required to obtain and assess dated local records, including photographs or video where available, and undertake proportionate winter vantage-point and field-use surveys before concluding that the Scheme will have no significant wintering-bird effect.

Overall existing interest

The evidence must be kept in its proper categories:

1. skylark, linnet and yellowhammer are confirmed breeders;

2. song thrush is a probable breeder;
3. lapwing was not confirmed breeding during the Applicant's survey but is relevant through stewardship targeting and local records;
4. turtle dove has multiple desk records associated with individual Scheme sites;
5. corn bunting is identified by the Applicant at scoping and by NWT and BEPS as part of the wider local farmland-bird interest;
6. bullfinch and reed bunting occur in local records;
7. reed warbler is a potential wetland-edge receptor whose presence requires confirmation from the full survey data;
8. and local winter starling murmurations have been reported but were not investigated because wintering birds were scoped out.

That is an ecologically diverse assemblage dependent upon open fields, stewardship management, mature boundaries, margins, scrub, ditches and wetland features. The Applicant's conclusion that breeding birds are of no more than Local importance does not relieve it of the need to assess those functions properly. Nor does it justify the assumption that generic habitat creation will replace the species-specific value of the existing landscape.

8.11.2 Stewardship land and public investment

Existing agri-environment management is part of the baseline

BEPS' review of Natural England Environmental Stewardship spatial data identifies substantial areas within the Order Limits, including land associated with Sites 4, 5 and 7, as subject to Entry Level Plus and Higher Level Stewardship agreements. The mapped agreements commenced at approximately 2013 and continue to at least 2028. The associated option pattern includes low-input management, field margins, winter food or stubble features and habitat mosaics relevant to declining farmland birds, including skylark, lapwing and turtle dove.

The Applicant acknowledges the underlying point. Its Planning Statement confirms that some fields are subject to Countryside Stewardship. Chapter 8 also expressly recognises that current active Countryside Stewardship schemes or similar arrangements exist, although it dismisses their future significance on the basis that they have finite timescales.

The finite contractual duration of an agreement does not erase the ecological condition produced by that agreement. An EIA baseline must describe the environment as it exists, including management that has shaped current habitats and species use. It cannot treat publicly funded conservation management as though it has already ceased merely because an agreement is due to expire during the proposed construction period.

The affected land is therefore not simply conventional cropland awaiting ecological enhancement by the Applicant. Parts of it have been actively managed through public funding to provide environmental goods. Those functions include:

- open nesting habitat;
- reduced disturbance in selected areas;
- field margins;

- seed resources;
- winter stubble or other winter food;
- varied crop and vegetation structure;
- and connectivity between fields, hedges, ditches and other semi-natural habitats.

The Applicant's 81 skylark territories, including 70 in permanent development areas, provide direct biological evidence that at least part of the existing land-management system is supporting a substantial breeding population. The confirmed breeding of linnet and yellowhammer and probable breeding of song thrush further demonstrate that the fields and boundaries function as more than low-distinctiveness metric habitat.

Management for skylark, lapwing and turtle dove

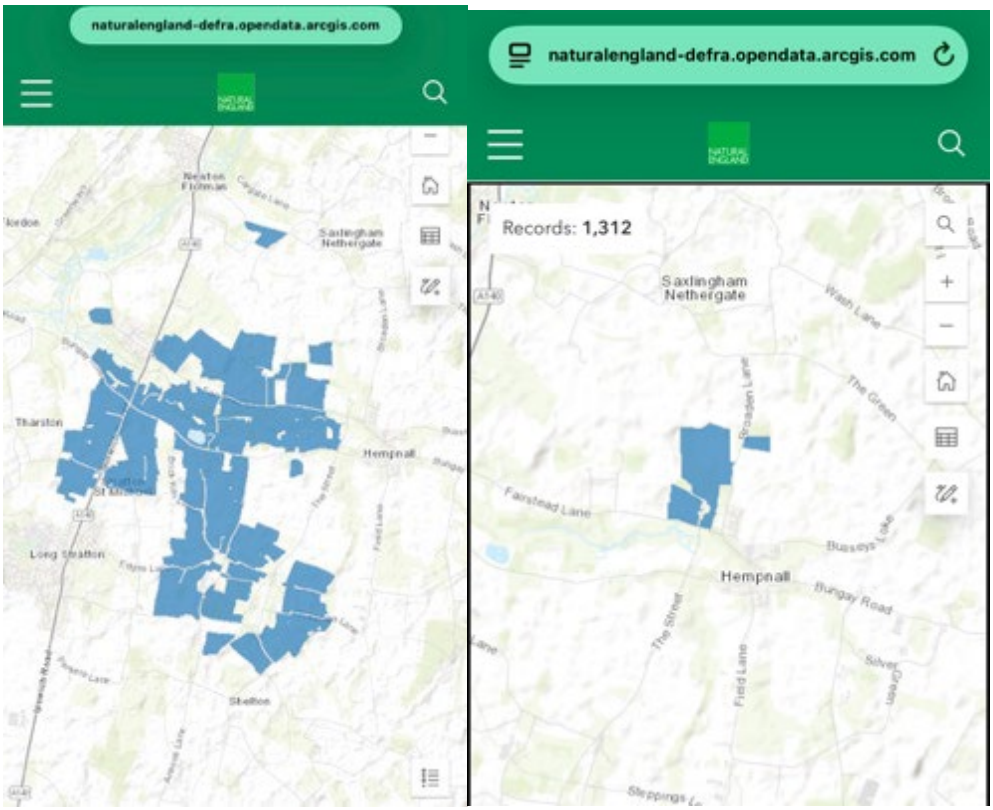
The stewardship evidence is particularly relevant to skylark, lapwing and turtle dove because those species depend upon different elements of the managed farmland mosaic.

For skylark, the direct territory evidence is compelling. The agreements have maintained open arable conditions and associated margins over a prolonged period, and the Applicant has recorded breeding territories throughout the affected fields. The present population is therefore part of the existing baseline, regardless of whether the specific agreement option was labelled expressly as a skylark option.

For lapwing, the Applicant did not confirm breeding during its survey, but the stewardship targeting remains material. Site 7 was identified by BEPS through Defra's MAGIC mapping as priority land for lapwing stewardship, and the Applicant's earlier design retained open cultivated areas expressly for nesting birds. The management has maintained the potential for use in years when crop, moisture and seasonal conditions are suitable. Removing that open-land function eliminates future opportunity even if no pair was mapped during one survey programme.

For turtle dove, the stewardship mosaic is relevant because nesting and feeding functions are spatially separate. Dense hedgerows and scrub provide potential nesting habitat, while lightly vegetated, seed-rich margins and plots provide feeding opportunities. The Applicant's desk study records demonstrate previous use of several Scheme sites, including records at Site 7L between 2004 and 2012. The appropriate response is to assess whether the stewardship landscape continues to retain or could restore those functions, not to treat the absence of a mapped 2024–2025 territory as proof that the land is irrelevant.

The three species therefore illustrate why stewardship land cannot be evaluated solely by broad habitat type. 'Cropland' under the biodiversity metric may encompass an intensively cultivated field with little edge habitat or a field managed with open nesting conditions, winter food, conservation margins and a decade of continuity. Those landscapes are not ecologically equivalent.



Land within the order limits currently in the Countryside Stewardship Scheme.

Records corroborate the purpose of the management

The stewardship evidence is supported by biological records. The Applicant confirmed extensive skylark breeding. It also recorded historical and comparatively recent turtle-dove records associated with individual Scheme parcels. Lapwing appears within the wider local species evidence and is specifically identified in the stewardship targeting relied upon by BEPS, although the Applicant did not confirm current breeding.

The correct evidential conclusion is therefore differentiated:

- the stewardship land demonstrably supports skylark breeding;
- it has a documented historic relationship with turtle dove;
- and it retains targeted potential for lapwing, notwithstanding the absence of breeding confirmation in the Applicant's survey year.

That combination is sufficient to require the stewardship history and management prescriptions to be incorporated into receptor valuation, impact assessment and mitigation design.

Accumulated habitat value since 2013

By the scheduled expiry in 2028, relevant agreements commencing around 2013 will have provided approximately 15 years of continuous agri-environment management.

The significance of that period is not that every ecological outcome can be attributed exclusively to the agreement. The importance lies in continuity. Field margins develop vegetation structure; seed resources are maintained across seasons; hedgerows and scrub mature; management patterns become predictable; and birds can return to established territories and feeding areas over successive years.

The Applicant has not provided an assessment of:

- the particular options applied to each affected field;
- how those options changed management from the previous baseline;
- the habitats created or retained;
- the species outcomes achieved;
- the public funding invested;
- or the ecological consequence of terminating the management.

Instead, Chapter 8 assumes that, without the Scheme, most of the land would remain under intensive crop rotation and might suffer continuing ecological decline. It refers to active stewardship schemes as finite and treats future retention of margins as dependent upon whatever agricultural policy exists later.

That future baseline is not adequately evidenced. The expiry of one agreement does not prove that the land would immediately revert to the most intensive possible management. A replacement environmental land-management agreement, voluntary continuation, revised stewardship scheme or other conservation management is equally possible. More fundamentally, the habitats and species present at expiry do not disappear automatically because a payment contract ends.

The Applicant has effectively compared the Scheme against an assumed degraded future rather than the actual managed baseline. That assumption inflates the claimed ecological benefit of ceasing intensive agriculture while failing to credit the environmental outcomes already being delivered.

The direct temporal conflict in 2028

The timing is particularly significant. The Applicant anticipates commencing construction in 2028, for approximately 24 months. That is the same period in which the identified stewardship agreements are expected to end.

The result would not be an environmentally neutral transition between two management regimes. The end of the stewardship commitment would coincide with site preparation, fencing, access works, cable construction, piling or foundation installation, panel erection and prolonged movement of machinery and personnel.

The immediate effects would include:

- cessation of stewardship cropping and margin prescriptions within construction areas;
- loss of open nesting fields beneath permanent infrastructure;
- disturbance of established breeding territories;

- removal or degradation of field-margin habitat;
- interruption of winter food provision;
- fragmentation of formerly connected areas;
- and displacement into surrounding farmland whose capacity is untested.

The ecological value accumulated under the agreements would not vanish on their contractual end date, but the management continuity supporting it would be broken immediately by construction. That discontinuity is a material impact of the Scheme and should have been assessed expressly.

Public investment cannot be disregarded

Agri-environment agreements represent public expenditure intended to secure environmental outcomes that ordinary agricultural markets may not provide. In this case, that investment has supported land forming part of a declining farmland-bird landscape for more than a decade.

BEPS does not submit that receipt of stewardship funding creates an absolute legal prohibition on later development. The relevant point is that the existing publicly funded environmental function is a material part of the ecological baseline and planning balance.

The Applicant should identify:

- which parcels have received funding;
- the duration and value of the agreements;
- the relevant management options;
- the habitats and species targeted;
- whether early termination or repayment is required;
- and what equivalent environmental outcome will be provided if the land is developed.

Without that information, the Examination cannot determine whether the Scheme is replacing existing environmental delivery or genuinely creating an additional benefit.

The present application instead treats the land as low-value cropland in the BNG calculation and then claims substantial gain from converting it to solar grassland and new margins. BEPS' review of the BNG material identifies this as a structural weakness: species such as skylark, lapwing and turtle dove respond to open sightlines, nesting structure, disturbance, food resources and continuity of management, none of which is represented adequately by the broad metric category 'cropland'.

A positive habitat-unit balance cannot compensate for the loss of a known breeding territory or prove that an operational solar layout will perform the same stewardship function.

The skylark mitigation does not replace the stewardship system

The Applicant's proposed skylark mitigation illustrates the problem.

It identifies 60 hectares within which at least 40 hectares of arable land would be managed rotationally with skylark plots. It also proposes areas of open grassland. But Chapter 8 expressly states that the plots are not nesting locations.

The mitigation therefore does not demonstrate like-for-like replacement of:

- the 70 territories within permanent development areas;
- the wider open-field context;
- established crop and margin relationships;
- winter food provision;
- or the multi-species stewardship mosaic.

No carrying-capacity model has been provided. There is no evidence that 40 hectares can support the displaced territories, and no secured ratio between lost territories and replacement nesting habitat. There is also no demonstration that the rotational area will remain in the most suitable location throughout construction and operation rather than being moved according to farming or engineering convenience.

The Applicant's conclusion of a beneficial effect depends principally on anticipated foraging improvements beneath panels. It nevertheless accepts that the developed fields will cease to function as nesting habitat. A claimed increase in one ecological function cannot be treated as automatic compensation for the loss of another.

Site 7 demonstrates the instability of the mitigation

The treatment of Site 7 further reduces confidence in the mitigation.

The earlier scheme design retained open cultivated areas at Sites 7D and 7F for habitat and nesting birds. During targeted consultation, the open area at 7D was reduced and an access was introduced into or through the remaining area. BEPS' representation records that this change was justified partly by decommissioning efficiency rather than by ornithological evidence.

This design evolution demonstrates that bird mitigation areas have been adjusted to meet engineering requirements without a published, updated territory-capacity assessment. It also raises a practical question: an area crossed by construction traffic or placed immediately beside an active access cannot be assumed to perform as undisturbed ground-nesting habitat.

Where mitigation is necessary to support the Applicant's no-significant-effect conclusion, its extent, location and management cannot remain vulnerable to later design optimisation. It must be fixed and protected through the DCO.

Loss is immediate; replacement is uncertain and delayed

The Applicant repeatedly relies upon future habitat creation and management. Those measures may benefit some birds, particularly boundary and scrub species, if delivered successfully. They do not prevent the immediate loss of existing open breeding and winter feeding functions.

There is a temporal difference between:

- an established field that already supports skylark territories;
- a hedge and margin system managed for more than a decade;
- and a proposed grassland or newly planted boundary whose eventual bird use is predicted but unproven.

The impact begins when stewardship management ceases and construction excludes or displaces birds. Replacement value, if achieved, develops later. The Environmental Statement does not quantify that temporal loss or explain how displaced birds will be supported during the establishment period.

Norfolk Wildlife Trust's request for species-specific mitigation, operational assessment and post-construction monitoring is therefore particularly important. Monitoring should not merely record whether birds use the general Scheme area. It should compare territory numbers, distribution and breeding success against the pre-construction baseline and trigger enforceable remedial action if the predicted outcome is not achieved.

Conclusion

The breeding- and wintering-bird evidence demonstrates that East Pye Solar would replace an already functioning farmland-bird landscape, not create ecological value upon neutral land.

The Applicant's own evidence establishes:

- 85 species recorded during breeding surveys;
- confirmed breeding by Red List linnet, skylark and yellowhammer;
- probable breeding by song thrush and other notable species;
- 81 skylark territories, including 70 within permanent development areas;
- multiple turtle-dove records associated with specific Scheme sites;
- priority bird territories concentrated in open fields, mature hedgerows, trees and margins;
- and the presence of active Countryside Stewardship on some fields.

Other submitted evidence establishes stewardship targeting relevant to skylark, lapwing and turtle dove; local records of a wider declining farmland-bird assemblage; and local reports of winter starling murmurations. The Applicant has not assessed the latter because wintering birds were scoped out.

BEPS submits that the Applicant has not demonstrated that:

- the breeding-bird assemblage is adequately valued;
- the operational effects on species other than skylark are negligible;
- 70 displaced skylark territories can be accommodated;
- skylark foraging plots replace nesting habitat;
- lapwing potential and stewardship targeting can be disregarded;
- turtle-dove records and habitat have been addressed by species-specific mitigation;
- wintering-bird use will improve rather than decline;

- or the publicly funded environmental function of the stewardship land will be replaced.

The following evidence and safeguards are therefore required before the close of Examination:

- The complete Appendix 8.4 survey data, territory maps and registrations for all notable species, including records falling outside confirmed territory clusters.
- A parcel-by-parcel reconciliation of Applicant, NBIS, NWT, BEPS and other local records for skylark, lapwing, turtle dove, yellowhammer, linnet, bullfinch, song thrush, reed bunting, reed warbler, corn bunting and starling.
- A wintering-bird assessment addressing stewardship fields, winter stubbles, regular feeding areas, local starling murmurations and movement between feeding and roosting locations.
- A full schedule of Environmental Stewardship and Countryside Stewardship land, including agreement dates, option codes, management prescriptions, target species, affected area and expected termination arrangements.
- A replacement-habitat and carrying-capacity assessment demonstrating how the 70 skylark territories within permanent development areas will be replaced, with nesting habitat distinguished from foraging provision.
- Fixed and protected open areas for ground-nesting birds, free from panels, fencing, access routes, compounds, regular disturbance and lighting.
- Species-specific strategies for lapwing and turtle dove, based upon current and historic use, stewardship targeting and annual variation in habitat suitability.
- Protection and enhancement of the particular hedgerows, margins, scrub, ditches and reedbeds associated with linnet, yellowhammer, song thrush, bullfinch, reed bunting and any recorded reed warbler.
- Construction phasing that ensures sufficient unaffected breeding and winter feeding habitat remains available throughout the works.
- Long-term independent monitoring of territory numbers, distribution and breeding success, with defined performance thresholds, reporting and enforceable adaptive-management measures.

Unless those matters are resolved, the Applicant's conclusion of negligible adverse effects and an overall beneficial operational outcome is not supported by the evidence. The Scheme would cause the immediate loss of established, publicly funded farmland-bird habitat at the point when long-running stewardship agreements end and construction is scheduled to begin. That loss should attract substantial adverse weight, and development parcels that cannot retain or replace their existing bird function should be removed from the Scheme.

write this section in full with evidence: 8.12 Other protected and priority species Keep this concise but complete: great crested newt; water vole; otter; badger; reptiles; brown hare; hedgehog; terrestrial and aquatic invertebrates; invasive species and biosecurity. For each, focus on the principal deficiency rather than repeating the entire ES. 8.13 Construction-phase ecological effects Bring all construction pathways together: road widening; haul roads; compounds; piling; trenching; HDD; watercourse crossings; vegetation removal; dust; noise; vibration; lighting; HGV movement; soil compaction; contamination; accidental spills. This section should expose the mismatch between the full construction footprint and the narrower habitat-loss calculations.

8.12 Other protected and priority species

The principal protected-species issues arising from East Pye Solar are addressed elsewhere in this Chapter in relation to bats, birds and white-clawed crayfish. The Scheme also affects a wider assemblage of protected and priority species associated with its ponds, hedgerows, ditches, watercourses, woodland edges, grassland margins, scrub and open farmland.

The application does not lack all survey information for these species. The more fundamental problem is that the Applicant repeatedly concludes that effects will be negligible by relying upon broad habitat retention, standard buffers, future pre-construction checks and an Outline Protected Species Mitigation Strategy, notwithstanding that the detailed position of accesses, crossings, compounds, haul routes and other works remains subject to later design.

Natural England has not treated protected species as a resolved matter. Its Relevant Representation categorises protected species as an amber issue and records that the Applicant's Outline Protected Species Mitigation Strategy indicates that licences may be required for great crested newts, water vole or otter, roosting bats and badger-sett closures. Natural England strongly advises that the licensing position be addressed at the earliest opportunity.

That position is materially different from the Applicant's repeated conclusion that no additional mitigation and no residual effects are anticipated. The Examining Authority must be satisfied not merely that generic precautions could be devised later, but that the authorised development can be delivered within the proposed limits without committing offences, impairing priority-species populations or depending upon mitigation whose feasibility and licensing status remain unresolved.

Great crested newt

The Applicant has now established or assumed great crested newt presence in a significant number of ponds. Chapter 8 records six ponds with confirmed presence and six with assumed presence within the Order Limits, together with further relevant ponds in the surrounding landscape within 250 metres. It accepts that the more suitable terrestrial habitat comprises hedgerows, ditches, woodland edges and uncultivated field margins.

The principal deficiency is therefore no longer simply an absence of evidence that great crested newts occur. Presence is established. The issue is whether the full construction design and licensing strategy adequately respond to that presence.

The Applicant treats the arable field interiors as habitat of negligible importance and relies upon retention and buffering of the principal ponds and linear features. It concludes that construction effects will be negligible, that terrestrial and aquatic opportunities will be maintained or enhanced during construction, and that no additional mitigation or residual effect is expected.

That conclusion is insufficiently precautionary for three reasons.

First, the habitats that the Applicant identifies as most suitable for great crested newts are the same linear habitats repeatedly encountered by the construction works: hedgerows, ditches,

woodland edges and field margins. Cable routes, haul roads, accesses and highway works may require temporary removal, crossing, compaction, lighting or disturbance of those features. Physical retention of the majority of a hedgerow or margin does not demonstrate that terrestrial movement between breeding ponds, foraging habitat and hibernation sites will remain functional.

Secondly, the assessment treats the loss and later reinstatement of narrow habitat sections as short-term and reversible without demonstrating the effect of repeated severance across the complete pond network. An individual opening may be small, but several simultaneous or sequential openings may interrupt more than one dispersal route. The assessment does not provide a pond-by-pond map of:

- confirmed and assumed breeding status;
- terrestrial habitat within the relevant distance bands;
- likely connections between ponds;
- every cable, access and road crossing;
- the duration of each temporary barrier;
- or the cumulative effect of fencing, trenching and vegetation removal.

Thirdly, the licensing route remains unresolved. Natural England expressly records that a great crested newt licence may be required and retains the matter as amber. South Norfolk Council has also asked the Applicant to liaise with Natural England's district-level licensing delivery team to ensure that sufficient pond provision exists for East Pye and other development proposals.

The Applicant should therefore provide a definitive great crested newt strategy before the close of Examination. It should identify whether the Scheme will proceed through a conventional mitigation licence, district-level licensing or a combination of avoidance and licensing; demonstrate that the selected route covers the whole authorised footprint; and reconcile that route with the proposed pond buffers, cable crossings, highway works and construction phasing.

No works should be authorised within the functional terrestrial habitat of a confirmed or assumed pond unless the Applicant has demonstrated that the works are unavoidable, the licensing route is realistically available and the necessary habitat connectivity will be retained throughout construction.

Water vole and otter

The Applicant's water vole and otter surveys were undertaken in September 2025 and January 2026. No field signs were recorded within the Order Limits, and Chapter 8 therefore treats both species as currently absent. It nevertheless acknowledges potential injury, disturbance, fragmentation and habitat degradation within the wider Zone of Influence and relies upon 10-metre riverbank buffers, HDD and the Outline Protected Species Mitigation Strategy to address any colonisation before construction.

The principal deficiency is the conversion of a time-limited absence finding into a negligible-effect conclusion across a large, mobile and hydrologically connected system.

The Planning Inspectorate had expressly refused to scope these species out on the basis originally proposed. It found that water vole and otter are mobile, may range beyond a 10-metre watercourse buffer and, in the case of water vole, may occupy apparently suboptimal habitat. It required an assessment or survey-supported statement of absence. The Environment Agency made the same point.

The final survey work addresses part of that requirement, but it does not establish that the position will remain unchanged when construction begins. Chapter 8 itself accepts that future colonisation is possible. The Scheme crosses a large number of ditches and watercourses, and some crossing methods, launch and reception pits, temporary access structures and working areas remain dependent upon detailed design. A species absent from one reach during the survey period may occupy it before or during the construction programme, particularly where connected upstream and downstream habitat exists.

The Applicant's 10-metre buffer is also not a complete Zone of Influence. Noise, lighting, vibration, drainage changes, sediment, pollution and vehicle activity can extend beyond that distance. Otter may move overland between watercourses and ponds, while water vole may use smaller or seasonally active ditches which are not visually prominent during dry conditions.

Natural England's Relevant Representation records that a licence may be required for water vole or otter. The DCO must therefore secure:

1. current surveys before works commence at each watercourse or ditch;
2. a defined validity period for survey data;
3. species-specific triggers for further survey;
4. fixed exclusion distances based upon the activity and habitat rather than a universal 10 metres;
5. restrictions on night working and lighting along riparian corridors;
6. maintenance of dry and wet passage beneath temporary crossings;
7. and a clear stop-work and licensing procedure if either species is found.

Until the final crossing schedule, access arrangements and construction compounds are fixed, the Applicant cannot demonstrate that all potential riparian-mammal effects have been avoided.

Badger

The Applicant's surveys identified partially active setts at Site 5A, Site 7A and within Cable Route Corridor section 7. It estimates that up to six badger clans partially use habitats within the Order Limits.

Chapter 8 relies principally upon 30-metre sett buffers, retention of foraging and commuting habitat and the provision of gaps beneath security fencing. It accepts a short-term reduction in foraging habitat but compares the resulting disturbance with ordinary agricultural operations and concludes that no significant effect will occur.

The principal deficiency is that a fixed 30-metre buffer does not itself demonstrate that every potentially disturbing activity is acceptable. The ecological effect depends upon:

- whether the sett is a main, annex, subsidiary or outlier sett;
- the type and intensity of activity;
- pile-driving and vibration levels;
- night lighting;
- duration and season;
- the position of haul routes and compounds;
- and the availability of undisturbed alternative foraging and commuting habitat.

Agricultural cultivation is not an adequate analogue for construction of substations, extensive cable works, haul roads and solar arrays. The latter involves sustained noise, vehicle activity, fencing, excavation, compounds and permanent land-use change rather than intermittent farming operations.

Natural England records that badger-sett closure licences may be required. The final design should therefore identify, confidentially where necessary, the relationship between each sett and every permanent or temporary work. It should demonstrate that access, piling, trenching, lighting and storage can remain outside an activity-specific disturbance zone and that the Scheme will not isolate setts from essential foraging land.

Any sett closure necessary to accommodate the Scheme should be identified during Examination rather than arising unexpectedly during detailed design. The Examining Authority should also require a fixed fencing-permeability specification. Reliance on naturally occurring undulations or later provision of 'suitable' gaps does not ensure that badgers and smaller mammals will be able to move across every fenced parcel.

Widespread reptiles

The Applicant identifies the principal suitable reptile habitats as hedgerows, ditches, woodland edges, scrub, grassland margins and the Hempnall Beck corridor. It relies on seasonal working, Ecological Clerk of Works supervision and HDD at the most sensitive locations and concludes that construction effects will be negligible and that no additional mitigation is necessary.

The principal deficiency is that the reptile assessment is habitat-led and the species is included principally for legislative-compliance purposes rather than through a population assessment. The application does not identify the distribution or relative importance of reptile populations across the Order Limits.

That matters because construction activity is concentrated in the very habitat types identified as suitable. Vegetation clearance, hedgerow crossings, ditch works, field-margin stripping, soil storage and the movement of tracked plant may kill or injure animals sheltering in vegetation, rubble, roots, tussocks or hibernation features.

A generic method based on seasonal cutting and watching briefs cannot be assumed to work equally at every location. The final Protected Species Mitigation Strategy should classify each affected area by habitat suitability, specify the clearance method and season, identify where destructive search or displacement is necessary and prohibit clearance during unsuitable weather

or hibernation periods. Reptile protection must apply to highway works, cable compounds and temporary access areas, not merely the solar-array parcels.

Brown hare and hedgehog

The Applicant identifies field margins, hedgerows, ditches, permanent grassland, woodland edges, scrub, ponds, riparian corridors and lowland fen as suitable for brown hare, hedgehog, harvest mouse and polecat. It also accepts that open arable fields are regularly used by brown hare. Its desk study includes multiple brown-hare and hedgehog records, with recent hare records and historic hedgehog and harvest-mouse records within the Order Limits. Brown hare was repeatedly recorded during surveys undertaken between 2024 and 2026.

Despite that evidence, these priority mammals were scoped out of the substantive operational assessment. The Applicant treats the arable fields as generally negligible for priority mammals, even though it separately acknowledges regular use of those fields by brown hare.

That is the principal deficiency. Brown hare is an open-farmland species. Its habitat cannot be reduced to retained field boundaries. Conversion of extensive open fields to fenced solar arrays, access tracks, substations and compounds changes the structure, visibility and permeability of the habitat for the full operational period. The Applicant has not provided a population estimate, mapped regular hare use or assessed whether fencing and panel arrays will alter territorial, breeding or escape behaviour.

For hedgehog, the primary risks arise from trenching, vegetation clearance, construction traffic, open excavations and impermeable fencing. Retention of hedgerows does not prevent injury where animals move between those hedges and adjoining margins, gardens, ponds and woodland.

Norfolk Wildlife Trust identifies hedgehog and great crested newt as characteristic species of the Claylands landscape and emphasises the need for connected habitat rather than isolated enhancement areas. The final Scheme should therefore secure continuous small-mammal permeability across all fences, daily inspection and escape provisions for open excavations, restrictions on night-time vehicle movements, and a prohibition on uncovered trenches or pipes capable of trapping animals.

The effect upon brown hare should be reassessed as a permanent operational habitat effect, not merely a short-term construction issue.

Terrestrial and aquatic invertebrates

The Applicant considers the arable field interiors to be of negligible importance for terrestrial invertebrates and describes the semi-natural habitat as generally narrow, linear and fragmented. It relies upon retention and buffering of hedgerows, ditches, woodland edges, ponds, watercourses and grasslands and concludes that construction effects will not be significant. It accepts, however, that cable routes, haul routes, new accesses and highway works will affect hedgerows and field-boundary habitats and that construction dust and sediment deposition may degrade those features.

The principal terrestrial-invertebrate deficiency is the absence of a sufficiently detailed assessment of the margins and edge habitats that actually support the resource. Describing a habitat as narrow or fragmented does not make it ecologically unimportant. Those strips provide flowers, larval food plants, bare ground, litter, deadwood and overwintering habitat and supply prey for bats, birds, reptiles and other mammals.

The assessment also understates temporal loss. A hedge or grass margin reinstated after cable construction does not immediately regain its former floral structure, soil profile, litter layer or invertebrate community. The same applies to scrub, banks and ditch margins affected by access works.

For aquatic invertebrates, the Applicant accepts that diverse assemblages, including sensitive taxa, are likely in Hempnall Beck and its main tributaries. It nevertheless concludes that HDD, setbacks, pollution control and reinstatement reduce construction effects to negligible.

The Environment Agency does not consider the aquatic-invertebrate position fully resolved. It states that the potential attraction of aquatic insects to solar panels has not been assessed, creating a risk of life-cycle interruption, and that the wider watercourse buffers shown on the indicative masterplan are not securely carried into the controlling documents.

The Applicant should therefore provide:

- targeted survey where species-rich terrestrial or aquatic habitat is affected;
- full protection of larval food plants and overwintering habitat;
- a quantified assessment of temporary habitat time-lag;
- an assessment of polarised-light attraction to panels;
- and secured watercourse buffers based upon invertebrate function rather than a general 10-metre minimum.

These issues are relevant not only to invertebrates themselves but to the wider food web relied upon by bats, birds and fish.

Invasive species and biosecurity

The Applicant has recorded giant hogweed at five locations in Site 5A and Himalayan balsam in Site 9 and Cable Route Corridor section 7. It proposes avoidance, control and monitoring through the Protected Species Mitigation Strategy.

The Planning Inspectorate had refused to scope invasive non-native species out because the Applicant's original approach did not address the potential introduction of species not already present. The Environment Agency similarly warned that construction and decommissioning could introduce or spread invasive species and that the relevant measures had not been carried through consistently into the commitments.

The principal deficiency is therefore not recognition of the two mapped plants. It is the absence of a complete, route-wide biosecurity system covering:

- contaminated soil and vegetation;
- machinery and tracked plant;
- boots and hand tools;
- water pumps and hoses;
- imported topsoil and aggregate;
- movements between separate watercourses;
- and works undertaken by contractors arriving from other sites.

This is particularly important in the River Tas catchment because aquatic biosecurity must prevent the spread of signal crayfish, crayfish plague and other aquatic invasive organisms, as addressed in Section 8.9.

The final management plan should map all known invasive-species stands, establish exclusion zones, specify treatment and disposal methods, prohibit unauthorised movement of affected soils, require inspection of imported material and secure Check–Clean–Dry procedures for all equipment used in or near water.

Because the Scheme would operate across numerous geographically separated work fronts, biosecurity must be enforced between parts of East Pye as well as between the Scheme and external sites. A general commitment to legislative compliance does not provide that operational control.

Conclusion on other protected and priority species

The evidence does not support the treatment of these species as a collection of minor issues capable of being dealt with solely by toolbox talks and pre-construction checks.

The application confirms:

- great crested newt presence or assumed presence in 12 ponds within the Order Limits;
- watercourses capable of future occupation by water vole and otter;
- several active or partly active badger setts and up to six badger clans;
- reptile habitat along the same boundaries and watercourses crossed by construction;
- repeated brown-hare use of open fields;
- priority-mammal habitat throughout margins, scrub, ponds and riparian corridors;
- diverse aquatic-invertebrate habitat;
- and established invasive plants within the working area.

Natural England retains protected species as an amber issue and identifies unresolved potential licensing requirements.

BEPS therefore submits that the Applicant should provide a final, integrated Protected Species Mitigation Strategy during the Examination. It should be based upon the maximum construction footprint, final access and crossing schedule, valid survey data, identified licensing routes and species-specific monitoring. Where the final design cannot avoid protected-species habitat or cannot demonstrate a realistic licensing pathway, the relevant works must be removed or relocated.

8.13 Construction-phase ecological effects

The construction phase is the point at which the greatest number of ecological pathways operate simultaneously. It includes far more than the land directly occupied by panels, substations and cable trenches. The authorised works encompass highway alterations, new accesses, visibility splays, haul roads, temporary compounds, laydown areas, cable working strips, HDD pits, soil storage, watercourse crossings, piling, drainage, temporary fencing, lighting and extensive vehicle movements.

The Applicant's ecological assessment nevertheless frequently measures habitat effects by reference to the narrow area directly removed. A hedgerow crossing is described as a section of up to 10 metres; a ditch crossing is compared with the total length of the ditch network; and temporary habitat is assumed to be reinstated. Chapter 8 expressly describes repeated temporary hedgerow removals of typically up to 10 metres as proportionately very small and relies upon future replacement planting and BNG.

That approach does not capture the full construction footprint or the Zone of Influence around it.

A 10-metre hedge opening may require a substantially wider vehicle approach, swept path, visibility splay, working area and soil-storage zone. A seven-metre cable trench operates within a construction corridor normally 25 metres wide and capable of being widened further at road, watercourse and utility crossings. An HDD crossing requires launch and reception pits of up to 25 metres by 25 metres, together with plant, access, drilling-fluid storage and monitoring.

The ecological assessment must therefore address the complete maximum construction envelope and the indirect effects extending beyond it. It cannot lawfully or scientifically reduce construction harm to the sum of the habitat polygons physically excavated.

8.13.1 The construction footprint is materially wider than the permanent footprint

Chapter 4 confirms that the authorised development includes temporary construction and decommissioning compounds, access and tunnelling areas for the cable works, construction and decommissioning laydown areas, temporary alterations to streets and highways and off-site works beside highway land.

The cable works alone may involve:

- trenches up to seven metres wide and two metres deep;
- a standard 25-metre construction working width, widened where crossings or other operations require it;
- trenchless bores potentially reaching 12 metres below ground;
- HDD pits up to 25 metres by 25 metres;
- joint bays with excavations approximately 20 metres by seven metres and three metres deep;
- haul and access routes;
- soil-storage areas;
- and temporary compounds and laydown land.

The main sites require land preparation, localised levelling, perimeter fencing, construction laydown areas, internal roads, site entrances, delivery-holding areas, compounds, vegetation clearance and highway modification.

Temporary compounds would contain hardstanding, vehicle parking, workshops, security fencing and lighting, material and equipment storage, drainage and waste infrastructure and utility connections. They are not ecologically neutral simply because they are temporary.

The distinction between permanent and temporary land take is relevant to duration and restoration, but it does not determine whether an effect occurs. Temporary works may kill protected species, sever habitat during a critical breeding season, compact soils, alter drainage, spread invasive plants or cause a pollution incident. Some effects may persist long after the compound or track has been removed.

The assessment should therefore provide a construction land-budget identifying the maximum area of:

- vegetation clearance;
- topsoil stripping;
- hardstanding;
- haul and access roads;
- compounds and laydown;
- trenches and pits;
- spoil storage;
- watercourse crossings;
- highway works;
- and temporary lighting.

That land-budget should be reconciled with the ecological habitat-loss tables and BNG baseline. No equivalent scheme-wide reconciliation is presently apparent.

8.13.2 Road widening, accesses and HGV movements

The Applicant proposes to use existing accesses where practicable, but Chapter 4 confirms that new accesses may be constructed and that localised hedgerow removal may be required for access and visibility splays. New internal tracks may be up to six metres wide. Accesses are designed for articulated HGVs, while abnormal indivisible loads may include transformers and cable drums.

Highway and access effects extend beyond the vegetation directly removed. They may include:

- hedge and tree pruning for horizontal and vertical clearance;
- verge overrun;
- soil compaction;
- bank and ditch damage;
- dust deposition;
- vehicle lighting;

- repeated noise and visual disturbance;
- fuel or hydraulic-fluid leakage;
- and mortality of animals crossing the road or sheltering in vegetation.

The Cable Route Corridor alone is forecast to generate an average of 15 HGV arrivals each day and a peak of 33 arrivals, equivalent to 66 HGV movements, together with up to 60 daily car, light-vehicle and shuttle movements associated with the compounds. Those figures demonstrate that the construction impact is not comparable to a single agricultural vehicle passing intermittently through a field.

The effect is particularly significant on narrow rural lanes, where large vehicles may overrun verges, pass close to hedgerows and veteran trees and require temporary traffic controls or road alteration. The biological receptors include rare roadside plants, nesting birds, hedgehog, badger, amphibians, reptiles and invertebrates, as well as the hedgerow and ditch network itself.

The assessment should identify the complete swept path and ecological clearance envelope for every HGV and abnormal-load route. It is insufficient to map only the finished access width or the vegetation formally scheduled for removal.

Where a route cannot accommodate the construction traffic without loss, compaction or repeated disturbance of important habitat, the route should be changed. Traffic management and smaller delivery vehicles should be considered before vegetation removal or road widening.

8.13.3 Haul roads and temporary access tracks

Haul roads produce a linear construction effect separate from the final infrastructure. They concentrate repeated heavy vehicle movement across fields and between compounds, cable works and array areas.

The ecological pathways include:

- removal or covering of vegetation;
- soil compaction and rutting;
- fragmentation of terrestrial habitat;
- entrapment or mortality of small animals;
- noise and vibration;
- dust;
- altered runoff;
- and repeated severance at hedges, ditches and watercourses.

The Applicant frequently describes temporary crossings as only a small proportion of the total feature. For example, Chapter 8 treats ditch intersections of up to 10 metres as proportionately very small compared with the whole ditch network. It also leaves the type of temporary access ramp—including structures with in-channel supports or closed culverts—to detailed design.

That comparison is ecologically incomplete. The significance of a crossing depends upon its position and function, not simply the percentage of total ditch length affected. A short crossing may:

- sever the only connection between two habitat areas;
- obstruct fish or mammal passage;
- remove a water-vole burrow;
- introduce sediment into a whole downstream network;
- or interrupt a bat and bird corridor.

The haul-road assessment must therefore be receptor-led. Each crossing should be fixed, surveyed and justified before consent. Clear-span solutions should be preferred where watercourse crossings cannot be avoided, and temporary culverts should not remain an open design option in sensitive habitat.

8.13.4 Construction compounds and laydown areas

Construction compounds would contain hardstanding, parking, offices, workshops, fencing, lighting, material storage, drainage and waste facilities. These uses introduce a concentration of ecological risk that cannot be represented by the compound's direct land-take area alone.

Potential effects include:

- displacement of birds and mammals;
- continuous or repeated lighting;
- noise from generators, plant and vehicle activity;
- polluted runoff;
- spills during refuelling and maintenance;
- compaction beyond the hardstanding edge;
- dust and mud deposition;
- and spread of invasive species through stored soil and machinery.

The Applicant states that land is required within the Cable Route Corridor for access, temporary compounds and laydown areas and that indicative compound locations are shown in its figures. Where locations remain indicative, the Environmental Statement must assess the worst environmentally permissible position. It cannot assume that detailed design will select the least harmful location unless that outcome is secured.

All compounds should be fixed outside:

1. protected-species buffers;
2. ancient woodland and veteran-tree zones;
3. bat flight lines;
4. breeding-bird territories;
5. species-rich verges and meadows;
6. ponds and great crested newt terrestrial habitat;
7. watercourse and wetland zones;

8. and hydrologically sensitive or flood-prone land.

A minimum numerical stand-off should not displace the need to assess noise, lighting, drainage and access pathways extending beyond the compound boundary.

8.13.5 Piling and deep foundations

Solar mounting structures may be driven into the ground to a maximum depth of four metres. The BESS and some substation foundations may use piles extending to a maximum depth of 12 metres.

The ecological effects include more than the small surface area occupied by each pile. Repeated installation across extensive arrays may generate:

- percussive noise;
- ground-borne vibration;
- disturbance of breeding, roosting and hibernating fauna;
- compaction by piling rigs;
- risk to tree roots;
- mobilisation of contamination;
- and new pathways between shallow and deeper groundwater.

These pathways are particularly important close to ancient woodland, bat maternity and hibernation habitat, ponds, wetland, groundwater-dependent habitats and the chalk-stream system.

Norfolk Wildlife Trust advised that noise and vibration from cable and other works should be kept away from woods supporting bat maternity colonies and that such work should be avoided during the maternity period. South Norfolk Council's Environmental Management Officer objected at consultation stage to percussive piling and advised that screw piles should be advanced as the preferred installation method.

The Environment Agency's Relevant Representation also states that further work is required on the effect of piling and deep foundations upon the aquifer. It identifies the lack of adequate maximum design information for certain substations as preventing a complete groundwater assessment.

The Applicant should therefore provide an ecological piling schedule showing:

- the maximum number and depth of piles by parcel;
- the proposed installation method;
- proximity to woodland, ponds, watercourses, roosts and setts;
- predicted noise and vibration;
- groundwater interaction;
- and seasonal restrictions.

The ecological assessment should adopt percussive pile driving as the worst case wherever the DCO retains that option. It cannot rely upon the possibility that a quieter method may be selected later.

8.13.6 Trenching and cable installation

Open-cut cable installation is not represented adequately by the seven-metre trench alone. Chapter 4 specifies a standard 25-metre construction width capable of being widened at roads, watercourses, utilities and other constraints. It includes fencing, plant movement, separate storage of soils, drainage and access beside the excavation.

The ecological effects may include:

- complete removal of vegetation within the working strip;
- severance of hedges and ditches;
- destruction of refuges and hibernation sites;
- compaction of adjoining habitat;
- entrapment of amphibians, reptiles and mammals;
- altered groundwater and drainage;
- mixing of topsoil and subsoil;
- spread of invasive plants;
- and delayed recovery after reinstatement.

Spoil generated by trenches, compounds, tracks and substations would be stored beside the cable route and within compounds before being used for backfilling and reinstatement. The storage footprint and duration must therefore be included in the habitat-loss calculation.

The Applicant assumes that reinstatement makes most cable effects short-term and reversible. That assumption is not demonstrated for mature hedgerows, species-rich grassland, ditch banks, wetland soils or long-established field margins. Reinstated soil may differ in structure, drainage, fertility and seed-bank distribution, while replanted hedges may require years or decades to recover equivalent ecological function.

The effect calculation should therefore include the period between clearance and demonstrated ecological recovery. A habitat should not be treated as fully restored merely because the trench has been filled and grass has been sown.

8.13.7 Horizontal directional drilling

HDD can avoid direct excavation of the habitat above the bore. It is nevertheless a substantial construction operation.

The Applicant's maximum parameters permit individual bores to reach 12 metres below ground and require launch and reception pits of up to 25 metres by 25 metres. The pits may be only 10 metres from a watercourse, ditch or hedgerow and 30 metres from a County Wildlife Site.

The ecological pathways include:

- excavation and drainage of pits;
- noise, vibration and lighting;
- plant and vehicle access;
- drilling-fluid storage and handling;
- inadvertent drilling-fluid return or frac-out;
- interception of groundwater;
- mobilisation of contamination;
- and runoff from the working compound.

The use of HDD beneath a receptor does not establish that the receptor has been avoided where launch and reception compounds remain close to it or where the bore may affect groundwater or the hyporheic zone. This is especially important at Hempnall Beck, Fritton Grange Meadows, Lower Spring Wood and other sensitive crossings.

The Outline Protected Species Mitigation Strategy provides for Ecological Clerk of Works monitoring during HDD beneath Hempnall Beck, but the detailed strategy and task-specific methods remain for later approval.

Before consent, the Applicant should identify every HDD crossing and provide:

- fixed pit and compound locations;
- bore profile and depth;
- geology and groundwater information;
- drilling-fluid composition and volume;
- frac-out risk;
- lighting and working-hour assumptions;
- access and spoil arrangements;
- and receptor-specific emergency procedures.

Where those matters remain variable, the assessment should adopt the environmentally worst permissible configuration.

8.13.8 Watercourse and ditch crossings

The Scheme requires numerous interactions with watercourses, ordinary ditches and field-drain networks. Open-cut trenching is stated to be the primary crossing technique for roads, tracks, utilities and watercourses, with trenchless techniques used at selected locations.

Potential ecological effects include:

- direct bed and bank loss;
- sediment release;
- turbidity;
- interruption of flow;
- obstruction of fish and invertebrate movement;
- removal of riparian vegetation;
- pollution;

- and spread of disease or invasive species.

A ditch that is dry during construction may still function during wetter conditions as a route for water, species and pollutants. Its ecological value cannot be determined only by the presence or absence of water on the day works commence.

The Environment Agency objects to new culverts and seeks clear-span bridges where crossings cannot be avoided. It also states that the location and design of temporary main-river works remain insufficiently defined and that flood and environmental risks may not be adequately controlled.

Every watercourse and ditch crossing should therefore be listed in a final crossing schedule before consent, with the method, working width, duration, access, season and protected-species constraints identified. The current proposal to finalise crossing methods through later detailed design leaves the ecological effect uncertain.

8.13.9 Vegetation removal and repeated habitat severance

The Applicant's assessment places substantial weight upon the retention of most hedgerows and other linear habitats. It acknowledges, however, that temporary hedge removals of up to 10 metres will occur throughout the Order Limits for the cable corridor, haul roads and accesses. A final crossing schedule is deferred to each stage of construction.

The issue is not one isolated opening. It is the repeated interruption of a connected network.

Each opening may cause:

- direct habitat loss;
- loss of nesting and shelter;
- interruption of bat, bird, amphibian and mammal movement;
- increased light penetration;
- changes to wind and microclimate;
- removal of bank and ground flora;
- and a period of ecological non-equivalence after replanting.

A newly planted hedge is not immediately capable of replacing a mature boundary. Nor does a quantitative BNG gain elsewhere maintain the function of the particular route severed during construction.

The Applicant should identify the total number and length of temporary and permanent gaps, their duration, the species functions affected and the time required for reinstated vegetation to become equivalent. The habitat-loss calculation should include the ecological time lag rather than recording the feature as simply retained or reinstated.

Construction phasing must also prevent simultaneous severance of alternative routes used by the same species population. That requires a scheme-wide connectivity plan rather than separate method statements prepared for individual work fronts.

8.13.10 Dust

Dust may arise from vegetation clearance, soil stripping, trenching, haul roads, compounds, stockpiles and vehicle movements. Chapter 8 accepts that construction dust and sediment deposition may degrade woodland edges, hedgerows, ditches and watercourses but concludes that the Outline CEMP will prevent significant effects.

The physical footprint of dust is not limited to the land disturbed. It may settle on:

- leaves and flowers;
- lichen and bryophytes;
- aquatic and marginal vegetation;
- invertebrate habitat;
- ponds and watercourses;
- and adjoining designated or priority habitat.

The risk depends upon soil type, weather, wind direction, activity and duration. A generic commitment to damping and good practice does not establish the deposition level at each receptor.

The assessment should identify the most dust-generating works near ancient woodland, species-rich verges, ponds, lowland meadow and watercourses and set receptor-specific monitoring and stop-work thresholds. Dust generated by highway and haul-road traffic outside the principal panel parcels must be included.

8.13.11 Noise and vibration

Construction noise and vibration arise from piling, excavation, HDD, generators, HGVs, cranes and other plant. Their effects extend beyond the area of direct habitat loss.

Potentially sensitive receptors include:

- breeding and wintering birds;
- bat maternity and hibernation sites;
- badger setts;
- otter resting and commuting habitat;
- fish;
- reptiles and amphibians;
- and woodland fauna.

The Applicant often treats construction as progressive and therefore less likely to affect the whole Scheme simultaneously. That may reduce one form of impact but does not establish that a particular population will always retain an unaffected alternative habitat. Progressive works may expose the same connected population to a sequence of disturbances across successive locations.

Noise and vibration limits should therefore be ecological as well as residential. The final CEMP should include receptor-specific exclusion distances, seasonal restrictions and monitoring at bat woods, setts, breeding-bird habitat, hibernacula and sensitive watercourses.

8.13.12 Construction lighting

Temporary lighting would be used during construction, including mobile lighting towers and lighting at compounds. The Applicant proposes directional fittings and inward orientation to reduce spill.

Those controls are useful but do not demonstrate that dark ecological corridors will be maintained. Light may arise from:

- compounds;
- vehicle headlights;
- emergency work;
- HDD operations;
- security requirements;
- and winter working within permitted hours of darkness.

The East Pye landscape supports nationally important bat activity and numerous nocturnal species. A directional light can still affect a hedge, woodland edge, pond or watercourse where the source is close or where reflected light is significant.

The final lighting design should map all temporary and mobile sources, specify horizontal and vertical illuminance limits and secure zero or very low spill on designated dark corridors. Temporary lighting should not be permitted within or facing woodland, hedgerow, pond, watercourse or known roost and sett buffers without prior ecological approval.

8.13.13 Soil compaction and habitat degradation

Heavy construction traffic, compounds, tracks, piling rigs and soil storage may compact ground beyond the directly excavated footprint. The effect may alter:

- infiltration and runoff;
- soil oxygen and root growth;
- plant communities;
- pond and ditch hydrology;
- and the future success of habitat reinstatement.

Compaction is especially important on the Scheme's clay-rich and seasonally wet soils. Damage may be difficult to reverse once soil is trafficked in unsuitable moisture conditions.

For ecology, the consequence is not limited to agricultural productivity. Compacted field margins and woodland edges may lose botanical and invertebrate value; compacted ground around ponds may alter amphibian terrestrial habitat; and changes in runoff may transport sediment into ditches and streams.

The construction footprint should therefore include the complete area liable to plant trafficking, manoeuvring and overrun. It should not be limited to the surfaced track or trench line shown on a plan.

8.13.14 Contamination and accidental spills

The Applicant proposes bunded fuel storage, spill kits and worker training. Those measures reduce risk but do not remove the source–pathway–receptor relationship.

Construction involves fuel, oils, hydraulic fluids, cementitious materials, drilling fluids, waste water and contaminated spoil across numerous dispersed work fronts. A release may reach ponds, ditches, watercourses, groundwater, private supplies or designated habitats through surface runoff, field drains or cable trenches.

The Environment Agency considers the pollution-control position incomplete. Its Relevant Representation states that water-quality monitoring and the outline management plans require further development, that the effects of temporary works remain unclear and that certain preliminary works are not currently covered by the CEMP, creating an unmitigated pollution risk.

That last point is particularly important. Environmental control cannot begin only when formal 'commencement' occurs if preliminary remediation, investigation, vegetation clearance or other enabling work is capable of causing ecological harm.

The draft DCO should therefore be amended so that every intrusive or potentially polluting activity is subject to an approved environmental management plan. Emergency arrangements must identify downstream ecological receptors, notification procedures, containment equipment and stop-work authority.

8.13.15 The mismatch between the assessment and the authorised works

The cumulative effect of the matters above is a structural mismatch.

The ecological assessment often characterises the impact as:

- a short section of hedge;
- a small proportion of a ditch;
- a temporary strip of field margin;
- or negligible habitat loss within an arable field.

The authorised construction works include:

- 25-metre or wider cable working corridors;
- seven-metre-wide and two-metre-deep trenches;
- deep bores and 25-metre-square HDD pits;
- compounds with hardstanding, storage, lighting and drainage;
- six-metre access tracks;
- highway alterations and visibility splays;

- HGV and abnormal-load movements;
- extensive piling;
- spoil storage;
- temporary fencing;
- and indirect zones of dust, light, noise, vibration and runoff.

Those are not equivalent descriptions of the same footprint.

The Applicant's reliance on the Outline CEMP and Outline Protected Species Mitigation Strategy does not cure the discrepancy. Chapter 8 confirms that the detailed Protected Species Mitigation Strategy, method statements and work schedules will be approved later and need only be substantially in accordance with the outline document. Natural England retains protected species as amber, while the Environment Agency identifies continuing gaps in enforceability, pollution control and preliminary-work coverage.

The ecological effect must be assessed before mitigation is relied upon. It is not sufficient to authorise a broad worst-case engineering envelope and then assume that a future contractor will find a low-impact route through it.

8.13.16 Required construction assessment and controls

BEPS submits that the Applicant should provide a consolidated Construction Ecology Impact Schedule before the close of Examination. It should identify, for every construction element:

- the maximum permanent and temporary footprint;
- habitat type and condition;
- protected and priority species affected;
- direct and indirect Zone of Influence;
- timing and duration;
- recovery period;
- mitigation;
- monitoring;
- and residual effect.

The habitat-loss and BNG calculations should then be reconciled with that schedule. Habitat should not be treated as retained where it lies within a haul route, working width, compound influence zone, visibility splay or temporary lighting corridor. Temporary habitat should not be treated as immediately restored where equivalent ecological function will take years to recover.

The final design should also secure:

- fixed compound, access, haul-route, HDD and crossing locations;
- protection of all ecological buffers from plant, storage and manoeuvring;
- activity-specific seasonal restrictions;
- ecological noise, vibration, dust and lighting limits;
- an Ecological Clerk of Works with authority to stop work;
- species-specific pre-commencement surveys with defined validity periods;

- daily inspection and escape measures for excavations;
- route-wide invasive-species and biosecurity controls;
- surface-water and groundwater monitoring;
- and enforceable incident-response and habitat-restoration requirements.

No preliminary, enabling or remediation works capable of causing ecological harm should fall outside those controls.

Conclusion

The Applicant has not demonstrated that the ecological effect of construction is limited to the relatively narrow habitat losses quantified in Chapter 8.

The Scheme's real construction footprint comprises an extensive network of intrusive and disruptive works whose effects extend beyond the trench, pile, access or compound boundary. Road widening, haul routes, HDD, piling, vegetation removal, lighting, HGV traffic, soil compaction, dust, pollution and accidental events operate cumulatively across the same connected landscape.

The assessment repeatedly relies on the propositions that the works are temporary, each individual loss is small and reinstatement or future BNG will restore ecological value. Those propositions do not address the number of interventions, the indirect zones of effect, the loss of connectivity, the establishment time for replacement habitat or the possibility of irreversible harm to protected species and sensitive aquatic receptors.

BEPS therefore submits that the construction conclusions in Chapter 8 should not be accepted until the habitat calculations have been reconciled with the complete maximum construction footprint and all necessary avoidance and mitigation have been fixed and secured. Where the full footprint cannot be constructed without significant harm, the relevant parcel, access, crossing, compound or cable alignment should be removed or redesigned.

8.14 Operational, replacement and decommissioning effects

The Applicant's ecological case cannot be assessed by considering construction alone and then treating the following 60 years as a largely passive period. East Pye Solar would be a long-duration energy installation comprising solar arrays, a BESS, substations, buried cables, access tracks, security fencing, drainage infrastructure and associated operational equipment distributed across a large rural landscape. During that period, components would require maintenance and replacement, while the habitats created or enhanced under the Outline Landscape and Ecology Management Plan would mature and potentially become increasingly valuable.

The Applicant's original Scoping Report recognised that ecological effects may occur during operation, particularly during panel replacement, and during decommissioning. It identified potential disturbance, displacement or mortality of wildlife; damage to breeding, hibernation and resting sites; noise and visual disturbance; dust and other pollutants; vibration; surface-water runoff; and plant and vehicle movements during those phases.

The application nevertheless relies heavily upon the proposition that replacement and decommissioning effects will be similar to, but less extensive than, the original construction effects and can therefore be controlled through later environmental management plans. The application also relies upon substantial habitat creation and enhancement to support its conclusions of ecological acceptability and claimed BNG gains. Those positions are not reconciled adequately.

By the time replacement or decommissioning occurs, the ecological baseline will no longer be the predominantly agricultural landscape surveyed for the application. Grasslands, hedgerows, scrub, woodland belts, ponds and riparian habitats established as mitigation or BNG may have matured for several decades. They may support protected species, priority species and established ecological networks. The later works may therefore affect habitats and species of materially greater value than the land initially occupied during construction.

The whole-life issue is consequently whether the application secures:

1. ecological protection throughout the 60-year operational period;
2. adequate assessment and control of repeated replacement works;
3. retention and protection of habitats during decommissioning;
4. a clear ecological end-state after decommissioning;
5. and sufficient legal and financial mechanisms to ensure those obligations are fulfilled by the project operator and any successor.

On the current evidence, it does not.

8.14.1 Sixty-year industrial use

The Applicant proposes an operational period of up to 60 years. South Norfolk Council described the proposal at consultation as a development extending across approximately 2,232 hectares at that stage, comprising multiple solar sites, the BESS, substations, the Cable Route Corridor and the National Grid infrastructure. Norfolk County Council similarly recorded that the project would operate for up to 60 years before decommissioning, except for the National Grid elements.

Revision 2 of Requirement 21 makes the temporal position more significant. It now expressly provides that the decommissioning date for each part of Work No. 1 may be calculated by reference to final commissioning ‘for that part’. The 60-year period is therefore capable of operating separately for different parts of the solar generating station rather than necessarily from one whole-Scheme date. That matters ecologically because different development parcels could remain operational, managed and physically fragmented for different periods. The Applicant should identify the maximum whole-Scheme duration permitted by this drafting and demonstrate that the ecological assessment, habitat-management obligations, monitoring and decommissioning assumptions cover that maximum temporal envelope. The duration is ecologically important for several reasons.

Long-term alteration of habitat function

For the full operational period, substantial areas would cease to function as open agricultural land and would instead contain rows of panels, conversion equipment, tracks, fencing and associated infrastructure. The ecological change is not confined to the physical footprint of the panel legs or equipment bases. It includes changes to:

- openness and visibility across fields;
- vegetation structure and management;
- solar exposure and shading;
- surface-water distribution;
- movement through fenced parcels;
- predator–prey relationships;
- field-boundary use;
- lighting and disturbance near electrical infrastructure;
- and the relationship between existing habitats and the land around them.

Those effects are relevant to the farmland-bird, bat, mammal, invertebrate and aquatic receptors addressed elsewhere in this Chapter.

For example, the Applicant accepts that solar development is expected to displace skylark from open-field nesting habitat. That is not a temporary construction effect: it would persist for as long as panels occupy those fields. Similarly, fencing permeability for badger, hedgehog, brown hare and other mammals is a whole-life requirement, not a one-off construction measure.

A comparatively low level of routine maintenance activity does not make the operational phase ecologically neutral. The ecological effect arises principally from the enduring land-use and habitat change rather than solely from the number of maintenance visits.

Accumulation of continuing effects

Effects which appear limited when assessed over one season may become material when repeated or maintained for six decades. Examples include:

1. repeated vegetation cutting;
2. continuing management of visibility and access;
3. disturbance around substations and the BESS;
4. recurring use of tracks beside ecological buffers;
5. operational lighting;
6. periodic drainage maintenance;
7. pruning where trees or hedgerows conflict with infrastructure;
8. and repeated localised repairs involving plant and vehicles.

The South Norfolk Tree Warden Network specifically raises the risk of future pressure to cut back retained trees because of shading, leaf or seed fall, sap, root growth, CCTV visibility or operational access. Its requested safeguards include a prohibition on operational cutting merely to manage the ordinary consequences of retained tree growth.

That concern illustrates the importance of duration. A layout that appears compatible with young or recently managed vegetation may become incompatible as trees, hedges and scrub mature. Unless sufficient mature-growth stand-offs are fixed now, the operational phase may generate continuing pressure to reduce the ecological value of retained vegetation.

Ecological maturation creates new receptors

The Applicant relies upon new and enhanced habitats to deliver mitigation, landscape screening, connectivity and BNG. Those habitats are expected to develop over the operational period. New hedgerows may become dense nesting habitat and bat commuting routes; grassland may acquire botanical and invertebrate value; scrub may support birds and mammals; ponds may be colonised by amphibians; and woodland belts may develop substantial root systems, canopy structure and deadwood.

The ecological baseline in year 30 or year 60 may therefore differ profoundly from the pre-construction baseline.

That creates an important assessment issue. Habitat initially described as proposed mitigation cannot subsequently be treated as expendable merely because it was not present when the DCO was granted. Once established, it may:

- support legally protected species;
- perform an essential mitigation function;
- form part of a connected ecological network;
- contribute to a designated-site buffer;
- or constitute habitat upon which the Applicant's BNG claim depends.

Any major operational or decommissioning works must therefore be assessed against the ecological conditions existing at the time, not solely against the original baseline.

Norfolk County Council advised at scoping that ecological surveys would need to remain up to date throughout the project design process and that regular survey might be necessary to ensure that data were no more than approximately 18 months old. It also expressly requested consideration of ecological impacts arising from upgrades to the solar farm and associated infrastructure and of the implications of decommissioning for BNG.

The need for updated evidence is considerably stronger where works may take place 15, 25, 40 or 60 years after the original surveys.

Operational effects remain disputed by regulators

The Environment Agency's Relevant Representation demonstrates that not all operational ecological effects have been resolved.

The Agency does not agree with the Applicant's conclusion that operational electromagnetic fields will not produce ecologically significant effects on freshwater fish. It requires evidence that cable

burial will reduce magnetic fields to below 12 microtesla at the watercourse bed because of potential effects upon European eel behaviour.

The Agency also considers that potential attraction of aquatic insects to polarised light reflected by panels has not been assessed and that wider watercourse buffers shown indicatively are not securely carried into the controlling documents.

It further states that insufficient evidence has been supplied to discount thermal effects from energised buried cables upon sensitive groundwater receptors, including groundwater-dependent terrestrial ecosystems.

These are operational effects extending potentially throughout the 60-year period. They cannot be characterised as insignificant merely because routine staffing levels are low.

The OLEMP does not secure an unchanging outcome

The BNG Report relies upon habitat creation and enhancement represented through the OLEMP. BEPS' review records claimed gains of 37.42% for habitats, 31.35% for hedgerows and 16.08% for watercourses. It also records that management and monitoring duration will be defined in the later LEMP and that the OLEMP does not fix a sufficiently complete long-term strategy for the functional ecological features upon which the Scheme relies.

Natural England welcomes the proposed gains in principle but advises that the BNG case should contain clearer success criteria, remedial triggers and long-term management responsibilities. That advice is significant because habitat creation is not secured merely by planting or seeding. It requires:

- establishment standards;
- management prescriptions;
- measurable condition targets;
- monitoring;
- remedial intervention;
- and continuing responsibility where the target is not reached.

Those matters must operate over a period long enough for the habitat to mature and for any failure to become apparent.

Conclusion on operational duration

The 60-year period should therefore be treated as a long-term ecological effect in its own right. It would encompass continuing land-use change, repeated management, habitat maturation, possible protected-species colonisation and changing relationships between the infrastructure and the vegetation around it.

The Applicant should be required to distinguish clearly between:

- habitats permanently protected throughout operation;

- habitats that may be altered for maintenance;
- replacement working areas;
- BNG and mitigation habitats;
- habitats around infrastructure that will remain after year 60;
- and habitats liable to removal or conversion at decommissioning.

Without that distinction, the assertion of long-term ecological benefit rests upon management flexibility that could also permit the habitats concerned to be disturbed or removed.

8.14.2 Panel and BESS replacement

Replacement of panels and batteries is not an exceptional or unforeseeable event. It is inherent in the Applicant's 60-year proposal.

The Applicant's Scoping Report states that photovoltaic panels were anticipated to have an approximate lifespan of 25–40 years and batteries a lifespan of 15–20 years. It therefore assumed that the panels could require replacement up to twice and the batteries up to four times during operation. The Applicant treated original construction as the worst-case replacement scenario and assumed that replacement effects would be materially lower.

The same Scoping Report confirms that occasional HGV access would be required for equipment replacement and that the permanent accesses would be designed to accommodate those vehicles.

The correct conclusion is therefore that East Pye may experience several substantial replacement programmes during its operational life. The question is not whether replacement will occur, but when, how frequently and over what area.

Replacement has construction-like characteristics

Panel and BESS replacement may require:

- HGV deliveries and removals;
- cranes and lifting equipment;
- temporary compounds and laydown areas;
- reopening of access routes;
- storage of new and redundant equipment;
- worker parking and welfare areas;
- temporary lighting;
- vegetation cutting for access and manoeuvring;
- noise, vibration and dust;
- soil compaction;
- pollution control;
- and removal and transport of large quantities of waste equipment.

The Applicant's own scoping evidence identifies disturbance or mortality of wildlife, damage to breeding, hibernation and resting sites, noise and visual disturbance, dust, pollution, vibration and runoff as potential effects during operational panel replacement.

The assertion that the effects will necessarily be lower than initial construction is not demonstrated merely by assuming that existing foundations and tracks can be reused. Replacement will occur in a different ecological environment.

By the time of the first major replacement cycle:

- new hedges may have matured;
- woodland belts may have substantial root-protection areas;
- scrub and grassland may support breeding birds;
- bat and bird boxes may be occupied;
- ponds may support great crested newts;
- access margins may support reptiles or invertebrates;
- and badger setts or other resting sites may have appeared.

A working area that was ecologically uncomplicated during the original construction phase may have become important habitat after 15, 25 or 40 years.

The replacement footprint is not defined

The application does not provide a final replacement logistics plan showing:

- which access routes will be used;
- whether all existing tracks will be suitable for future equipment;
- where cranes and delivery vehicles will stand;
- where batteries and panels will be stored;
- the maximum proportion of equipment replaced concurrently;
- the duration of each replacement campaign;
- or which created habitats lie within the necessary manoeuvring and working areas.

The absence of that information matters because the habitat plan may otherwise create vegetation across areas later needed for replacement. If those areas are kept permanently clear, the BNG and habitat calculations must reflect that constraint. If habitat is allowed to establish, its later removal or disturbance must be assessed.

The Scheme should not receive ecological credit for habitat created in land that is in reality reserved for repeated replacement access, compounds or storage.

BESS replacement presents additional risks

BESS replacement is likely to occur more frequently than whole-panel replacement under the Applicant's own lifespan assumptions. It may involve several cycles of disconnection, lifting, temporary storage and removal of battery containers and associated electrical or cooling equipment.

Those activities create distinct ecological and pollution risks, including:

1. leakage from damaged or degraded battery units;
2. fire or thermal-runaway incidents during handling;
3. contaminated runoff;
4. transport accidents;
5. damaged cooling systems;
6. emergency access and lighting;
7. and storage of hazardous or potentially contaminated equipment.

The Environment Agency has asked for substantially greater detail concerning emergency response and pollution prevention, including consultation with emergency services, the local authority and the Agency and notification procedures for downstream surface-water and groundwater abstractors. It notes that the oCEMP and oDEMP leave the Emergency Response Plan to detailed design.

A later operational replacement plan should not be permitted to provide a lower standard of ecological and pollution protection than the construction plan. The risk may be greater because ageing equipment is being handled within a mature habitat network.

Replacement of below-ground infrastructure is unclear

The Environment Agency identifies a further omission: the replacement programme does not specify the operational lifespan of the below-ground cabling. It states that deteriorating cables could release contaminants into the groundwater environment and asks the Applicant to confirm that the cable lifespan will at least match the operational phase.

If underground cables, ducts or joint bays require repair or replacement during the 60-year period, the ecological implications may include:

- reopening cable routes;
- excavation in established grassland;
- disturbance of hedges and watercourse crossings;
- renewed HDD or trenching;
- cutting through mature roots;
- groundwater disturbance;
- and new compounds and access routes.

The application does not establish that below-ground infrastructure will remain serviceable for the full project life without such works. The replacement assessment is therefore incomplete if it considers only panels and batteries.

Updated assessment must precede each replacement cycle

The solution cannot be limited to a pre-work protected-species check. Major replacement programmes should require a current ecological baseline and a dedicated Replacement Environmental Management Plan.

The updated baseline should cover:

- protected species;
- breeding and wintering birds where relevant;
- bats;
- badger;
- great crested newt;
- reptiles;
- water vole and otter;
- invasive species;
- mature trees and hedgerows;
- grassland and woodland condition;
- watercourses and ponds;
- and any habitat that has developed County or higher ecological importance.

The assessment must be undertaken early enough to alter the replacement design. A survey shortly before works that merely confirms the need for a licence does not apply the mitigation hierarchy.

The DCO should require each major replacement programme to:

- use existing hardstanding and tracks wherever ecologically acceptable;
- avoid all established BNG and mitigation habitat unless no feasible alternative exists;
- maintain all designated-site, woodland, tree, pond and watercourse buffers;
- update protected-species strategies and licences;
- secure seasonal restrictions;
- control light, noise, dust, runoff and contamination;
- provide Ecological Clerk of Works supervision;
- and restore any temporarily disturbed habitat to a defined condition.

Unless those requirements are fixed, repeated replacement is a foreseeable series of construction-like ecological effects that has not been adequately assessed.

8.14.3 Decommissioning damage to created habitats

The Applicant expects decommissioning to take approximately 12–24 months and to occur in phases. Its Scoping Report states that a DEMP would be prepared and approved before decommissioning. It proposes removal of the solar arrays, associated built infrastructure, substations and BESS, but anticipates that the National Grid substation will remain and that underground ducting may be left in situ. The Report also acknowledges a ‘high degree of uncertainty’ because law, policy, technology and engineering methods may change and states that land will be restored to its original use only ‘as far as reasonably practicable’.

Those qualifications are fundamental.

Decommissioning would not take place on the baseline agricultural land assessed before construction. It would take place after up to 60 years of habitat establishment and ecological

succession. The works could therefore damage the very habitats relied upon to justify the Scheme's ecological conclusions.

Likely decommissioning activities

Potential activities include:

- dismantling and removal of solar panels;
- removal or extraction of mounting piles;
- dismantling BESS and substation equipment;
- crane operations;
- removal of foundations;
- excavation around cables and joint bays;
- reopening access and haul routes;
- temporary compounds and waste-storage areas;
- HGV and abnormal-load movements;
- soil stripping, storage and reprofiling;
- vegetation removal;
- drainage works;
- lighting;
- refuelling and machinery maintenance;
- and reinstatement or conversion to agricultural land.

These activities create substantially the same ecological pathways as construction: direct habitat loss, noise, vibration, lighting, dust, pollution, compaction, disturbance and protected-species risk.

The Environment Agency has already identified detailed deficiencies in the oDEMP. It seeks consistent watercourse buffers, improved fuel and chemical storage requirements, contained wheel-wash facilities and further pollution controls.

That evidence demonstrates that the decommissioning controls are not presently complete even at outline level.

Which BNG habitats will remain?

South Norfolk Council raised this question directly.

The Council noted the Applicant's reference to 'linear terrestrial, riparian and aquatic habitats that will remain within the Site post-decommissioning' and requested a clear plan, potentially through a Biodiversity Net Gain Statement, showing which habitats would actually be retained. It also stated that semi-natural habitats created within the ancient-woodland buffers should remain after decommissioning.

This request has not been answered merely by saying that some habitat may remain. The application should identify, spatially and unambiguously:

- every habitat counted as BNG;
- every habitat relied upon as ecological mitigation;
- every compensatory habitat;
- ancient-woodland buffer habitat;
- veteran-tree buffer habitat;
- new woodland and scrub;
- species-rich grassland;
- hedgerows;
- ponds;
- riparian enhancements;
- and farmland-bird mitigation areas.

For each habitat, the Applicant must state whether it will:

- remain permanently;
- remain subject to continuing management;
- be disturbed temporarily during decommissioning;
- be removed;
- be returned to agricultural use;
- or be left to the choice of the relevant landowner.

Without that schedule, the claimed gains cannot be shown to be durable.

Which habitats will be disturbed by removal works?

The assessment should map the decommissioning footprint over the habitat layout at ecological maturity.

The central practical question is whether panels, BESS units, transformers, inverters, tracks and foundations can be removed without passing through or excavating:

1. established woodland belts;
2. mature scrub;
3. species-rich grassland;
4. mature hedgerows;
5. pond buffers;
6. riparian corridors;
7. dark bat corridors;
8. nesting-bird habitat;
9. or the root-protection areas of trees planted or retained during operation.

A habitat may not lie beneath the infrastructure yet still be damaged by the access required to remove it. Crane outriggers, turning areas, storage, vehicle overrun, soil stockpiles and temporary compounds may extend well beyond the equipment footprint.

The present documents do not provide a mature-habitat decommissioning layout demonstrating that the infrastructure is removable without such damage.

This is particularly important for woodland and hedgerow planting used as landscape screening. Planting may be positioned deliberately between the infrastructure and roads or settlements. That same planting may later obstruct access to the panels or electrical equipment. Unless access corridors are retained, decommissioning may require removal or severe cutting of vegetation that has matured for decades.

If access corridors are retained permanently, they should not be counted as undisturbed habitat. If they are planted, the Applicant must explain how decommissioning will occur without later habitat removal.

Agricultural restoration and BNG are in tension

The Applicant states that the land would be returned to its original use 'as far as reasonably practicable'. Its OLEMP is also understood to provide that, after decommissioning, landowners will determine the later use and management of their land and may return the land to arable cultivation, although some habitat areas may be left in situ.

That creates a direct conflict.

If all or most land is returned to arable use, then substantial grassland, scrub and other habitats relied upon in the BNG calculation may be lost. If those habitats remain, the land will not be restored fully to its former agricultural use. Both propositions cannot apply to the same area.

BEPS' Relevant Representation identifies this inconsistency. It records that the Outline DEMP allows some biodiversity mitigation and enhancement areas to remain while the majority of the sites may return to their original use, but does not identify:

- which habitats would survive;
- what proportion of the claimed biodiversity units would remain;
- or how retained habitats would be protected from excavation, backfilling, reprofiling and reseeding.

The problem is not resolved simply because the habitat may have been managed for a prescribed period by the time decommissioning occurs. The Applicant relies upon those habitats in the current EIA to:

- mitigate operational ecological effects;
- support connected ecological networks;
- provide replacement habitat;
- contribute to nature recovery;
- and justify a beneficial or neutral overall conclusion.

A habitat relied upon in that manner cannot be removed at the final project stage without the ecological consequences being assessed.

Some infrastructure would remain

The end-state is further complicated by the infrastructure that will or may remain.

The Applicant anticipates that the National Grid substation and underground ducting will remain. The Environment Agency records that cable removal may involve opening the ground at intervals and pulling the cable through extraction points while leaving ducts and joint bays in place. It asks the Applicant to assess the best practicable environmental option before decommissioning and to design now for possible future removal.

Norfolk County Council's Lead Local Flood Authority identifies additional uncertainty. It records that underground cables, access points, the National Grid substation, pylons, overhead lines and the sealing-end compound may remain and that some operational access tracks may be retained by later agreement with landowners. The LLFA concludes that elements not removed should be treated as permanent and states that the promise to restore the site 'as far as practicable' already indicates that complete restoration will not be achieved.

Permanent infrastructure creates continuing ecological requirements:

- future access;
- drainage;
- vegetation clearances;
- security;
- inspection;
- pollution control;
- and limitations on root growth or habitat management.

The Applicant must therefore show how habitats around retained infrastructure will be managed indefinitely and who will be responsible for that management once the solar and BESS project ends.

BNG must be recalculated against the true end-state

The application's BNG claim should not be treated as durable unless it is tested against the post-decommissioning habitat outcome.

The necessary analysis should show:

- the habitat units present immediately before decommissioning;
- the units temporarily damaged;
- the units permanently removed;
- the units retained after restoration;
- the effect of land returning to arable use;
- the effect of permanent infrastructure and tracks;
- and the habitat units restored or recreated following decommissioning.

The Environment Agency has already identified a mismatch between the BNG Report and the OLEMP concerning riparian enhancements. It states that management measures relied upon in the BNG Report are not carried consistently into the OLEMP and must be secured.

That existing inconsistency further reduces confidence that the much later decommissioning outcome is secured.

Required decommissioning habitat plan

Before consent, the Applicant should provide an outline Decommissioning Habitat Retention Plan showing:

- permanent retained habitat;
- habitat liable to decommissioning disturbance;
- routes for HGVs and cranes;
- compounds and waste areas;
- foundation and cable excavation areas;
- infrastructure to remain;
- and the intended post-decommissioning land use.

The final version should then be updated shortly before decommissioning against a current ecological baseline. It should not be permissible for the final DEMP to choose between wholesale agricultural restoration and habitat retention without reference to the ecological case on which consent was granted.

8.14.4 Absence of secure whole-life ecological protection

The application relies on a chain of future documents:

1. the detailed LEMP;
2. the OEMP;
3. the DEMP;
4. updated ecological surveys;
5. later Protected Species Mitigation Strategies;
6. task-specific method statements;
7. future licences;
8. and later restoration plans.

Some later updating is unavoidable for a 60-year project. It does not follow that ecological outcomes should be deferred.

The DCO must now secure the fixed principles and minimum outcomes against which future plans will be judged. Otherwise, the present EIA conclusions depend upon measures that may later be altered, weakened or found impracticable.

The Outline DEMP is not a complete whole-life mechanism

South Norfolk Council's Environmental Management Officer questioned the usefulness of attempting to specify detailed decommissioning methods now because methods would change substantially over 60 years and suggested that decommissioning should be secured properly through a DCO Requirement.

That is a sound distinction. The detailed machinery and waste-management methods may need to be determined later. However, the ecological outcomes must be fixed now, including:

- habitats that must remain;
- buffers that must not be infringed;
- survey and consultation requirements;
- protected-species safeguards;
- restoration standards;
- monitoring periods;
- and the financial mechanism ensuring delivery.

The July 2026 revisions do not resolve that financial issue. Requirement 21 has been amended in relation to decommissioning procedure and consultation, but no corresponding bond, escrow or other insolvency-protected financial mechanism has been introduced. A future DEMP can specify what restoration should occur; it does not demonstrate that sufficient funds will remain available to carry it out several decades later. Where ecological conclusions depend upon eventual habitat protection, restoration or remediation, that distinction remains material.

Natural England similarly advises that the 30-metre ancient-woodland and veteran-tree protection should be carried consistently through the LEMP, CEMP and DEMP. This confirms that essential ecological protections should not apply only to construction or operation.

The Environment Agency's Relevant Representation identifies multiple matters still requiring improvement within the oDEMP, including pollution prevention, material storage, wheel-wash containment, emergency response and cable end-of-life arrangements.

The oDEMP should therefore not be treated as demonstrating that decommissioning effects are already adequately controlled.

Future ecological surveys

All ecological surveys undertaken for the application will be obsolete long before replacement or decommissioning.

Before substantial replacement or decommissioning, the Applicant should be required to undertake a comprehensive updated baseline, including:

- UKHab and condition surveys;
- full botanical assessment where established grassland or verge habitat may be affected;

- tree and hedgerow surveys;
- bat activity and roost assessment;
- breeding-bird surveys;
- protected-mammal surveys;
- great crested newt assessment;
- reptile assessment;
- aquatic surveys;
- invasive-species mapping;
- and assessment of ecological connectivity.

Survey scope should reflect the habitats then present, rather than being confined to species recorded before construction.

The survey information must be provided sufficiently early to influence the method and layout. A pre-decommissioning walkover immediately before clearance would be inadequate where the proper ecological response is to change access, retain habitat or use a different removal technique.

Updated Protected Species Mitigation Strategies

The Applicant's Commitments Register, as reviewed by BEPS, relies upon pre-decommissioning surveys and an updated Protected Species Mitigation Strategy at the decommissioning stage. BEPS also notes that the Commitments Register expressly states that it is not itself a secured document and merely tracks commitments to other mechanisms.

An updated strategy is necessary but should not become a mechanism for authorising impacts that were not assessed at the DCO stage.

The DCO should require:

- avoidance before licensing;
- evidence of feasible alternative routes and working areas;
- current survey data;
- consultation with Natural England and the relevant local authorities;
- licences where necessary;
- seasonal restrictions;
- an Ecological Clerk of Works with stop-work powers;
- and replacement or compensation measures secured before harm occurs.

Where a habitat created under the Scheme has become occupied by a protected species, the Applicant should not be entitled to remove that habitat merely because its original purpose was mitigation or screening.

Restoration must be defined precisely

The application's commitment to return land to its original use 'as far as reasonably practicable' is not a defined ecological restoration standard.

‘Restoration’ may mean several different things:

- removing above-ground infrastructure;
- reinstating agricultural soils;
- returning land to arable cultivation;
- restoring habitat disturbed during decommissioning;
- retaining mature BNG habitat;
- or maintaining ecological buffers around permanent infrastructure.

The DCO should distinguish those outcomes spatially.

For habitat temporarily affected during decommissioning, restoration should mean return to at least the ecological condition existing immediately before the works, not simply reseeding to grass. This may require:

- replacement of mature hedgerows;
- restoration of species-rich grassland;
- protection of soil profiles and seed banks;
- replacement of scrub and woodland-edge functions;
- restoration of ponds or watercourse margins;
- and monitoring until equivalent condition is demonstrated.

For land intended to return to agriculture, the Applicant must state which existing ecological gains will be removed and provide an assessment of the resulting loss.

Successor liability

Norfolk Wildlife Trust’s Relevant Representation asks who will pay for decommissioning and whether the obligations will bind successor entities if Island Green Power no longer owns the Scheme in 60 years. It describes these as significant outstanding concerns.

That issue is directly relevant to ecological deliverability. Over six decades, the project may be sold, refinanced or transferred between operators. Land interests may also change. Ecological obligations must therefore bind:

1. the undertaker;
2. any transferee of DCO powers;
3. successor operators;
4. and, where relevant, landowners responsible for retained habitat.

There must be no separation under which one entity is required to remove the infrastructure while another controls the land containing the mitigation habitat, with neither bearing complete responsibility for restoration.

The DCO should require Secretary of State approval before transfer of relevant powers unless the transferee demonstrates the technical and financial capacity to discharge all ecological, decommissioning and restoration obligations.

No identified insolvency-proof financial security

The application materials reviewed by BEPS do not identify a decommissioning bond, escrow account, letter of credit, parent-company guarantee or equivalent ring-fenced provision covering the costs of decommissioning and environmental restoration.

BEPS' Relevant Representation notes that the security identified in the Funding Statement appears to concern compulsory-acquisition compensation rather than decommissioning, insolvency or restoration. It submits that the application contains no ring-fenced, insolvency-proof financial security for a project involving 60 years of operation, buried infrastructure, substations, a BESS, replacement cycles and substantial end-of-life liabilities.

BEPS' separate position note explains the risk: where a project company becomes insolvent, environmental and restoration liabilities do not disappear but may be transferred to landowners, regulators or the public purse. It proposes a DCO requirement for a ring-fenced and insolvency-protected bond, escrow or equivalent instrument sufficient to meet the full estimated costs, callable on default or insolvency, index-linked and reviewed at intervals no longer than five years.

That safeguard is relevant to ecology because habitat restoration and long-term management require funding. The necessary costs may include:

- protected-species surveys and licensing;
- ecological supervision;
- sensitive removal of infrastructure;
- protection of mature habitat;
- treatment of invasive species;
- soil and habitat restoration;
- replacement planting;
- water-quality controls;
- monitoring;
- and remedial work where restoration fails.

A DEMP without secured finance demonstrates an intended process, not that the process is deliverable in the event of insolvency, abandonment or default.

Minimum whole-life controls

BEPS submits that the following should be secured through the DCO:

- A Whole-Life Ecology and Habitat Retention Plan identifying all mitigation, compensation and BNG habitats, permanent buffers, replacement working areas and intended post-decommissioning land uses.
- A requirement that no substantial panel, BESS, transformer or cable replacement may begin without an approved Replacement Environmental Management Plan based on current ecological surveys.
- An approved updated Protected Species Mitigation Strategy before each major replacement programme and before decommissioning.

- A final Decommissioning Habitat Protection Plan based on the habitats and protected species present immediately before decommissioning.
- A fixed schedule of habitats to be retained permanently, including semi-natural habitats within ancient-woodland and veteran-tree buffers and any habitat necessary to maintain ecological connectivity.
- A prohibition on locating replacement or decommissioning compounds, access routes, storage areas and manoeuvring land within established mitigation or BNG habitat unless the relevant authority agrees that no less harmful alternative exists.
- A requirement to quantify habitat loss caused by decommissioning and to restore or replace that habitat to an equivalent or better condition.
- Post-replacement and post-decommissioning ecological monitoring, with defined success criteria and enforceable remedial triggers.
- Binding consultation with South Norfolk Council, Norfolk County Council, Natural England and the Environment Agency on the relevant final plans.
- An index-linked, insolvency-protected decommissioning and ecological restoration security sufficient to fund all removal, restoration, monitoring and remedial obligations.

Overall conclusion

The application does not provide a secure whole-life ecological case.

Its own evidence establishes that:

- the Scheme would operate for up to 60 years;
- photovoltaic panels may require replacement up to twice;
- batteries may require replacement up to four times;
- major replacement works create construction-like ecological pathways;
- decommissioning would take approximately 12–24 months;
- the precise methods are subject to substantial future uncertainty;
- the National Grid substation and underground infrastructure may remain;
- and restoration is qualified by the phrase ‘as far as reasonably practicable’.

The relevant representations materially reinforce those concerns:

- South Norfolk Council asks which terrestrial, riparian and aquatic habitats will actually remain and requires ancient-woodland buffer habitats to be retained;
- Natural England seeks clearer BNG success criteria, remedial triggers and long-term responsibilities;
- the Environment Agency identifies unresolved DEMP, pollution, cabling and operational ecological issues;
- Norfolk County Council identifies infrastructure that may be permanent and questions whether full restoration is possible;
- Norfolk Wildlife Trust asks who will pay and whether successor owners will be legally bound;
- and BEPS identifies the contradiction between a claimed durable BNG, optional habitat retention, possible return to arable use and the absence of insolvency-proof financial security.

Until the Applicant identifies which habitats will survive, assesses the mature-habitat effects of replacement and decommissioning, secures successor responsibility and provides adequate financial security, the claimed operational ecological benefits and BNG should be given limited weight.

A habitat gain that may later be removed, damaged during equipment extraction or returned to arable cultivation at landowner discretion is not demonstrated to be a durable ecological gain. A future DEMP cannot cure that fundamental uncertainty unless the DCO first fixes the ecological outcomes, legal responsibilities and financial means by which they will be delivered.

8.15 Biodiversity Net Gain

The Applicant relies upon its Biodiversity Net Gain Report as an important part of the ecological case for East Pye Solar. The headline figures are a claimed 37.42% gain in habitat units, 31.35% gain in hedgerow units and 16.08% gain in watercourse units across the Order Limits. Those figures substantially exceed the minimum 10% figure against which the Applicant presents the Scheme.

Natural England welcomes the demonstration of gains exceeding 10% using the Defra Biodiversity Metric. It also supports aligning habitat delivery with the Norfolk Local Nature Recovery Strategy and recognises the potential for a project of this scale to contribute to 'more, bigger, better and more joined up' habitats. Natural England's support is not, however, unconditional. It asks for clearer success criteria, remedial triggers, long-term management responsibilities and alignment with the final Norfolk LNRS so that the proposed measures can be delivered effectively. It also advises that the gains must be secured through planning obligations, conservation covenants or DCO requirements.

Natural England did not assign BNG a red, amber or green risk category because mandatory BNG for NSIPs was not due to apply until 2 November 2026. The Applicant is nevertheless relying upon the claimed gain as a policy benefit and as evidence that East Pye would produce a favourable ecological outcome. The calculations must therefore be scrutinised with the same care as any other material part of the Applicant's case.

Norfolk Wildlife Trust takes a similarly qualified position. It supports ambitious BNG exceeding the statutory minimum and landscape-scale nature recovery, but also requires the Scheme to avoid harm to designated sites, priority habitats and protected species and to provide genuine and lasting ecological benefits. Having reviewed the final ES and associated documents, NWT concludes that further information and design refinement are required before the Scheme can be considered ecologically acceptable.

BNG should consequently be treated as a separate and subordinate stage of the ecological assessment. It follows, rather than replaces:

- establishment of an adequate baseline;
- avoidance of harm;
- application of the ecological mitigation hierarchy;
- compliance with protected-species requirements;
- assessment under the Habitats Regulations;

- protection of irreplaceable habitat;
- compliance with Water Framework Directive objectives;
- and assessment of population-level and landscape-scale ecological effects.

The existence of a positive metric balance does not demonstrate that those prior questions have been answered.

8.15.1 BNG does not determine ecological acceptability

The Biodiversity Metric is a habitat-accounting tool. It assigns relative values according to matters such as habitat type, area or length, condition, strategic significance, difficulty of creation and time to target condition. It does not determine whether the Scheme is lawful or ecologically acceptable in all other respects.

The Applicant's own BNG material acknowledges that the metric operates as a habitat proxy providing relative values. BEPS' review of the application identifies that the metric does not measure the functional issues at the centre of the East Pye objection, including bat commuting networks, dark-landscape integrity, landscape permeability and species viability.

A positive BNG result cannot answer the following matters.

Protected-species law

The metric does not determine whether protected species will be killed, injured, disturbed or deprived of breeding sites, resting places or functionally important habitat. Nor does it determine whether any licence tests can be satisfied.

Natural England retains protected species as an amber matter. The Outline Protected Species Mitigation Strategy indicates that licences may be required for water vole or otter, great crested newts, roosting bats and badger-sett closures. Natural England asks for confirmation of whether those licences have been applied for and advises early action.

Habitat units created elsewhere do not demonstrate:

- that barbastelle maternity-colony habitat will remain functional;
- that disturbance of a bat roost is licensable;
- that great crested newt pond connectivity will be maintained;
- that badger-sett disturbance can be avoided;
- or that protected aquatic species will be unaffected.

The Scheme could therefore achieve a positive numerical BNG result while still committing a protected-species offence or failing the applicable licensing tests.

That problem is particularly acute for species whose requirements are spatial and behavioural. A hectare of new grassland does not replace a specific bat flight line. A new pond does not necessarily replace a breeding pond connected to established terrestrial habitat. A length of new

hedge does not automatically replace a mature, dark commuting route between a maternity woodland and its feeding areas.

Habitats Regulations assessment

The Biodiversity Metric does not constitute an assessment under the Conservation of Habitats and Species Regulations. It cannot establish the absence of likely significant effects or adverse effects upon the integrity of a European site.

Natural England addressed the Shadow HRA separately from BNG. Its agreement with the HRA conclusion concerning Norfolk Valley Fens SAC, The Broads SAC, Broadland SPA and Broadland Ramsar is based upon the identified pathways, distance, hydrological evidence and mitigation, not upon the positive BNG calculation.

The legal questions under the Habitats Regulations therefore remain independent. Habitat gains elsewhere cannot be counted against an adverse effect on site integrity or used to avoid the precautionary assessment required where reasonable scientific doubt remains.

Irreplaceable habitat

The metric cannot show that loss or deterioration of ancient woodland, ancient or veteran trees, or lowland fen is acceptable.

South Norfolk Council specifically distinguished the Biodiversity Gain Hierarchy from the ordinary ecological mitigation hierarchy and required the Applicant to consider enhancement of existing habitats rather than relying only upon replacement creation. It also required the semi-natural habitats within ancient-woodland buffers to be retained after decommissioning.

Irreplaceable habitats derive their value from age, ecological continuity, soils, fungi, hydrology, deadwood and other characteristics that cannot be recreated within the operational period of a solar development. A positive total of ordinary habitat units cannot compensate for their loss or deterioration.

The metric result must therefore be calculated and presented separately from the policy test for irreplaceable habitats. It cannot be used to place proposed woodland or grassland creation on the positive side of the balance as though it cancels deterioration of ancient woodland, veteran-tree habitat or lowland fen.

Water Framework Directive compliance

Watercourse BNG does not amount to a Water Framework Directive assessment and cannot establish compliance with the no-deterioration objective.

BEPS' review of the BNG watercourse annex records that many baseline reaches are classified as poor or fairly poor, that proposed enhancement frequently does not move the reach into a higher condition class and that the annex expressly records no increase to the next condition class. Part

of the numerical gain appears to arise from reduced riparian encroachment and changes in strategic significance rather than demonstrable improvement to channel condition.

A watercourse-unit surplus does not establish that:

1. sediment will not enter the River Tas system;
2. a waterbody quality element will not deteriorate;
3. chalk-stream flow or substrate will remain unaffected;
4. HDD will not cause hydrological or pollution effects;
5. white-clawed crayfish habitat will be protected;
6. or European eel movement will remain unaffected.

Those issues require separate source–pathway–receptor and WFD assessment.

Population viability

The metric principally values habitat. It does not directly determine the size, distribution, breeding success or viability of protected and priority-species populations.

This matters at East Pye because the application evidence includes:

- a nationally important bat assemblage;
- overlapping barbastelle maternity-colony support landscapes;
- extensive skylark breeding territories;
- known and potential turtle-dove and lapwing habitat;
- a confirmed breeding white-clawed crayfish population within the connected River Tas system;
- and priority mammals, amphibians, fish and aquatic invertebrates.

A habitat may remain in the metric while becoming less usable by the species for which it is important. Conversely, a newly created habitat may score units before there is evidence that the target species uses it.

The Applicant's BNG Report itself treats the skylark mitigation area as having only a limited effect upon whether the Scheme achieves the 10% target. That exposes the distinction between a habitat-unit outcome and the actual conservation consequences of displacing a large number of skylark territories.

The metric does not answer whether the displaced population can be accommodated, whether replacement land has sufficient carrying capacity or whether breeding success will be maintained.

Ecological connectivity

The metric cannot be treated as a complete analysis of functional connectivity.

NWT describes East Pye as a landscape of ancient woodland pockets, miles of species-rich hedgerows, semi-natural road verges, Roadside Nature Reserves, rare flora, farmland birds and

important barbastelle populations. It states that the area is not sparse with nature but is ecologically dense and that the Scheme must contribute meaningfully to connectivity at landscape scale.

The South Norfolk Tree Warden Network similarly explains that trees and hedgerows are functional ecological infrastructure. It identifies the absence of a route-wide assessment of hedgerow severance, gap creation, lighting, haul-road disturbance, access widening, visibility splays and the time required for replanted hedges to become functionally equivalent.

A length of hedge shown as retained or a new habitat strip shown on a plan does not prove that the network remains permeable. Connectivity depends on location, continuity, width, darkness, vegetation structure, adjoining land use and freedom from repeated disturbance.

For all those reasons, the claimed 37.42%, 31.35% and 16.08% gains cannot be used as a single answer to the adverse effects identified in Sections 8.1–8.14. The BNG calculation is relevant only after those effects have been identified, avoided and mitigated in accordance with their applicable legal and ecological tests.

8.15.2 Baseline undervaluation

The credibility of a BNG calculation depends upon the accuracy of the baseline. If existing habitats are assigned too little value, the apparent gain will be overstated even if the post-development calculation is otherwise arithmetically correct.

BEPS' review identifies several related baseline problems.

Low strategic significance assigned to the existing landscape

The BNG Report is understood to assign low strategic significance to baseline habitats, while some proposed habitats receive high strategic significance where they correspond to LNRS opportunity mapping. BEPS objects that this creates an artificial asymmetry: an existing functioning landscape is given low strategic weight, while proposed habitat receives a multiplier because it falls within an area identified for future nature recovery.

That approach requires detailed justification.

An LNRS opportunity area identifies where action for nature recovery would be beneficial. It does not necessarily establish that the existing habitat in that location is strategically insignificant. In some cases, the reason an area is strategically important for restoration is precisely because it connects or supports existing habitats, designated sites, protected-species populations or hydrological networks.

The Applicant's own scoping material stated that its ecology assessment would refer to:

- Norfolk Habitat and Species Action Plans;
- Claylands Wilder Connections;
- South Norfolk Council's advice on strategically significant BNG;

- and the Norfolk LNRS.

That commitment required more than using opportunity mapping to uplift proposed habitat. It required assessment of the strategic role already performed by the existing habitat network.

Natural England welcomes the Applicant's reference to the LNRS but says the BNG documentation should be strengthened to reflect the final strategy and provide clearer delivery controls. The Applicant should therefore explain, habitat parcel by habitat parcel, why existing features were assigned low strategic significance despite their relationship to:

1. ancient woodland;
2. SSSIs and County Wildlife Sites;
3. barbastelle maternity-colony Core Sustenance Zones;
4. the River Tas and Hempnall Beck;
5. priority farmland-bird land;
6. Roadside Nature Reserves;
7. and existing hedgerow and tree networks.

A general baseline assumption of low strategic significance is not adequate for a dispersed Scheme intersecting so many connected ecological receptors.

Stewardship farmland is reduced to generic cropland

The BNG baseline records approximately 942.66 hectares of cropland and 95.10 hectares of grassland across the Sites. That may be an orthodox metric classification, but it conceals important differences in ecological function.

Parts of the land have been managed under Environmental or Countryside Stewardship for many years. As explained in Section 8.11, that management has included functions relevant to skylark, lapwing, turtle dove and other farmland birds. The Applicant's own breeding-bird survey confirms that affected fields support numerous skylark territories.

The broad category 'cropland' does not distinguish between:

- intensively managed crop with little wildlife provision;
- winter stubble;
- low-input land;
- land containing skylark plots;
- wild-bird seed or pollen-and-nectar areas;
- land maintained with open nesting conditions;
- or a field whose boundaries and margins form part of a multi-species stewardship mosaic.

Those functions may depend on management continuity, crop structure, sightlines, seasonal food availability and lack of infrastructure. They cannot be represented adequately by the low distinctiveness ordinarily attributed to generic cropland.

The consequence is that existing publicly funded habitat function can be lost cheaply within the metric and then replaced on paper by grassland beneath panels or other generic habitat. That does not demonstrate ecological equivalence.

Species-specific habitat function is not valued

The same problem extends beyond stewardship land.

For bats, the value of a hedge depends upon its position between roosting and foraging habitat, its darkness, mature trees, height, structure and continuity. For white-clawed crayfish, the importance of a ditch depends upon its hydrological connection to occupied or potential habitat. For great crested newts, a grass margin may be part of the functional connection between breeding ponds and terrestrial refuges. For turtle dove, scrub or hedge structure and proximity to seed-rich forage matter.

The metric may assign the same habitat type and condition to features whose ecological functions are materially different.

The Tree Warden Network's evidence is especially relevant. It records that mature trees, hedgerows and tree lines provide roosting, foraging and commuting habitat within a nationally important bat landscape and should not be assessed merely as generic habitat units.

The baseline should therefore have been supplemented by functional overlays showing:

- principal bat routes and colony-support habitats;
- breeding-bird territories and stewardship functions;
- pond and terrestrial amphibian networks;
- aquatic catchment connectivity;
- designated-site connections;
- veteran-tree and ancient-woodland networks;
- and rare botanical and invertebrate features.

Without those overlays, the metric baseline may be numerically complete while remaining ecologically incomplete.

Ancient landscape structure is undervalued

Norfolk Wildlife Trust's Claylands evidence describes a historic network of hedges, field trees, grasslands, commons, ponds, ditches and other connected habitats. It explains that trees and hedges were central to the web of biological connectivity across the Claylands and that ecological benefit is multiplied where existing habitats are linked.

The strategic value of this structure does not depend only upon the condition of each individual feature. It arises from:

- historical continuity;
- spatial arrangement;

- repeated connections;
- veteran and mature trees;
- banks and ditches associated with old hedges;
- and the relationship between woods, watercourses, ponds and open fields.

A new hedge shown on an LNRS opportunity map may eventually become valuable, but it does not immediately reproduce that existing structure. The baseline should recognise the ecological value already provided by the connected landscape rather than treating it principally as a set of low-significance habitat parcels awaiting enhancement.

Baseline survey limitations may depress unit values

The baseline is also affected by the survey limitations identified elsewhere in this Chapter.

The application did not contain a full botanical survey of all verges, field margins, cable routes and highway works. The aquatic assessment was habitat-led, lacked direct macroinvertebrate sampling and was undertaken during unusually dry conditions. The arboricultural assessment remained preliminary in relation to parts of the construction design.

Where a habitat has been incompletely surveyed, the assigned type or condition may be too low. Examples include:

- species-rich verge classified from a broad walkover;
- dry seasonal ditch assigned low value without wet-season assessment;
- field margin treated as generic grassland despite locally important flora;
- hedgerow condition assessed without complete understanding of its bat or historic function;
- or watercourse condition assessed without direct invertebrate evidence.

A metric calculation cannot be more reliable than the baseline data entered into it. Before weight is given to the claimed gain, the Applicant should recalculate the baseline using the complete ecological evidence required by the Examination.

8.15.3 Post-development overvaluation

The post-development side of the calculation is inherently predictive. It assumes that proposed habitat will be created, maintained and reach a specified condition at a future point. That assumption requires particular scrutiny where the detailed design and management prescriptions remain deferred.

Reliance on LNRS opportunity mapping

The use of the Norfolk LNRS to guide habitat creation is appropriate in principle. Natural England supports alignment with the final LNRS and the opportunity to contribute to nature recovery.

The concern is not use of the LNRS itself. It is the apparent use of LNRS opportunity mapping to award high strategic significance to proposed habitat while existing habitats are assigned low significance.

An opportunity map does not demonstrate that a particular habitat proposal will:

- be successfully established;
- perform the necessary ecological function;
- connect the correct receptors;
- be protected from operational disturbance;
- or remain in place after decommissioning.

Strategic significance should not become a numerical uplift awarded simply because the proposed habitat lies within a broad opportunity area. The Applicant must show how each habitat contributes to the priorities, locations and ecological mechanisms identified by the final LNRS.

That should include an explanation of:

- which LNRS priority or measure is being delivered;
- the existing habitat network to which the proposal connects;
- the species or ecological processes expected to benefit;
- the minimum dimensions and condition needed;
- and how the connection will be maintained throughout construction, operation, replacement and decommissioning.

Optimistic condition assumptions

The Applicant's BNG calculation relies upon the OLEMP, Green Infrastructure Strategy, Hedgerow Removals Plan and assumptions within the BNG Report. The OLEMP is expressly an outline framework. The later LEMP is intended to provide detailed planting locations, species, sizes, densities, implementation timetables, management schedules and monitoring prescriptions.

Those deferred details are the matters that determine whether the predicted condition is achievable.

For example, achievement of moderate or good grassland condition may depend upon:

- appropriate soil fertility;
- successful establishment of the specified plant community;
- grazing or cutting at the correct frequency;
- removal of arisings;
- control of dominant species;
- suitable hydrology;
- prevention of compaction;
- and avoidance of excessive shading.

Woodland and scrub condition will depend upon species selection, survival, structural diversity, edge management, browsing, disease and long-term protection. Hedgerow condition will depend upon width, height, gaps, tree recruitment, cutting regime and freedom from repeated access works.

The application's outline documents do not yet demonstrate that all those requirements are compatible with:

1. panel operation;
2. drainage;
3. access;
4. fire and security requirements;
5. BESS and substation maintenance;
6. cable protection;
7. visual-screening objectives;
8. or future replacement works.

The post-development condition assumptions should therefore be audited against the engineering and operational requirements of the final Scheme, not merely against the habitat aspirations shown in an outline plan.

Time to target condition

The metric applies temporal risk multipliers intended to account for the time required to create or enhance habitat. That numerical discount does not remove the real ecological time lag.

Existing habitat functions are lost or degraded when construction begins. Replacement woodland, hedgerows, scrub, species-rich grassland and riparian habitat may take years or decades to reach their target condition. In the intervening period:

- displaced bats may lack an equivalent route;
- birds may lose nesting or feeding habitat;
- invertebrate communities may not have developed;
- new hedges may provide little shelter or connectivity;
- and new woodland may not reproduce mature-tree functions.

The BNG Report can estimate a future target and apply a multiplier, but it cannot prove that the habitat will reach that condition.

Natural England's request for clearer success criteria, remedial triggers and long-term management responsibilities directly addresses this uncertainty. The current documents do not yet establish:

- the measurable condition criteria for every habitat parcel;
- the monitoring frequency;
- who will assess condition;
- what constitutes failure;

- the time by which remedial action must occur;
- what happens if the original target becomes unachievable;
- or whether additional land or habitat units will be provided following failure.

Those matters must be secured before the predicted units are given full weight.

Uncertainty of establishment

Habitat creation is subject to practical uncertainty arising from:

- soil compaction and damage during construction;
- altered drainage beneath and between panels;
- shade and uneven rainfall distribution;
- drought, flooding and climate change;
- plant disease;
- browsing;
- unsuitable seed sources;
- invasive species;
- pollution incidents;
- and changes in operational management.

The Scheme is to be constructed on extensive clay-rich and seasonally wet land. Habitats shown on a plan may not establish to the assumed condition if soil structure or hydrology is damaged before seeding or planting.

The Applicant should therefore provide evidence that the target habitat is feasible on the actual soil and hydrological conditions of each parcel. A generic habitat prescription applied across multiple sites does not establish deliverability.

Mismatch between mapped retention and actual disturbance

The BNG calculation also requires reconciliation with the full construction footprint. A habitat may be shown as retained within the BNG plan but still be affected by:

- a temporary cable working corridor;
- haul-road traffic;
- HDD compounds;
- visibility splays;
- abnormal-load manoeuvres;
- temporary lighting;
- access widening;
- soil storage;
- pruning;
- or construction runoff.

The Tree Warden Network identifies precisely this mismatch. It notes that the Applicant relies heavily upon retained hedgerows and buffers but has not provided a route-wide analysis of

severance, access widening, lighting, compaction and the time needed for reinstatement to recover equivalent function.

Habitat cannot properly be entered as retained at full value where the authorised works permit it to be:

- crossed;
- compacted;
- illuminated;
- cut back;
- used for access;
- or disturbed for a substantial period.

At minimum, the Applicant must reconcile the BNG map with:

- the Works Plans;
- access and highway plans;
- Hedgerow Removals Plan;
- temporary compounds;
- cable working widths;
- AIL swept paths;
- visibility splays;
- Tree Protection Plans;
- and watercourse-crossing schedules.

Any habitat exposed to disturbance should be entered according to the reasonable worst case rather than the least harmful outcome that might be achieved at detailed design.

Reliance on future management and strategy

BEPS' Relevant Representation records that no specific BNG consultation occurred and that the OLEMP anticipates a future BNG Strategy setting out how the minimum gain will be secured. The current outcome is therefore generated from outline measures whose detailed implementation remains deferred.

That creates circularity:

- the Applicant relies upon the BNG result as evidence of ecological benefit;
- the BNG result relies upon habitat measures in the OLEMP;
- the OLEMP defers the detailed design and management to the later LEMP and BNG Strategy;
- and the future documents are then expected to deliver the result relied upon at consent stage.

The Applicant must provide enough fixed detail during Examination to show that the claimed gain is feasible and secured. The later LEMP may refine implementation, but it should not determine for

the first time the land, habitat type, management prescription or performance standard necessary to achieve the headline figures.

8.15.4 Hedgerow and connectivity accounting

The claimed 31.35% hedgerow-unit gain requires particular scrutiny because the Applicant relies simultaneously upon existing hedgerow retention to avoid ecological harm and proposed hedgerow creation or enhancement to generate BNG.

Hedgerows in the East Pye landscape are not simply lengths of woody vegetation. They perform interconnected functions as:

- nesting and feeding habitat;
- bat commuting routes;
- links between ancient woodland;
- shelter and dispersal routes for amphibians, reptiles and mammals;
- botanical habitat on banks and margins;
- invertebrate habitat;
- and historic landscape boundaries.

NWT records that the ES identifies partial removal of 32 hedgerows, removal of five trees and temporary removal of hedge sections for cable installation and access. It seeks confirmation that no ancient or species-rich hedge will be removed, together with detailed restoration and monitoring for temporary losses.

The Site 5 written representation identifies an apparent and presently unresolved discrepancy which may indicate substantially greater disturbance than the narrative maximum; the Applicant must explain the plan symbols and identify the precise permanent and temporary effect on each Important Hedgerow.

The metric calculation must therefore distinguish between nominal physical retention and retention of ecological function.

Crossings

A hedge crossed for a cable, haul road or access may remain within the same overall mapped line, but its continuity is interrupted. The ecological effect depends upon:

- the width of the gap;
- the duration;
- whether the bank and ditch are also removed;
- lighting;
- traffic;
- the presence of mature trees;
- and the species using the route.

The Applicant's conclusion that gaps of up to approximately 10 metres are small in comparison with the total hedge resource does not answer the functional effect of a gap at a critical location.

NWT specifically challenges the conclusion that 10-metre gaps will not significantly affect bat movement, particularly for barbastelle. It states that small interruptions may reduce permeability and alter movement patterns and asks for scrutiny of key commuting routes, lighting controls and enforceability.

A hedge cannot therefore be counted as retained or enhanced without qualification where it contains a construction gap that may interrupt its primary ecological function.

Lighting

A retained hedge illuminated by a compound, vehicle route, substation or HDD operation may become less usable by light-sensitive bats. The metric may continue to record its type, length and structural condition, but the functional corridor has been degraded.

The BNG calculation does not contain a multiplier for loss of darkness or avoidance by light-sensitive species. That effect must be accounted for separately, and any hedge relied upon for connectivity should have an enforceable lighting limit.

Edge effects and adjoining land use

The value of a hedgerow also depends upon its margins and adjoining habitat. A hedge bordered by crop, grass margin and ditch may provide a wider ecological corridor than the same hedge bordered by a surfaced track, security fence and closely positioned panels.

The metric can record the hedge and the adjoining habitat separately but may not reflect the ecological interaction between them. Removal or compaction of the margin, repeated vehicle use, changes in drainage and operational disturbance may reduce hedge function even where no woody plants are removed.

Temporary loss and time lag

A replanted hedge is not equivalent to the mature hedge removed for construction. It may require many years to regain:

- height and density;
- mature woody structure;
- cavities and deadwood;

- continuous shelter;
- botanical bank vegetation;
- and use by bats and nesting birds.

The BNG calculation may apply temporal risk to newly created habitat, but the ecological assessment must still address what happens during the period of non-equivalence. Construction

phasing should prevent simultaneous severance of alternative routes, and replacement planting should occur in advance wherever practicable.

Functional severance across the Scheme

The effects must be assessed cumulatively. A single gap may be manageable if unaffected alternative routes remain. Numerous gaps, lighting points, accesses and construction corridors distributed across overlapping bat colony-support areas may reduce permeability at landscape scale.

The Tree Warden Network states that the ES contains no clear route-wide assessment of cumulative hedgerow severance, lighting, access widening and loss of tree-buffer integrity. That omission cannot be cured by presenting a positive total hedgerow-unit balance.

The hedgerow metric should therefore be accompanied by a functional-connectivity schedule showing:

- every temporary and permanent crossing;
- each affected species route;
- construction timing;
- lighting exposure;
- reinstatement period;
- alternative corridors;
- and the point at which replacement habitat is expected to become functional.

No hedgerow should be counted at full retained or enhanced value where its functional condition is not protected through the DCO.

8.15.5 Watercourse units

The Applicant claims a 16.08% gain in watercourse units. That figure does not demonstrate that the Scheme will protect or improve the ecological condition of the River Tas, Hempnall Beck, Starston Brook, Broome Beck or their connected tributaries and ditches.

BEPS' review of the watercourse annex records that:

- many baseline reaches are in poor or fairly poor condition;
- major riparian encroachment is widespread;
- proposed enhancement often does not raise the reach into a higher condition class;
- and the annex states that none of the condition scores increased to the next class.

The claimed gain therefore appears to arise in part from reducing encroachment and changing strategic significance rather than from a demonstrated improvement to channel condition. That calculation must be considered against the Environment Agency's Relevant Representation.

The Agency identifies a direct inconsistency between APP-218, the BNG Report, and APP-199, the OLEMP. It states that the OLEMP does not include the riparian enhancements and reduced

encroachment relied upon in section 4.3 of the BNG Report. The result is that management or enhancement opportunities may be overlooked, including treatment of Himalayan balsam, which contributes to the poor condition of Hempnall Brook. The Agency requires the riparian enhancements to be secured in the OLEMP and asks for explicit invasive-species checks and management.

This is a significant deliverability issue.

If the metric credits:

- wider riparian vegetation;
- reduced encroachment;
- invasive-species management;
- or improved bank management,

those measures must appear consistently in the document that controls implementation and long-term management. A measure cannot generate units in the BNG calculation but remain absent or optional in the OLEMP.

The Agency identifies a related inconsistency concerning watercourse buffers. Although the indicative masterplan appears to show wider separation between panels and some watercourses, the secured Design Principles commit only to a 10-metre stand-off. The Agency requires wider buffers around watercourses capable of supporting diverse aquatic-invertebrate communities and asks that those buffers be secured in both the OLEMP and the Design Principles.

The watercourse metric must therefore be recalculated against the buffer that is legally secured, not the wider separation shown indicatively.

The Applicant should provide a reach-by-reach schedule setting out:

- baseline condition;
- baseline strategic significance;
- proposed intervention;
- target condition;
- target strategic significance;
- time to target;
- responsible party;
- monitoring criteria;
- invasive-species measures;
- buffer width;
- and the DCO mechanism securing each commitment.

That schedule should be reconciled with the WFD assessment, aquatic ecology assessment, drainage strategy, OLEMP and construction management plans.

Most importantly, a positive watercourse-unit result does not establish:

- no WFD deterioration;
- no adverse effect upon white-clawed crayfish;
- no effect upon European eel;
- no sediment or pollution impact;
- no disturbance from HDD or crossings;
- or no interruption of aquatic-invertebrate life cycles.

The Environment Agency's disagreement with the Applicant concerning eel valuation and EMF, its concern about aquatic insects being attracted to solar panels, and its request for wider buffers demonstrate that the operational ecological effects have not been resolved through the BNG calculation.

The 16.08% figure should therefore be given limited weight until the riparian measures are consistent, fixed and demonstrably deliverable.

8.15.6 Durability and decommissioning

BNG is meaningful only if the habitat gains are durable. A habitat that exists temporarily during operation but is removed during replacement or decommissioning cannot be treated in the same way as a permanent contribution to nature recovery.

The present documents do not provide sufficient certainty.

Management duration and enforceability

The OLEMP states that management and monitoring duration will be defined in the later LEMP. It also indicates that, after decommissioning, landowners may choose how their land is used and may return all land to arable cultivation, although some habitat areas may remain.

That leaves the ecological end-state unresolved.

The Applicant should not receive full present credit for habitat where:

- the management period is not fixed;
- the responsible party is not identified;
- the habitat may be removed after decommissioning;
- or retention is left to individual landowner choice.

Natural England expressly advises that Requirement 7 should secure management, monitoring and maintenance of all landscape and ecological measures for the full operational lifetime of the development, with long-term habitat-performance indicators and remedial actions.

That is the minimum operational safeguard. A separate decision is still required regarding which habitats remain after the Scheme ends.

South Norfolk Council's request for clarity

South Norfolk Council has already required the Applicant to identify, as far as possible, the habitats that will be created and to provide clearer baseline maps and condition assessments. More importantly, it asks the Applicant to show clearly which 'linear terrestrial, riparian and aquatic habitats' will remain after decommissioning. It also states that the semi-natural habitats created within ancient-woodland buffers should be retained.

This is directly relevant to the claimed gain.

The Applicant must provide a mapped schedule distinguishing:

- habitat retained permanently;
- habitat retained only for the operational period;
- habitat likely to be disturbed by panel or BESS replacement;
- habitat affected by decommissioning access and excavation;
- habitat to be returned to arable cultivation;
- and habitat remaining around permanent National Grid or below-ground infrastructure.

Without that schedule, the percentage gain describes an assumed operational snapshot rather than a secure whole-life ecological outcome.

Replacement and decommissioning disturbance

Habitats created under the OLEMP may mature over several decades. Woodland, scrub, grassland and hedgerows may then lie between access points and the equipment requiring replacement or removal.

Replacement and decommissioning may require:

- HGV routes;
- cranes;
- compounds;
- equipment laydown;
- cable excavation;
- removal of piles and foundations;
- temporary lighting;
- vegetation clearance;
- and soil storage.

Unless the future working areas are fixed and excluded from BNG calculations, habitats credited as gain may later be damaged by foreseeable project activities.

The BNG Report must therefore be reconciled with the replacement and decommissioning scenarios addressed in Section 8.14. It should identify which units remain after:

1. major panel replacement;

2. repeated BESS replacement;
3. cable repair or extraction;
4. and final decommissioning.

A temporary drop in habitat condition during those phases must be accounted for, together with the time and risk associated with restoration.

Return to arable cultivation

The possibility of returning habitat land to arable cultivation creates a direct conflict between the BNG and agricultural-restoration cases.

If species-rich grassland, scrub, pollinator habitat or other created habitat is ploughed after decommissioning, the ecological gain is lost. If the habitats remain permanently, the land is not fully restored to its former agricultural use.

The application must identify which outcome applies to each parcel. It cannot rely simultaneously upon:

- long-term ecological gain;
- landowner discretion;
- and comprehensive return to agriculture.

The fact that a minimum management period may have expired by year 60 does not answer the EIA issue. The Applicant relies upon the habitat as mitigation and as a benefit when seeking consent now. Its later removal would be a foreseeable ecological effect of the Scheme's final phase.

Successor responsibility and financial security

NWT asks who will pay for decommissioning and whether the obligation will bind successor entities if Island Green Power no longer owns the Scheme in 60 years. Those concerns apply equally to BNG.

Over the operational period:

- the DCO powers may be transferred;
- the operating company may change;
- land ownership may change;
- and different entities may control infrastructure and habitat land.

The DCO must ensure that responsibility for habitat management, monitoring, replacement and post-decommissioning retention remains enforceable against every successor.

The habitat obligations should also be supported by adequate financial security. Monitoring clauses alone will not fund replacement planting, invasive-species treatment, habitat recreation or long-term management if the project company becomes insolvent or abandons the Scheme.

This issue is addressed more fully in Section 8.14.4. For BNG purposes, the essential point is that units should not be credited as secure unless the land, management obligation, successor liability and funding are all demonstrably protected.

Overall conclusion on BNG

The Applicant's metric calculation may demonstrate a positive result within the structure of the Defra Biodiversity Metric. It does not establish that East Pye Solar is ecologically acceptable.

The calculation is subject to four fundamental limitations.

First, the metric does not answer the legal and ecological questions concerning protected species, the Habitats Regulations, irreplaceable habitat, WFD no-deterioration obligations, population viability or landscape-scale connectivity.

Secondly, there is a credible risk that the baseline has been undervalued through:

1. low strategic-significance assumptions;
2. broad treatment of stewardship farmland as cropland;
3. failure to value species-specific functions;
4. incomplete botanical and aquatic evidence;
5. and insufficient recognition of the ancient Claylands habitat network.

Thirdly, the post-development value depends upon:

- LNRS-based strategic-significance uplifts;
- predicted habitat condition;
- uncertain establishment;
- time-to-target assumptions;
- and an outline management plan whose detailed prescriptions remain deferred.

Fourthly, the claimed gains are not yet demonstrated to be durable through replacement, decommissioning and possible return to arable use.

The relevant representations corroborate those concerns:

- Natural England asks for clearer success criteria, remedial triggers, long-term management responsibilities and full operational-lifetime protection;
- the Environment Agency identifies a direct mismatch between the watercourse measures credited in the BNG Report and those secured in the OLEMP;
- South Norfolk Council asks for detailed baseline evidence, application of the correct BNG hierarchy and clear identification of habitats retained after decommissioning;
- NWT requires avoidance, lasting benefit and genuine landscape-scale connectivity and concludes that further information and refinement remain necessary;
- and the Tree Warden Network demonstrates that nominal habitat retention does not account for functional severance, lighting, access widening, compaction and delayed recovery.

BEPS therefore submits that the headline BNG percentages should be given limited weight unless and until the Applicant provides:

- A revised and independently auditable metric based upon the final Scheme design and maximum construction footprint.
- Corrected strategic-significance assumptions for existing habitats, with parcel-specific justification and proper recognition of existing connectivity, designated-site relationships, stewardship management and protected-species functions.
- A baseline recalculation incorporating the outstanding botanical, aquatic, hedgerow and other survey evidence.
- A species-function assessment demonstrating how the proposed habitat supports bats, farmland birds, aquatic receptors, amphibians and other priority species, rather than relying upon habitat units alone.
- A reconciliation of the BNG plans with all access routes, highway works, cable corridors, compounds, HDD areas, visibility splays, hedgerow crossings, lighting zones and temporary working areas.
- A hedgerow-connectivity assessment identifying every temporary and permanent gap, the time to functional recovery and the maintenance of alternative routes throughout construction.
- A reach-by-reach watercourse schedule reconciling the BNG Report, OLEMP, WFD assessment, aquatic ecology assessment and Environment Agency requirements.
- Fixed habitat-condition targets, monitoring methods, reporting intervals, remedial triggers and additional provision where target condition is not achieved.
- A whole-life habitat-retention plan identifying the BNG units that will remain through operation, replacement and decommissioning and those that may be disturbed or removed.
- Binding DCO provisions securing the land, management, successor responsibility, post-decommissioning retention and financial resources necessary to deliver the claimed gain.

BNG must remain additional to avoidance and mitigation. It must not be used to balance away harm to protected species, irreplaceable habitats, chalk streams, designated sites or functioning ecological corridors.

Until those matters are resolved, the positive metric balance is not proof of a genuine net ecological benefit. It is a projected accounting outcome dependent upon baseline assumptions, future habitat performance and management commitments that remain incompletely secured.

NOTE: The proper conclusion

The BNG is nominally set off against recorded habitat losses. It is not yet demonstrated to be set off against the full ecological damage that East Pye would actually cause.

The calculation appears to account for:

- permanent conversion of mapped habitat;
- identified tree and hedgerow removal;
- and temporary cable and highway impacts under an assumption of rapid reinstatement.

It does not necessarily account adequately for:

- the full maximum construction footprint;
- indirect and functional damage;
- mature-habitat recovery time;
- lighting and disturbance;
- cumulative severance;
- protected-species habitat function;
- hydrological effects;
- replacement cycles;
- or decommissioning damage.

The key Examination request should be for a complete BNG reconciliation schedule. For every habitat polygon, hedgerow, tree and watercourse affected by every authorised work, the Applicant should identify:

- the actual maximum area or length affected;
- whether it is lost, retained, enhanced, created or reinstated;
- the precise metric entry;
- the construction and indirect disturbance;
- the period before equivalent condition and function are restored;
- the relevant Works Plan and construction drawing;
- and the DCO provision securing the predicted outcome.

Until that audit is produced, the headline percentages do not prove that the proposed gains have genuinely been calculated against everything the Scheme will damage.

8.16 Outline LEMP and other deferred mitigation

The application relies upon a suite of outline management plans and future approval mechanisms to support its conclusions that ecological effects will be avoided, reduced to an insignificant level or converted into beneficial outcomes. The principal documents include the Outline Landscape and Ecology Management Plan ('OLEMP'), Outline Protected Species Mitigation Strategy ('OPSMS'), Outline Construction Environmental Management Plan ('oCEMP'), lighting controls, drainage strategies, later arboricultural documents, species-specific method statements and future protected-species licences.

BEPS does not contend that every construction or operational detail must invariably be fixed before a DCO is granted. Some contractor-dependent information can properly be refined after consent, provided that the effects of the authorised development have already been assessed, the mitigation relied upon is demonstrably feasible and the DCO fixes the environmental outcomes and limits within which later detail may be developed. The scoping consultation material itself recognises that outline management plans are commonly used where contractor information is unavailable, but also emphasises the need for clear controls, monitoring, reporting, enforcement and responsibility, including clarity about whether pre-commencement works are covered.

The objection is therefore not to the word 'outline' in isolation. It is to the extent to which East Pye Solar relies upon future documents to determine matters that are presently necessary to establish:

- what habitat and species interests will be affected;
- whether the proposed layout is capable of avoiding those interests;
- whether the mitigation is technically and legally deliverable;
- whether protected-species licences are likely to be required and obtainable;
- whether effects upon connected aquatic and terrestrial systems can be controlled;
- and whether the residual-effect conclusions in Chapter 8 are reliable.

At East Pye, these questions are material because the Applicant's own evidence identifies a nationally important bat assemblage, multiple barbastelle colony-support areas, ancient woodland and veteran trees, sensitive watercourses, designated and irreplaceable habitats, breeding farmland birds and numerous protected-species constraints. The relevant representations identify continuing uncertainty about buffers, lighting, access works, HDD locations, watercourse protection, riparian enhancement, protected-species licensing, monitoring and long-term habitat performance. Those matters cannot all be reduced to contractor implementation detail.

The Examining Authority must therefore distinguish between two categories of deferred information. The first is legitimate implementation detail, such as the precise sequence in which an already fixed planting scheme is installed. The second comprises matters that determine whether the Scheme is acceptable at all, such as the location of a dark bat corridor, whether an access conflicts with a veteran tree, whether an HDD compound can be accommodated outside a County Wildlife Site buffer, or whether a protected-species licence is realistically available. The second category must be resolved, bounded and secured before consent.

8.16.1 The OLEMP is an outline framework, not final mitigation

The application originally stated that a LEMP would be prepared before commencement of each phase, submitted for approval and secured by a DCO Requirement. It would be 'in accordance with' the OLEMP submitted with the application. The Applicant also stated that the type and level of mitigation and enhancement would remain subject to further environmental assessment and design evolution.

The BEPS Relevant Representation records that the submitted OLEMP remains expressly an outline framework founded on a preliminary design, with details subject to further work and stakeholder engagement. The later LEMP is intended to supply the detailed locations, species, stock sizes, planting densities, implementation timetables, maintenance schedules and monitoring prescriptions. Chapter 8 and the BNG Report nevertheless rely upon the OLEMP and its assumptions when reaching present conclusions about mitigation, enhancement and net gain.

This creates a structural difficulty. The OLEMP is being used both as:

- an outline framework to be completed after consent; and
- evidence that the present Scheme's ecological effects will be adequately mitigated and that its proposed habitats will achieve specified BNG outcomes.

It cannot safely perform the second function unless the matters essential to ecological effectiveness are already sufficiently fixed.

Habitat locations and boundaries

The exact location of habitat creation is not merely a landscaping detail. Location determines whether a habitat:

- connects two existing ecological features;
- forms a continuous bat or mammal corridor;
- protects an ancient woodland or veteran-tree buffer;
- intercepts runoff before it reaches a watercourse;
- provides suitable open-land habitat for farmland birds;
- or conflicts with access, drainage, security and operational requirements.

The application's broad proposals include woodland blocks, tree belts, scrub, hedgerow creation and enhancement, pollinator planting, tussocky and neutral grassland, modified grassland, habitat boxes, skylark mitigation, ghost ponds and arable margins. Those measures may be beneficial in appropriate locations, but they are generic habitat interventions. Their existence in a schedule does not establish that they will perform the species-specific and landscape-scale functions required at East Pye.

The final habitat plans must therefore show fixed boundaries and dimensions, not merely indicative areas within which habitat might later be provided. They must also be reconciled with:

- Works Plans;
- permanent and temporary access routes;
- cable working widths;
- visibility splays;
- compounds and laydown areas;
- HDD launch and reception areas;
- drainage infrastructure;
- security fencing and CCTV;
- abnormal-load manoeuvring areas;
- and replacement and decommissioning access.

A habitat cannot be relied upon as mitigation if the same DCO permits that land to be used for plant movement, storage, drainage, excavation or later equipment replacement.

Species, provenance, stock sizes and planting densities

The choice of species and planting structure determines whether proposed vegetation is ecologically appropriate, resilient and compatible with the local landscape. A screening belt selected principally for rapid visual enclosure may not provide the same function as a locally characteristic species-rich hedge, structurally diverse woodland edge or open grassland mosaic.

The OLEMP's combination of landscape screening and ecological enhancement is therefore not automatically benign. What assists visual screening may, depending upon its location and density:

- shade botanically important margins;
- enclose land intended for lapwing or skylark;
- alter wind and light conditions beside existing hedges;
- obstruct open-flight or sightline requirements;
- or create later pruning pressure around panels, CCTV and access routes.

The later LEMP must specify species, provenance, stock size, planting density, expected mature dimensions and management form. Those details should be assessed now against the ecological function of each location and the operational clearance required over the Scheme's 60-year life.

Implementation and establishment timetables

The timing of habitat creation matters because much of the Applicant's mitigation will not become functional immediately.

A newly planted hedge cannot immediately replace a mature dark commuting route. Young woodland does not reproduce mature-tree, deadwood or cavity functions. Newly seeded grassland may require years of appropriate management before it achieves the botanical structure and invertebrate value assumed in the BNG calculation.

The final framework must therefore identify:

- what will be created in advance of habitat loss;
- the minimum establishment period;
- when each habitat is expected to become functionally effective;
- what alternative habitat remains available during the intervening period;
- and whether construction phasing will avoid simultaneous severance of connected routes.

The metric's time-to-target multiplier is not, by itself, an ecological mitigation strategy. It records numerical risk but does not provide displaced species with habitat during the period of non-equivalence.

Management and monitoring prescriptions

The OLEMP does not yet provide a complete and measurable management regime for each habitat parcel. The later LEMP must determine matters such as cutting or grazing frequency, removal of arisings, hedge rotation, scrub control, woodland thinning, pond management, invasive-species treatment and protection from compaction or operational encroachment.

Natural England's DCO comments are significant. It welcomes Requirement 7 in principle but advises that it should expressly secure management, monitoring and maintenance of all landscape and ecological measures for the full operational lifetime of the development. It also requires long-term habitat-performance indicators and remedial actions. Natural England classifies that DCO matter as amber.

That advice confirms that implementation alone is insufficient. The Requirement must secure continuing performance, not merely initial planting.

Success criteria and remedial action

A meaningful ecological commitment must state what success looks like. It is insufficient to require that habitat be 'established' or 'managed appropriately' without measurable criteria.

The final LEMP should identify, for every habitat:

- target habitat type and condition;
- minimum area or length;
- structural and botanical criteria;
- required connectivity;
- target date;
- monitoring method and frequency;
- reporting authority;
- failure threshold;
- remedial action;
- and the date by which remediation must succeed.

It must also address what happens if the target cannot be achieved. The possible responses should include revised management, replacement planting, soil or drainage remediation, additional habitat provision and, where necessary, provision of further land. Remedial action should not depend solely upon the undertaker deciding that intervention is 'appropriate'.

Natural England's request for performance indicators and remedial actions shows that these matters are not presently secured with sufficient clarity.

Lighting parameters and dark corridors

The OLEMP does not fix a complete site-wide network of protected dark corridors or quantitative lighting parameters. BEPS' Relevant Representation identifies the absence of fixed lighting thresholds, lux modelling, corridor-permeability standards and species-specific protection for the nationally important bat landscape.

The Applicant's original scoping approach proposed to exclude ecological lighting effects on the assumption that night-time working would be avoided and that sensitive lighting design could be captured in the CEMP. It asserted that, on that basis, no discernible biodiversity effects were anticipated.

That is not a substitute for a final assessment. Construction may take place during winter hours of darkness, while operational lighting may arise at compounds, substations, the BESS, access points and through vehicle headlights and emergency activity. A commitment to 'sensitive' lighting does not identify:

- the maximum horizontal or vertical illuminance;

- the position and direction of each source;
- the extent of dark buffers;
- the switching regime;
- the spectrum and colour temperature;
- emergency-lighting assumptions;
- or the response if monitoring shows unexpected spill.

South Norfolk Council's Environmental Management Officer has also questioned the proposed use of motion-sensitive lighting and recommended actively controlled lighting linked to security monitoring using infrared CCTV. This illustrates that the operational method remains disputed even at principle level.

The final lighting strategy must therefore be integrated with the OLEMP and protected-species strategy. It should contain receptor-specific lux contours and maximum limits, fixed dark corridors, controls on mobile lighting, monitoring locations and remedial triggers. Those requirements must apply to construction, operation, equipment replacement and decommissioning.

Species-specific mitigation

The OLEMP largely presents habitats and management types rather than receptor-specific ecological outcomes. That is inadequate where the identified effects concern species whose requirements cannot be represented by generic planting.

Species-specific measures are required for, among others:

- barbastelle and other light-sensitive bats;
- skylark and other open-field birds;
- lapwing and turtle dove;
- great crested newt;
- water vole and otter;
- badger;
- reptiles;
- white-clawed crayfish;
- European eel;
- and aquatic invertebrates.

For bats, the relevant outcome is not simply the presence of more hedgerow units. It is the retention of dark, continuous and suitably structured routes between roosts and foraging habitat. For skylark, dense planting or grassland beneath panels is not equivalent to open nesting habitat. For aquatic species, generic riparian planting does not answer flow, water quality, sediment, EMF or biosecurity risks.

The Environment Agency's Relevant Representation provides a concrete example of the present deficiency. It identifies that riparian enhancements and reduced encroachment credited in the BNG Report are not included in the OLEMP. It requires those measures, including explicit invasive-species controls, to be secured in the OLEMP.

The Agency also states that wider watercourse buffers visible on indicative plans are not secured because the Design Principles commit only to a 10-metre stand-off. It requests wider buffers around watercourses capable of supporting diverse aquatic-invertebrate communities and requires them to be incorporated into both the OLEMP and Design Principles.

These are not minor drafting inconsistencies. They show that measures relied upon to support the BNG and ecological conclusions are absent from, or weaker in, the documents intended to control delivery.

Conclusion on the OLEMP

The OLEMP may provide a useful organisational framework, but it is not yet a complete mitigation package. Until locations, species, dimensions, timetables, performance standards, monitoring, lighting limits, species-specific outcomes and remedial obligations are fixed, the OLEMP should be given limited weight in support of conclusions that significant ecological effects will be avoided.

The later LEMP may refine implementation. It should not determine for the first time whether an ecologically effective solution exists.

8.16.2 Outline Protected Species Mitigation Strategy

The OPSMS is subject to a related but more acute objection because it concerns legal protections and potential licensing requirements.

Natural England records that the OPSMS indicates that licences may be required for:

- water vole or otter;
- great crested newts;
- roosting bats;
- and badger-sett closures.

Natural England retains protected species as an amber matter and strongly advises that the licensing position be addressed at the earliest opportunity. It also refers to the availability of its pre-submission screening process and a Letter of No Impediment where a licence need has been identified.

The Planning Inspectorate's scoping material similarly advised that the affected area should be surveyed at appropriate times by competent ecologists, with survey results, impact assessments and accompanying mitigation strategies included in the ES. Where licensing may be necessary, it advised use of Natural England's pre-submission process so that a draft application could be reviewed and a LONI issued, providing confidence to the decision-maker.

The application's present licensing approach does not yet provide that confidence.

Reliance on future surveys

Future surveys are necessary where ecological conditions may change, but they cannot replace an adequate application-stage baseline.

A pre-construction survey may establish whether a species has colonised a work area since the ES survey. It cannot retrospectively demonstrate that the authorised layout was designed to avoid the species where the application never established its distribution or functional habitat adequately in the first place.

The distinction is important:

- an update survey checks whether a known and assessed position has changed;
- a baseline survey establishes the information necessary to assess effects and design the development;
- and a pre-work check confirms immediate compliance before a specific activity.

The application risks using later surveys to perform all three functions.

The original scoping approach proposed, for example, that targeted water vole and otter survey would be considered where works within or immediately adjacent to watercourses could not be avoided. It also relied upon later CEMP, OEMP, DEMP and LEMP measures to justify no further survey for several priority mammals. That approach places design decisions before the final species evidence.

The same concern arises for:

- trees with potential bat-roost features;
- later identification of badger setts;
- great crested newt terrestrial connections;
- reptiles within field margins;
- and aquatic species at crossings whose final construction method remains unknown.

A later survey that discovers a constraint is useful only if the authorised Scheme retains a real ability to avoid it. If the cable, access, compound or substation location is already effectively fixed, the survey may lead only to supervision, displacement or a licence application rather than avoidance.

Contractor-led licensing

BEPS' Relevant Representation records that the Consents and Agreements Position Statement refers generally to a protected-species licence and states that, where required, the contractor would apply before commencement. It also records that the draft DCO framework requires a later protected-species strategy substantially in accordance with the OPSMS, without identifying a project-specific European Protected Species licensing pathway.

That is inadequate where the need for, scope of and grantability of a licence may affect the feasibility of the authorised development.

A contractor can prepare technical documents and submit a licence application. The contractor cannot determine:

- whether the statutory licensing tests are met;
- whether the chosen location has no satisfactory alternative;
- whether favourable conservation status can be maintained;
- or whether Natural England will grant a licence.

Those matters cannot be treated as ordinary construction risk where the Applicant seeks consent for works within a landscape supporting nationally important bats and other protected species.

This does not mean that every conceivable licence must be granted before the DCO decision. It means that where the available evidence indicates that a licence is likely to be necessary for a material component of the development, the Applicant should identify:

- the species and activity concerned;
- the licence type;
- the impact to be licensed;
- the avoidance and mitigation measures;
- the relevant alternatives;
- the conservation-status evidence;
- and the current view of Natural England.

A draft licence or LONI is particularly important where licence realism is central to deliverability. Natural England's amber position and request for clarification show that this matter remains unresolved.

Later method statements

Method statements are appropriate for specifying how an already justified activity will be carried out. They should not decide whether the activity is ecologically acceptable.

For example, an HDD method statement may specify drilling-fluid controls and monitoring. It should not determine for the first time:

- the launch and reception locations;
- whether a County Wildlife Site or fen buffer can be maintained;
- whether groundwater pathways are acceptable;
- or whether the access route affects a bat corridor.

Norfolk Wildlife Trust states that the precise HDD entry and exit locations remain deferred to detailed design. It explains that without those locations it is not possible to assess fully the effect on designated sites or the adequacy of the buffers. NWT requests the locations before the close of

Examination, together with larger precautionary buffers, exclusion of compounds and lighting from those buffers and hydrogeological assessment of HDD below fen habitat.

The same principle applies to vegetation-clearance, tree, hedgerow, reptile, amphibian and watercourse method statements. They may regulate implementation but cannot substitute for design-stage avoidance.

ECoW discretion

The Ecological Clerk of Works has an important role in supervising compliance, identifying unexpected receptors and stopping unsafe activities. However, ECoW discretion has limits.

An ECoW cannot ordinarily:

- move a work outside the Order Limits;
- remove an authorised access from the Scheme;
- create replacement habitat on land not secured;
- alter the DCO parameters;
- decide that a protected-species licence will be granted;
- or cure an inherently unsuitable design.

The South Norfolk Tree Warden Network gives a clear example. It records that the preliminary arboricultural assessment identifies four conflicts between indicative accesses and ancient or veteran-tree buffers, but leaves them to later detailed design because the accesses are flexible within Work No. 4. It argues that future survey, method statements and clerk-of-works oversight are necessary but do not replace a final plan resolving the conflicts before consent.

The OPSMS must therefore define the ECoW's authority, including:

- mandatory attendance;
- access to all work fronts;
- stop-work power;
- escalation procedure;
- written record keeping;
- reporting to the discharging authority;
- and the circumstances in which work cannot resume without further approval or a licence.

Discretion should operate within fixed ecological limits. It should not replace them.

Required protected-species position

Before the close of Examination, the Applicant should provide a revised OPSMS containing:

- A final protected-species constraints plan covering all permanent and temporary works.
- Defined survey-validity periods and triggers for updated surveys.
- A distinction between baseline surveys, update surveys and immediate pre-work checks.
- A schedule of every licence presently considered possible or likely.

- Draft licence information or a LONI where a material European Protected Species impact cannot be excluded.
- Fixed avoidance zones and species-specific construction restrictions.
- Species-specific lighting, access, vegetation-clearance and habitat-connectivity measures.
- The approval criteria for later method statements.
- Clear ECoW powers, reporting obligations and stop-work procedures.
- A requirement that newly identified constraints result in redesign or relocation where avoidance remains possible, rather than automatically proceeding to licensing.

8.16.3 CEMP, lighting strategy and drainage controls

The application divides environmental controls between a number of documents. That may assist administration, but ecological effects do not operate in separate documentary compartments.

A single hedgerow or watercourse may be affected simultaneously by:

- vegetation removal controlled through the LEMP or protected-species strategy;
- construction traffic controlled through the CEMP or CTMP;
- lighting controlled through a lighting strategy;
- runoff controlled through the drainage strategy;
- tree-root protection controlled through an arboricultural method statement;
- and species measures controlled through the OPSMS.

The residual effect can be assessed reliably only if those measures are consistent and operate together.

CEMP and ecological mitigation

Natural England's acceptance of the Applicant's conclusions concerning hydrologically connected SSSIs is expressly conditional. It states that effects can be ruled out provided the pollution-prevention, water-quality and runoff measures in the oCEMP are followed and secured.

That conditional position demonstrates the importance of the CEMP. Where the conclusion depends upon the CEMP, the controlling measures must be:

- specific;
- complete;
- consistent with other documents;
- and secured before the relevant activity.

The Environment Agency's Relevant Representation identifies continuing CEMP and groundwater matters, including the need for Foundation Works Risk Assessments and Hydrogeological Risk Assessments informed by intrusive ground investigation for deep foundations and trenchless crossings interacting with aquifers, watercourses or sensitive ecological sites.

That is not simply a ground-conditions issue. If piling or drilling may create a pollutant pathway to a chalk stream, wetland, groundwater-dependent habitat or private supply, the ecological

conclusion depends upon the hydrogeological assessment, construction method and pollution controls operating together.

The Applicant cannot reasonably assert a negligible ecological effect in Chapter 8 while leaving the assessment that determines whether the pathway exists to a post-consent CEMP process.

Lighting and habitat management

Lighting controls must be read with:

- the bat assessment;
- the habitat-retention plan;
- the access design;
- security arrangements;
- construction hours;
- BESS emergency procedures;
- and replacement and decommissioning plans.

A hedge designated for enhancement under the LEMP may still cease to function as a bat route if illuminated by an adjacent access or compound. A watercourse buffer may remain physically intact but lose nocturnal value through mobile lighting or headlights.

The final lighting strategy should therefore be a controlling ecological document, not merely an appendix to the landscape or electrical design. It should identify every receptor relied upon as a dark corridor and demonstrate, through modelling, that lighting from all relevant phases remains within the secured limits.

Drainage and aquatic ecology

Drainage controls similarly require integration with Chapters 8, 9 and 16.

The ecological consequences of drainage depend upon:

- the position of panels, tracks and hardstanding;
- soil compaction;
- field drains and ditches;
- watercourse buffers;
- discharge points;
- contamination sources;
- aquifer pathways;
- and the construction sequence.

The Environment Agency's evidence identifies possible rapid pollutant pathways through variable superficial deposits, sand lenses, buried channels and other transmissive features. It requires risk assessments and construction controls to avoid creating new pathways during piling and trenchless works.

The drainage strategy cannot therefore be approved solely by reference to hydraulic capacity or flood risk. It must demonstrate protection of:

- white-clawed crayfish;
- aquatic invertebrates;
- European eel and other fish;
- riparian habitat;
- chalk-stream substrate and flow;
- designated sites;
- groundwater-dependent habitats;
- and downstream water quality.

Inconsistency between documents

The Environment Agency's riparian-enhancement objection is evidence of an existing cross-document failure. Measures credited in the BNG Report are not carried into the OLEMP, while the wider buffers suggested by indicative plans are not secured in the Design Principles.

Natural England identifies another: the Applicant's 30-metre ancient woodland and veteran-tree buffer appears in the operational material but is not recorded consistently across the LEMP, CEMP and DEMP. Natural England requires the same protection in every relevant phase.

These examples show why each document cannot be assessed in isolation. The controlling package should be audited receptor by receptor, rather than document by document.

Required integrated mitigation schedule

The Applicant should provide an Integrated Ecological Mitigation Schedule containing, for each receptor:

- the impact pathway;
- the affected work;
- the avoidance measure;
- the controlling document;
- the relevant DCO Requirement;
- the measurable limit or outcome;
- the monitoring method;
- the approving and consulting authorities;
- the responsible person;
- the failure trigger;
- and the required remedial action.

For example, the schedule for Hempnall Beck should bring together the buffer, HDD method, groundwater assessment, water-quality monitoring, invasive-species controls, protected aquatic species, EMF limits, lighting and riparian enhancement. The schedule for each barbastelle corridor should bring together vegetation retention, construction access, lighting, noise, fencing permeability, replacement phasing and monitoring.

This would expose any gaps, contradictions or measures that currently appear in an assessment but not in a secured implementation document.

8.16.4 Effectiveness and enforceability

A mitigation measure should not be treated as part of the environmental outcome merely because it appears somewhere in the application. The Examination must establish:

- what is secured;
- by which legal mechanism;
- against what standard;
- for what period;
- by whom it is monitored; and
- what happens if it fails.

What is secured?

The first question is whether the relevant document is itself certified or otherwise incorporated into the DCO, and whether later plans must comply with it.

BEPS' Relevant Representation records concern that the protected-species Requirement uses the expression 'substantially in accordance with' the outline strategy. Such wording may allow changes whose ecological significance is uncertain.

Where an outline commitment is relied upon to reach a no-significant-effect conclusion, the final plan should be required to be in accordance with it, subject only to changes that:

- are supported by updated evidence;
- do not weaken the mitigation;
- do not increase an assessed effect;
- and are approved after consultation with the relevant ecological body.

A final plan should not be permitted to omit, narrow or relocate a measure merely because the undertaker considers the document still 'substantially' consistent overall.

The same issue applies to the revised Commitments Register. Revision 2 improves administrative traceability through individual commitment references and clearer identification of delivery, responsibility and compliance, but the Register remains expressly not itself a secured document. It is an audit and tracking mechanism whose substantive force depends upon the DCO Requirement, certified document or other legal mechanism to which each commitment is ultimately attached. More importantly, commitments continue to use qualifications including 'where practicable', 'where possible', 'as far as practicable' and similar formulations. Improved traceability therefore does not answer the separate question whether the ecological outcome assumed by the ES is mandatory, measurable and enforceable.

Which Requirement applies?

Natural England identifies Requirement 7 as the LEMP mechanism and Requirement 8 as the protected-species mitigation mechanism. It considers both require further strengthening or clarification.

The Environment Agency's summary table identifies a wider system in which:

- Requirement 7 concerns ecological assessment and the LEMP;
- Requirement 11 concerns surface and foul-water drainage;
- Requirement 13 concerns the CEMP;
- and Requirement 14 concerns the OEMP.

The Agency also identifies unresolved matters across ecology, BNG, water quality, drainage and groundwater.

The Applicant should produce a requirement-by-requirement mitigation audit. Each measure relied upon in the ES should be traced to a specific Requirement, protective provision, licence or obligation. Measures with no legal destination should not be treated as secured.

Against what measurable standard?

Terms such as the following are too uncertain where used without defined criteria:

- 'where practicable';
- 'where possible';
- 'appropriate';
- 'sensitive';
- 'reasonable';
- 'where required';
- and 'substantially in accordance'.

They may be acceptable as supporting language, but not as the only expression of an outcome essential to the ES conclusion.

Examples of measurable standards include:

- a mapped no-work buffer;
- a maximum lux level at a receptor;
- a specified water-quality trigger;
- a habitat area and condition target;
- a minimum hedge width and continuity;
- a fixed season during which work is prohibited;
- a maximum noise or vibration level;
- a survey-validity period;
- or a requirement for no deterioration against an identified baseline.

The standard must relate to the receptor and effect assessed. General compliance with 'best practice' is not an adequate substitute where the outcome depends upon a site-specific threshold.

For how long?

The duration of the obligation must match the duration of the effect.

Natural England requests that landscape and ecological measures be maintained and monitored for the full operational life of the Scheme. That is necessary where habitat measures support conclusions about 60 years of operation.

The DCO must also identify:

- which measures continue through panel and BESS replacement;
- which apply to decommissioning;
- which habitats remain permanently;
- and which monitoring obligations survive removal of the generating equipment.

A five-year establishment period cannot secure a habitat whose function is relied upon for six decades.

Who monitors and approves?

The undertaker should not be the sole judge of whether its mitigation has succeeded.

The final framework should specify roles for:

- the relevant planning authority;
- Norfolk County Council where appropriate;
- Natural England;
- the Environment Agency;
- an independent Ecological Clerk of Works;
- an arboricultural clerk of works;
- and suitably qualified specialists for aquatic, botanical or other receptors.

The approving authority must receive monitoring reports and have power to require remediation. Consultation must be substantive: the relevant body should receive sufficient time and information, and its unresolved objection should be reported rather than simply recorded as consultation having occurred.

For high-risk receptors, independent verification should be required. This is particularly appropriate for habitat-condition assessments, bat-lighting compliance, water-quality monitoring, veteran-tree protection and restoration of temporary habitat losses.

What happens if mitigation fails?

Monitoring without an enforceable response is descriptive rather than protective.

The DCO should specify:

- immediate stop-work triggers where irreversible harm is possible;
- the person authorised to issue a stop notice;
- notification timescales;
- investigation requirements;
- temporary containment or protection;
- remedial measures;
- additional habitat or compensation where restoration fails;
- monitoring extension;
- and enforcement consequences for non-compliance.

Habitat failure also requires financial provision. If planting, grassland establishment, pond creation or restoration fails, funds must be available for repeated intervention or alternative provision. This issue becomes more important through changes of operator and possible insolvency over the 60-year project life.

8.16.5 Deferred mitigation and legal consequences

The distinction is not between "application-stage" and "post-consent" information as such. Post-consent work is legitimate where it refines implementation of an already assessed and acceptable solution. The difficulty arises where later survey or design is needed to identify whether a sensitive receptor exists, whether avoidance is required or whether an acceptable solution is possible at all.

That distinction is particularly material here because botanical survey, further barbastelle work, aquatic evidence, final lighting controls and some protected-species measures remain unresolved. Where later work could require development to be removed, relocated or materially redesigned, the issue is one of pre-consent environmental acceptability rather than routine implementation.

The legal position requires care. The authorities do not establish an absolute prohibition on staged assessment or outline management plans. Equally, they do not permit a decision-maker to assume that unspecified future mitigation will work.

Outline and staged processes are not inherently unlawful

In No Adastral New Town Ltd v Suffolk Coastal District Council [2015] EWCA Civ 88, the Court of Appeal accepted, in the SEA context, that deficiencies at an earlier stage could be cured through later supplementary assessment and genuine consultation before the plan was adopted. It also endorsed the proposition that environmental assessment is a process and that an environmental statement need not contain every conceivable item of information at its first iteration.

That authority supports the possibility of remedy during the present Examination. It does not establish that essential ecological information may simply be left until after the DCO has been made and the public Examination has closed.

The distinction is between:

- supplementary assessment and consultation before the decision; and
- post-consent implementation detail prepared by the undertaker or contractor after the principle and parameters of the development have been authorised.

The former may cure a deficiency. The latter cannot safely do so where the missing information is necessary to determine whether consent should be granted.

EIA requires sufficient information about effects and mitigation

In R (Champion) v North Norfolk District Council [2015] UKSC 52, the Supreme Court emphasised the role of EIA in identifying likely significant effects and the measures proposed to prevent or reduce them, with public participation in assessing the efficacy of those measures. In that case, where pollution-prevention measures had not been fully identified and further work was required, it was impossible at the relevant stage to conclude that there was no risk of significant effects; the Court described the situation as an archetypal case in which the risks and proposed controls should have been set out in the environmental assessment and subjected to consultation.

Champion does not require every construction detail to be fixed. It supports the narrower proposition that later conditions should not be assumed to reduce an effect to insignificance where the nature and efficacy of the measures are themselves unresolved.

Applied to East Pye, the Environmental Statement must contain enough information to establish, before consent:

- the maximum ecological effect of the authorised works;
- the feasibility of the avoidance and mitigation relied upon;
- the principal location and specification of those measures;
- and a legal mechanism capable of securing them.

A later contractor method statement may then implement the established solution. It should not supply the first evidence that a solution exists.

Mitigation cannot be used at HRA screening to avoid Appropriate Assessment

The position under the Habitats Regulations is distinct.

In People Over Wind and Sweetman (Case C-323/17), the Court of Justice held that measures intended to avoid or reduce harmful effects cannot be taken into account at the screening stage when deciding whether an Appropriate Assessment is required. Current government guidance reflects that rule: if likely significant effects cannot be excluded without mitigation, the measures may be considered only through an Appropriate Assessment.

An Appropriate Assessment must be based on sufficiently complete and precise information, and mitigation relied upon at that stage must be adequately secured and likely to work in practice.

Natural England agrees with the Applicant's no-LSE conclusions for the European sites identified in the shadow HRA. That agreement must be represented fairly. It does not remove the need for the Examining Authority to check the basis of each screening conclusion.

Where no likely significant effect is concluded because:

- there is no credible pathway;
- the receptor is outside the Zone of Influence;
- or the effect is objectively insignificant without mitigation,

the screening conclusion may be sustainable.

Where the conclusion instead depends upon:

- pollution prevention;
- runoff controls;
- construction buffers;
- timing restrictions;
- HDD methodologies;
- or other measures designed to avoid or reduce harm,

those measures cannot be used to avoid Appropriate Assessment at screening.

The updated Planning Inspectorate HRA advice confirms that the EIA and HRA regimes are distinct and that the Secretary of State is the competent authority for the DCO decision.

Later Habitats assessment may be possible, but only before implementation

The law also requires acknowledgment of the Supreme Court's more recent decision in C G Fry & Son Ltd v Secretary of State [2025] UKSC 35. The Court confirmed that, in a genuinely multi-stage consent process, an Appropriate Assessment may be required at a later approval stage before the decision that authorises implementation, even where it was not undertaken when outline permission was granted. The focus of the Habitats regime is that the project must not be authorised to proceed without the necessary assessment and integrity conclusion.

That decision does not make every deferred DCO matter acceptable. It means that the legal effect of the later approval mechanism matters.

For reliance upon a later DCO Requirement to be defensible, the Requirement must:

- prevent the affected works from commencing;
- permit the approving authority to require the necessary assessment;
- permit refusal where adverse effect cannot be excluded;
- retain sufficient design flexibility to avoid the effect;
- and operate before any irreversible enabling or preliminary works occur.

A requirement that merely asks the undertaker to submit a plan 'substantially in accordance' with an outline document, without enabling fundamental redesign or refusal of the affected work, may not provide an equivalent protective stage.

C G Fry also concerns the timing of Habitats assessment. It does not displace the separate EIA obligation to assess likely significant effects and mitigation through the application and public decision-making process.

Application to East Pye

The present degree of deferral is legally material because the future documents are relied upon not merely to optimise works but to support current conclusions that effects will be negligible or non-significant.

Examples include:

- the final resolution of access conflicts with ancient and veteran-tree buffers;
- HDD entry and exit locations beside County Wildlife Sites and fen habitat;
- final watercourse-buffer widths;
- protected bat corridors and lighting thresholds;
- riparian enhancement credited in the BNG calculation;
- the licensing position for roosting bats, great crested newt, water vole, otter and badger;
- hydrogeological controls for piling and trenchless crossings;
- and the location and condition of habitats relied upon as mitigation.

Those matters determine whether harm can be avoided, whether mitigation is effective and whether the authorised development can be delivered lawfully. They should not all be left to post-consent plans.

The Applicant has now introduced a separate control for 'permitted preliminary works'. Revision 2 of Requirement 13 requires those works to be undertaken in accordance with a Permitted Preliminary Works Environmental Management Plan. BEPS welcomes the recognition that preliminary works require environmental control. The amendment does not, however, remove the ecological issue. The Examination must establish precisely what activities may occur as permitted preliminary works and whether vegetation clearance, intrusive investigation, access formation, drainage works, archaeological excavation or other activities capable of affecting protected species or habitats could occur before the full ecological controls applicable to substantive construction have been discharged.

Required examination outcome

BEPS submits that the Applicant should be required to provide, before the close of Examination:

- A revised OLEMP containing fixed habitat plans, species and structural specifications, implementation phasing, management timetables and measurable condition targets.

- A site-wide dark-corridor and lighting plan, including quantitative receptor limits, lux contours, operating controls and monitoring.
- A revised OPSMS containing final constraints mapping, survey-validity rules, species-specific strategies, licensing schedules and defined ECoW powers.
- Draft licence material or a LONI for any material European Protected Species impact that cannot presently be excluded.
- Fixed HDD launch and reception areas and a complete watercourse-crossing schedule.
- An Integrated Ecological Mitigation Schedule reconciling Chapter 8, Chapter 9, the OLEMP, CEMP, lighting strategy, drainage strategy, arboricultural controls, protected-species strategy and BNG Report.
- A requirement-by-requirement audit identifying the legal mechanism securing every measure relied upon in the ES.
- Amended Requirements 7, 8, 11, 13 and 14, where applicable, so that essential measures must be implemented in accordance with the approved documents and may not be materially weakened through later approval.
- Full-operational-life management, monitoring and maintenance, as requested by Natural England.
- Defined monitoring responsibility, reporting, independent verification, stop-work triggers and enforceable remedial action.
- A prohibition on commencement of any preliminary, enabling or intrusive works capable of affecting the relevant receptor until the corresponding plan and assessment have been approved.
- Financial and successor-liability provisions sufficient to secure habitat establishment, remediation and long-term performance.

Conclusion

Outline management plans are not inherently defective. Their acceptability depends upon what has already been assessed and what remains to be decided.

At East Pye, too many matters presently described as later detail determine whether the development can avoid protected species, maintain ecological connectivity, protect ancient and veteran trees, prevent pollution of connected water systems and deliver the habitats credited in its BNG case. Natural England retains the LEMP and protected-species Requirements as amber matters requiring stronger lifetime performance and licensing clarity. The Environment Agency identifies unresolved inconsistencies between the BNG Report, OLEMP, watercourse buffers, CEMP and drainage controls. Norfolk Wildlife Trust states that deferred HDD locations prevent full assessment of effects on designated habitats. The South Norfolk Tree Warden Network identifies unresolved access conflicts that are being left to later design.

The Examining Authority should not assume that those matters will be resolved successfully after consent. The Applicant must demonstrate during Examination that an effective ecological solution exists, identify its essential content and secure it through precise and enforceable DCO provisions.

Where that cannot be done, the relevant residual-effect conclusion should not be accepted. A future survey, contractor method statement, ECoW decision or licence application cannot

substitute for the application-stage evidence necessary to decide whether the Scheme is environmentally acceptable and lawfully deliverable.

8.17 Statutory and specialist consultee evidence

The ecological concerns raised in this chapter are not confined to BEPS or to a single species, habitat or development parcel. They recur across the representations of statutory bodies, specialist conservation organisations, the local planning authority, arboricultural interests and residents with detailed knowledge of the affected landscape. Those parties approach the Scheme from different professional and statutory perspectives, but repeatedly identify the same underlying issues: the ecological importance of connected woodland, hedgerow, verge, pond and watercourse systems; the risk that the Scheme will divide or degrade those systems; the inadequacy of assessing individual habitat losses in isolation; and the continuing reliance on outline, deferred or inconsistently secured mitigation.

There is not complete unanimity on every issue. The Forestry Commission provides technical advice rather than supporting or objecting to applications. Natural England has described several designated-site and ancient-woodland matters as capable of resolution, provided that the identified buffers, pollution controls and management measures are consistently secured. However, Natural England continues to identify protected-species matters as requiring further information and has requested that the 30-metre ancient woodland and veteran-tree buffers relied upon by the Applicant are expressly carried through the CEMP, LEMP and DEMP. Its qualified position therefore reinforces, rather than removes, the importance of enforceable and internally consistent mitigation.

The significance of the evidence lies in its convergence. The Environment Agency concentrates on aquatic ecology, fisheries, groundwater and pollution pathways. The Forestry Commission addresses woodland integrity, trees and landscape connectivity. Norfolk Wildlife Trust examines the county ecological network and priority species. South Norfolk Council addresses the mitigation hierarchy, BNG, construction methods and enforceability. The Tree Warden Network examines the physical consequences for trees and hedgerows. Local residents and specialist naturalists provide site-specific evidence of how the affected habitats function in practice. Taken together, these representations show that the Scheme's ecological effects cannot properly be understood as a series of small, separate and readily compensable habitat interventions.

8.17.1 Environment Agency

The Environment Agency's Relevant Representation does not accept that all aquatic effects have been adequately assessed or resolved. It identifies outstanding matters relating to fish, European eel, electromagnetic fields, aquatic invertebrates, riparian habitats, water quality, groundwater, construction methods and the enforceability of the environmental management framework. Its overall concern is not simply the possibility of an isolated pollution incident. It is that the Scheme introduces multiple potential source–pathway–receptor relationships across a hydrologically connected landscape, while important design and mitigation details remain deferred.

The Agency first challenges the Applicant's valuation of freshwater fish. It states that treating freshwater fish as a receptor of only local importance fails to account for the European eel, which the Agency identifies as critically endangered and as a species of principal importance under section 41 of the Natural Environment and Rural Communities Act 2006. The Agency requires the fish receptor to be elevated to county importance so that the ecological significance assessment does not understate possible effects on eel.

That valuation issue is connected to the Agency's separate concern about electromagnetic fields. The Agency expressly disagrees with the Applicant's conclusion that operational EMF from buried cables is not expected to produce ecologically significant effects on freshwater fish. Its concern is that residual magnetic fields at watercourse crossings may be detectable by European eel and may alter their behaviour. It therefore seeks evidence that cable burial depth and design will reduce magnetic-field strength to below 12 microtesla at the watercourse bed. The point is not that an adverse effect has already been conclusively demonstrated, but that the Applicant has not yet supplied the evidence needed to justify its conclusion of no significant effect.

The Agency also identifies a distinct impact pathway affecting aquatic insects. The Applicant's assessment has not addressed the possibility that aquatic invertebrates may be attracted to light polarised horizontally by solar panels, potentially inducing egg-laying away from water and interrupting their lifecycle. This matters because the Applicant's aquatic assessment identifies Hempnall Beck as capable of supporting diverse invertebrate communities. Although the indicative layout appears to keep panels away from some watercourses, the Agency observes that the wider stand-offs visible in the outline design are not secured, while the formal design commitment may permit development as close as 10 metres. It accordingly seeks wider, binding buffers around watercourses supporting diverse aquatic-invertebrate communities.

This illustrates the wider weakness in the mitigation case. A favourable indicative masterplan does not provide adequate ecological protection unless its stand-offs and exclusion areas are translated into enforceable parameters. The Agency's concern is therefore both ecological and procedural: the potential impact has not been fully assessed, and the apparent spatial mitigation is not yet secured against later detailed design.

The same inconsistency appears in relation to riparian habitat and BNG. The BNG Report relies upon riparian enhancement and reduced encroachment as part of the Scheme's claimed biodiversity outcome. However, the Agency records that the Outline Landscape and Ecology Management Plan does not contain corresponding commitments. It specifically identifies the opportunity and need to address invasive Himalayan balsam, which contributes to the poor condition of Hempnall Beck, and requests that the riparian enhancements credited in the BNG Report, together with invasive-species survey and management measures, are expressly included in the OLEMP.

That is a material inconsistency. Ecological units should not be credited on the basis of habitat improvements which are not secured in the document responsible for their implementation and long-term management. Nor can the BNG calculation itself establish that the Scheme has followed the mitigation hierarchy. The Agency's comments demonstrate that the claimed watercourse gain depends on measures whose location, specification and enforceability remain incomplete.

The Environment Agency's concerns extend beyond the immediate river corridor. It identifies unresolved groundwater and contaminated-land pathways involving piling and deep foundations, the maximum depth of ground disturbance, underground cable installation and replacement, thermal effects from cables, HDD drilling fluids, historic contamination, private and public water supplies and the underlying aquifers. At scoping stage, it considered that the Applicant had not adequately characterised the relationship between groundwater and surface-water bodies and required ground conditions and groundwater effects to remain within the assessment. It also required Foundation Works Risk Assessments and hydrogeological risk assessments where piling, deep foundations or trenchless crossing methods could interact with aquifers, watercourses or sensitive ecological receptors.

Its Relevant Representation confirms that these matters remain live. The maximum design depth for some substation foundations and piling had not been established sufficiently to assess interaction with the aquifer. The lifespan and replacement requirements for underground cabling remained unclear. The Agency also identified possible effects on groundwater-dependent terrestrial ecosystems and omissions in the list of nearby sensitive sites.

The Agency's water-quality position is similarly conditional. It seeks further development of baseline and operational monitoring, fuller pollution-prevention content in the oCEMP, oOEMP and oDEMP, and additional information about the installation and management of the BESS and substations. It also objects to preliminary works capable of disturbing contaminated ground being excluded from the CEMP, because that would allow an activity presenting a pollution risk to occur outside the principal environmental control document. It requests removal of drafting such as 'substantially in accordance with', which it considers would weaken enforceability, and seeks to be a named consultee on the relevant requirements.

The Agency's evidence therefore demonstrates three related deficiencies. First, the ecological importance of the aquatic receptors, particularly European eel and diverse macroinvertebrate communities, has not been fully reflected in the significance assessment. Secondly, material impact pathways remain dependent on design information not yet fixed, including cable depth, panel stand-offs, piling depths and crossing arrangements. Thirdly, the mitigation documents are not internally consistent or sufficiently secured. Those are not minor drafting matters. They affect whether the conclusions of no significant residual effect can safely be relied upon.

8.17.2 Forestry Commission

The Forestry Commission does not express support for or opposition to the application. Its role is to advise on effects upon trees and woodland, including ancient woodland. Its advice is nevertheless important because it explains why the absence of direct tree felling within an ancient woodland boundary does not demonstrate the absence of deterioration.

The scoping evidence identifies six ancient woodland parcels adjacent to development areas: Pope's Wood and Doyly's Grove adjoining Site 7C; Saxlingham Grove adjoining Sites 7F and 7G; Little Wood adjoining Site 7H; Ringers Grove adjoining Site 8A; and Spring Wood adjoining Sites 3A and 3B. These include both ancient semi-natural woodland and plantations on ancient woodland sites. Veteran trees are also dispersed throughout the Order Limits and their surroundings.

Doyly's Grove illustrates why simple distance measurements are inadequate. The Applicant's own scoping description records the woodland as adjoining Site 7C to the south, west and north. Development on several sides can increase enclosure, edge effects and isolation even where no land is taken from within the mapped woodland boundary. The Forestry Commission specifically warns that nearby development can be particularly damaging where woodland becomes isolated within the landscape, is surrounded on several sides, or is effectively enclosed by development.

Ringers Grove raises a comparable concern. It is identified in the scoping consultation evidence as adjacent to Site 8A and is also identified in specialist bat evidence as an ash woodland of a type and age capable of providing barbastelle roost features. The relevance of the woodland therefore extends beyond its mapped habitat units: it may contribute to a wider woodland and bat network linking the River Tas corridor, nearby hedgerows and other mature woodlands.

The Forestry Commission describes ancient woodland as irreplaceable and emphasises that indirect effects may include fragmentation, loss of connectivity, damage to soils and roots, changes in drainage, dust, air pollution and contamination. It states that, because ancient woodland and ancient or veteran trees are irreplaceable, effects described as temporary may still produce irreplaceable damage. This is particularly important for construction compounds, access roads, cable trenches, storage areas and vehicle movements close to woodland edges and veteran trees.

Tree and woodland damage may also be delayed. Root severance, compaction, altered soil aeration, contamination or drainage change may not cause immediate canopy loss. Decline can occur over subsequent seasons or years, by which point the causal construction activity has ceased and replacement planting cannot restore the age, structure, fungi, deadwood, cavities, bark features and associated ecological relationships of the damaged tree or woodland edge. The Commission's advice therefore requires protection of the full root-protection area, which may extend beyond the crown, and controls against trenching, compaction, materials storage, fuel and chemical contamination and dust deposition.

The Scheme's fencing also requires consideration as part of this fragmentation analysis. The proposed development includes extensive security and deer-type fencing. The local scoping evidence states that the effects of extensive deer fencing on roe, muntjac, Chinese water deer and other large mammals were not adequately assessed and that enclosure should not impede wildlife movement between individual sites or across the wider region. That point was not made by the Forestry Commission itself, but it directly engages with the Commission's warning that development should not isolate woodlands or interrupt the features connecting them.

The Commission does not advocate narrow screening belts as an adequate ecological response. It advises that hedgerows, individual trees and woodlands should be considered together in terms of connectivity. New woodland should, where possible, form substantial connected habitat rather than isolated ornamental or screening parcels. Its advice refers to woodland creation in blocks of approximately five hectares, or connecting planting which creates woodland blocks of at least that scale, linked by hedgerows and hedgerow trees and supported by long-term management.

This evidence exposes an important distinction between landscape mitigation and ecological mitigation. A line of planting may eventually reduce views of panels but may not recreate the interior conditions, structural diversity, age, soil community, roost resource or functional

connectivity of an established woodland. The Forestry Commission's evidence requires the Scheme to be assessed as a potential alteration of a woodland network, not merely as infrastructure located outside six coloured polygons on an ancient woodland inventory.

8.17.3 Norfolk Wildlife Trust

Norfolk Wildlife Trust's evidence provides the clearest landscape-scale ecological assessment. NWT supports renewable energy in principle, but considers that further information and design refinement are required before East Pye can be regarded as ecologically acceptable. It describes the affected Claylands not as an ecologically depleted arable landscape but as a landscape 'dense with nature', containing ancient woodland pockets, species-rich hedgerows, semi-natural road verges, Roadside Nature Reserves, rare flora, important farmland birds and significant barbastelle populations.

That characterisation is significant because the Applicant's mitigation case frequently relies on the proposition that the principal development areas are agricultural fields of comparatively low habitat value. NWT's evidence is that the ecological value lies in the relationship between fields and the surrounding network of hedges, trees, ditches, ponds, verges, woodlands and watercourses. A development may therefore remove relatively little woodland in measured hectares while still impairing the movement, foraging, dispersal and hydrological processes that sustain woodland and protected-species populations.

NWT identifies direct and indirect risks to County Wildlife Sites and Roadside Nature Reserves. The Order Limits include parts of Lower Spring Wood CWS and Fritton Grange Meadows CWS and include or adjoin RNRs at Bussey's Loke, Market Lane and Parker's Lane. The use of HDD does not, by itself, resolve those effects because entry and exit compounds, drilling operations, vehicle movements, storage, noise, vibration, lighting and accidental releases may occur outside the narrow drilled alignment. NWT therefore seeks final entry and exit locations, larger precautionary buffers and the exclusion of construction compounds, lighting and storage from those buffers.

NWT's pre-application evidence also identified omissions in the mapped ecological network. The cable corridor was shown immediately adjacent to Tyrell's Wood CWS, Wood Green CWS and Pulham Market Big Wood SSSI, but Tyrell's Wood and Wood Green were omitted from the relevant PEIR mapping and assessment. NWT identified Tyrell's Wood as supporting barbastelle and recommended avoidance of the corridor because of its position within the colony's Core Sustenance Zone. It proposed moving the cable route west rather than relying on construction mitigation within the sensitive corridor.

The same preference for avoidance appears in NWT's treatment of Site 3. NWT had recommended that Site 3 be removed because of its relationship with Spring Wood CWS, ancient woodland and bats. It acknowledged the Applicant's subsequent removal of panels from part of the area, but remained concerned about construction activity and the siting of a substation immediately west of the woodland. It continued to regard removal of Site 3 as the preferable ecological solution.

That is important evidence on the mitigation hierarchy. NWT is not merely asking for additional planting around an unchanged layout. Its position is that the most damaging development areas

and routes should be avoided, relocated or removed. Buffering and restoration are secondary measures where avoidance cannot reasonably be achieved.

NWT also seeks wider and more ecologically functional woodland buffers. It recommends that 30-metre buffers around woodland and CWSs should form ecotones comprising rough grassland, scrub and woodland-edge vegetation rather than closely mown strips or residual spaces between fencing and woodland. An ecotone can provide gradual transition, shelter, foraging habitat and protection against edge effects. A nominal distance on a plan cannot perform those functions unless the habitat composition, management and exclusion of incompatible works are secured.

Bats are central to NWT's objection. The Applicant's own ES describes the Order Limits and surrounding landscape as supporting a nationally important assemblage of foraging and commuting bats. NWT does not accept that repeated temporary hedgerow gaps of up to 10 metres can be assumed to have no significant effect, particularly for barbastelle and Myotis species reliant on connected, dark linear features. The effects must be considered cumulatively across the cable corridor, access points, haul routes, visibility splays and individual development sites.

NWT further cautions that new habitat cannot automatically replace established commuting routes and mature landscape features. A newly planted hedgerow does not immediately reproduce the height, density, continuity, shelter, invertebrate productivity or familiarity of an old route. The relevant ecological loss therefore includes the period before replacement planting becomes functional, the risk of establishment failure and the possibility that a replanted route in a different position will not be used in the same way.

Lighting is part of the same connectivity issue. NWT accepts that routine night working may be limited but notes that continuous HDD operations and temporary compounds may require lighting. It seeks no light spill on woodland edges, hedgerows, watercourses or designated sites, quantified and enforceable limits, bat-sensitive design and monitoring close to barbastelle roosts and commuting corridors.

NWT's position is therefore that the Scheme must be reshaped to fit the ecological landscape, rather than requiring the landscape to be fragmented and subsequently repaired around the Scheme. Its evidence supports wider buffers, genuine ecotones, retention of dark corridors, avoidance of ancient and species-rich hedgerows, relocation of damaging cable sections and removal of the most sensitive development areas.

8.17.4 South Norfolk Council

South Norfolk Council's evidence adds an important distinction between the ecological mitigation hierarchy and the biodiversity gain hierarchy. The Council observes that the two are related but not identical and should not be conflated in Chapter 8. Avoiding or reducing harm to an existing habitat is not equivalent to removing or degrading that habitat and then producing a positive numerical BNG result elsewhere. The Council accordingly asks the Applicant to address enhancement of existing habitat as well as the creation of new habitat and to demonstrate BNG across the full DCO area, including the cable corridors.

This distinction is directly relevant to the Scheme's treatment of hedgerows, mature trees, woodland edges, ponds and watercourses. Those features may perform functions that are poorly reflected in a habitat-unit calculation, including established bat commuting routes, breeding and shelter habitat, local seed sources, amphibian stepping stones and hydrological connections. The mitigation hierarchy requires the Applicant first to avoid and minimise damage to those functions. The BNG hierarchy and metric cannot be used retrospectively to justify an avoidable impact.

The Council also requests clarity about the duration of claimed ecological gains. The Applicant refers to linear terrestrial, riparian and aquatic habitats remaining after decommissioning, but the Council seeks a clear plan identifying which habitats will in fact be retained. It specifically states that semi-natural habitats created within ancient-woodland buffers should remain after decommissioning. Without such a commitment, the BNG and connectivity case may depend on habitats which could be removed when the energy infrastructure is dismantled.

Ponds provide a practical example of the Council's approach. It asks the Applicant to consider restoration of ghost ponds and the creation of new ponds as part of the environmental design and BNG strategy, identifying potential opportunities including two former ponds within Site 7C. It also highlights the need to engage with Natural England on the availability of great crested newt compensation ponds and to hold sufficient survey information if district-level licensing cannot supply the necessary compensation.

These opportunities should not be treated simply as additions to the BNG total. Pond restoration should be designed as part of a connected network, taking account of surrounding terrestrial habitat, migration routes, road and cable barriers, shading, water source, permanence and long-term management. The value of a pond to great crested newts and other wildlife depends on its relationship with the wider landscape.

The Council's Environmental Management Officer also rejects percussive piles as the preferred fixing method for the solar arrays and states that screw piles should be advanced instead. Although this was raised principally as a noise and vibration matter, it is ecologically relevant. Percussive piling can generate repeated noise and vibration close to woodland, roosts, ponds and other sensitive features and may interact with groundwater and buried archaeology. The Council's position is that a quieter practicable construction method should be selected at source rather than relying on later management of the effects of a noisier method.

The Council also questions the Applicant's proposed reliance on motion-sensing lighting. Its recommendation is for actively controlled lighting operated by security personnel using infrared CCTV, so that lights are not repeatedly triggered by wildlife or other incidental movement. That approach is consistent with the need to preserve dark hedgerow, woodland and watercourse corridors and to avoid unpredictable light activation in otherwise dark rural locations.

South Norfolk Council's evidence therefore reinforces five points: existing habitat must be protected before compensation is considered; BNG must cover the whole authorised development; the retention period for created habitats must be clear; ecological enhancement should include restoration of historic pond networks; and avoidable construction noise, vibration and lighting should be removed through design rather than deferred to management plans.

8.17.5 South Norfolk Tree Warden Network

The South Norfolk Tree Warden Network addresses the physical mechanisms through which the Scheme may damage trees, hedgerows and the ecological network they support. Its principal concern is that the submitted Arboricultural Impact Assessment remains preliminary and is not a final, construction-ready assessment of every access, visibility splay, haul road, cable crossing, compound, highway intervention, tree-protection area and hedgerow opening.

The Tree Wardens identify a substantial arboricultural resource. The Applicant's ecological evidence records 49 trees with veteran features within the Order Limits and a further 21 within 30 metres. The Scheme also identifies 621 trees with potential to support roosting bats, comprising 577 within the solar and BESS sites and 44 within the cable and highway works areas. Native hedgerows, trees, ponds, field margins and watercourses occur throughout the development area.

The Preliminary AIA has identified four clashes between indicative access routes and buffers associated with ancient or veteran trees. The Applicant proposes to resolve those conflicts during detailed design because the routes retain flexibility within the relevant works envelope. The Tree Wardens object that this reverses the proper sequence. Where an access route or visibility splay conflicts with an ancient or veteran tree buffer, the conflict should be resolved before consent so that the Examining Authority can determine whether the route is deliverable without unacceptable damage.

Root protection is not confined to preventing direct tree removal. Access construction, trenching, compaction by heavy vehicles, temporary surfacing, crane movements, soil storage, changes in levels, dewatering and accidental chemical contamination may all impair roots or the soils upon which mature trees depend. Crown damage and excessive pruning may also occur where AILs, articulated vehicles or construction machinery require additional lateral or vertical clearance.

The Tree Wardens emphasise that such damage may result in delayed decline. A tree may remain standing throughout construction but deteriorate later because roots have been severed, soils compacted or drainage altered. A mitigation regime based only on recording immediate losses at the end of construction would therefore fail to detect the full effect. Protection must include final Root Protection Area plans, construction exclusion zones, no-dig areas, ground protection, storage and chemical exclusions, monitoring during works and a sufficiently long post-construction period to identify delayed deterioration.

Hedgerow severance is treated in the same functional manner. The Scheme anticipates repeated temporary removals, including sections of up to 10 metres, for cables, haul routes and accesses, together with additional clearance for visibility splays and highway works. Viewed individually, each opening may appear small. Viewed cumulatively across the Order Limits, the openings may fragment bat commuting routes, reduce shelter and foraging continuity, expose retained trees to altered edge conditions and interrupt the connected structure of the historic landscape.

The Tree Wardens therefore reject the treatment of trees and hedgerows merely as visual screening or generic habitat units. They describe them as functional ecological infrastructure. They support roosting, commuting, foraging, nesting and dispersal and connect woodlands, ponds, fields and watercourses. The ES does not provide a route-wide analysis of cumulative gap creation, buffer

intrusion, lighting, haul-road disturbance, access widening, visibility splays or the time needed for replanted hedges to achieve equivalent function.

Their evidence supports a final AIA before consent, comprehensive Tree Protection and Root Protection Area plans, resolution of the four identified buffer clashes, and a presumption of avoidance for ancient and veteran trees, high-value mature trees, potential roost trees, ancient woodland edges and important hedgerows. The evidence also demonstrates why replacement planting and BNG do not provide an immediate or equivalent remedy for damage to old trees and mature linear habitat.

8.17.6 Wood Green Residents Group and local evidence

The Wood Green and wider local evidence supplies information at a level of spatial and temporal detail that broad desktop studies may not capture. Local observations are not a substitute for systematic professional survey, but neither can they properly be dismissed where they identify potentially important receptors, breeding activity, recurring wildlife use or ecological connections requiring investigation.

The first issue is the concentration and connectivity of designated and locally important sites. NWT identified the cable corridor as passing immediately adjacent to Tyrell's Wood CWS and Wood Green CWS, as well as Pulham Market Big Wood SSSI. It also recorded that Tyrell's Wood and Wood Green were omitted from the PEIR's relevant mapping and assessment. This is not simply a cartographic error. The three sites form part of a connected woodland landscape in which cable construction, lighting, noise, vibration, drainage change and hedgerow removal may affect ecological function beyond the immediate working corridor.

The same network extends through Roadside Nature Reserves, including Parker's Lane. NWT confirms that the Order Limits include or adjoin Parker's Lane RNR, together with Bussey's Loke and Market Lane RNRs. These verges and lanes should not be considered isolated botanical strips. They connect hedges, ditches, woodland edges, ponds and fields and can provide movement and foraging habitat for invertebrates, amphibians, bats, birds and small mammals.

Local botanical evidence explains the significance of such features. The surviving verges are frequently associated with old banks, drainage ditches and hedges and may contain very narrow, long-established plant communities. Their ecological function is disproportionate to their area because they act as refuges and sources for recolonisation within a largely agricultural landscape. Road widening, vehicle overrun, passing places, visibility splays and repeated compaction could therefore remove or isolate small but important components of the wider network.

The local and specialist bat evidence is particularly material. Independent work undertaken in woodlands around the Scheme confirmed a barbastelle maternity colony in Little Wood near Shotesham and predicted or identified roosting activity in Brooke Wood, Lower Spring Wood and Spring Wood. It also identifies Saxlingham Grove as supporting a known maternity colony and recommends further assessment of Ringers Grove and other scattered woodlands. The specialist conclusion is that the effects of East Pye cannot be properly assessed without a fuller understanding of barbastelle distribution and use of the connected woodland landscape.

This evidence supports the residents' concern that bats are breeding and moving through a network which extends across CWSs, SSSI woodland units, smaller woods, mature trees, hedgerows and watercourses. The relevant receptor is therefore not merely a roost tree or a single woodland boundary. It is the functioning maternity landscape, including the dark and sheltered routes between roosting and foraging areas.

Local evidence also identifies great crested newts, water vole and a diverse bird assemblage in and around the affected area. The Environment Agency's scoping response supports the need for caution in relation to water vole because the species is mobile, may occupy suboptimal habitat and cannot reliably be protected by assuming that a 10-metre watercourse buffer captures its full area of use. South Norfolk Council has similarly required sufficient great crested newt survey information and a credible pond strategy.

The bird evidence includes turtle dove and starling. The Applicant's own scoping report anticipated that the breeding assemblage could include red-listed species such as turtle dove, starling, corn bunting, skylark, linnet and yellowhammer and accepted that many notable species would be associated with hedgerows, scrub, ditches, tree lines and woodland boundaries. Local observations of turtle dove activity and recurring starling murmurations are therefore consistent with the type of assemblage the Applicant itself considered likely. They should be reconciled with the Applicant's territory mapping, seasonal coverage and impact assessment rather than dismissed because they arise from residents.

Starling murmurations also demonstrate the distinction between recording the presence of a species and understanding the landscape function supporting it. A large pre-roost gathering may depend upon feeding areas, sheltered flight routes and suitable roost habitat extending beyond the field in which the birds were observed. The possible effects of construction disturbance, lighting, loss of feeding habitat and fragmentation therefore require consideration at an appropriate spatial scale.

Darkness is itself part of the ecological baseline. The local lanes, woodlands and watercourse corridors are generally unlit and provide dark routes for light-sensitive bats and other nocturnal wildlife. Temporary compound lighting, continuously lit HDD operations, substations, security lighting and lights activated repeatedly by wildlife could divide those routes even where hedges and trees remain physically present. Local dark-skies evidence therefore corroborates NWT's demand for quantified limits and South Norfolk Council's preference for actively controlled lighting rather than indiscriminate motion activation.

The local evidence concerning Hempnall Beck and the River Tas connects the terrestrial and aquatic objections. Hempnall Beck is a tributary of the River Tas and is identified as a chalk-stream feature capable of supporting diverse aquatic communities. The cable and development areas intersect its tributaries, ditches, riparian vegetation and groundwater catchment. NWT has identified areas where the corridor includes Hempnall Beck, veteran trees, spring-fed fen and floodplain habitats and has required the Applicant to demonstrate that cabling and HDD will not alter the hydrology sustaining those receptors.

The River Tas itself runs between Sites 8A and 8B, while the underlying superficial and bedrock deposits include Secondary A and Principal Aquifers. That relationship confirms that Wood Green, Parker's Lane, the CWS and SSSI network, local ponds, Hempnall Beck and the River Tas should

not be assessed as disconnected receptors. Surface water, groundwater, riparian corridors, roadside ditches, woodland and hedgerows combine to form one ecological system.

Local evidence does not remove the need for professional surveys. Its importance is that it identifies recurring use and potential ecological functions that the formal surveys must address. Where residents report breeding bats, great crested newts, water vole, turtle dove, starling murmurations and other notable birds in locations affected by development, the proper response is to investigate and reconcile those observations with the ES evidence. The absence of that reconciliation leaves uncertainty over both the baseline and the effectiveness of mitigation.

Convergence and consequence

The representations differ in emphasis, but their conclusions converge in five material respects.

First, the Scheme affects an existing ecological network rather than a collection of isolated habitat parcels. That network includes ancient woods, smaller woods, veteran and potential-roost trees, hedgerows, verges, ponds, fen, ditches, Hempnall Beck and the River Tas.

Secondly, the principal risks arise not only from direct habitat removal but from fragmentation, enclosure, disturbance, lighting, hydrological alteration, root damage, compaction, pollution pathways and the loss of functional continuity. Those effects may extend beyond the Order Limits and may emerge only after construction.

Thirdly, significant parts of the mitigation case remain dependent on later design. Cable burial depths, HDD entry and exit points, access alignments, piling depths and methods, construction compounds, lighting arrangements, watercourse buffers, root-protection measures and some habitat-management commitments are not yet fixed at the level necessary to demonstrate effectiveness.

Fourthly, there are inconsistencies between the documents relied upon to establish ecological acceptability. Riparian enhancements credited in the BNG Report are not fully carried into the OLEMP. Wider indicative watercourse buffers are not consistently secured in the design parameters. Ancient woodland and veteran-tree buffers require consistent inclusion across all phase-specific management documents. Habitats relied upon after decommissioning are not comprehensively identified and protected.

Fifthly, BNG does not answer the prior question of avoidance. Newly created habitat cannot automatically replace an established bat route, ancient woodland edge, veteran tree, species-rich verge, functioning pond network or hydrologically connected riparian corridor. The consistent evidence from the consultees is that the Applicant should first remove, relocate or redesign the most damaging elements and then demonstrate that the remaining effects can be mitigated through specific, measurable and enforceable controls.

The convergence is therefore not a repetition of separate objections. It is evidence of a structural deficiency in the Applicant's assessment. Bodies concerned respectively with fisheries, groundwater, forestry, county wildlife, local planning, arboriculture and site-specific ecology all identify the same underlying problem: a dispersed industrial development has been superimposed

upon a connected ecological landscape, while the assessment divides that landscape into individual receptors and relies heavily upon outline mitigation to restore or maintain the connections between them.

Until the Applicant provides an integrated ecological constraints and mitigation plan fixing the relevant avoidance areas, development exclusions, watercourse and woodland buffers, cable and access alignments, construction methods, lighting limits, riparian measures, tree-protection controls and long-term habitat obligations, the conclusion that the Scheme will produce no significant adverse residual ecological effects is not adequately demonstrated.

The examination record has since reinforced that convergence. ExQ1 directly tests the adequacy of the bat baseline, while ISH1 generated specific actions concerning local botanical evidence and the ecological implications of access and infrastructure design. Those developments do not establish that the ExA accepts BEPS's conclusions, but they confirm that the completeness of the ecological baseline and the adequacy of the Applicant's avoidance and mitigation case remain live examination issues.

8.18 Habitats Regulations and European Protected Species licensing implications

The full Habitats Regulations Assessment ('HRA') case is addressed separately in the HRA chapter. Chapter 8 should nevertheless identify the relationship between the ecological evidence, the Applicant's HRA screening conclusion and the separate European Protected Species ('EPS') licensing regime. These are related but legally distinct matters.

The Applicant submitted a Stage 1 Shadow HRA which considers Norfolk Valley Fens SAC, The Broads SAC, Broadland SPA and Broadland Ramsar. It concludes that no likely significant effect ('LSE') would arise, alone or in combination, through hydrological change, water pollution, altered species distribution or atmospheric deposition, and therefore does not proceed to Appropriate Assessment.

Since submission, the Applicant has issued Revision 2 of the shadow HRA. The principal change is the addition of Appendix C containing the relevant European-site citations and Natura 2000 data sheets in response to the Planning Inspectorate's section 51 advice. That improves the documentary material supporting the assessment but does not alter the substantive assessment route: the Applicant continues to conclude at Stage 1 screening that likely significant effects can be excluded and therefore does not proceed to Appropriate Assessment. The revision consequently does not itself resolve BEPS's concerns concerning hydrological connectivity, functionally linked land, mobile qualifying species or in-combination pathways.

Natural England's June 2026 Relevant Representation agrees with that conclusion and records no amber or red issue for internationally designated sites. Its position is that the European-site pathways have been screened out because of distance, lack of identified hydrological connectivity and lack of suitable or optimal habitat for the relevant qualifying species. That position must be

represented fairly: Natural England has not, on the application material it reviewed, requested an Appropriate Assessment for the four European sites considered by the Applicant.

That agreement does not mean that all Habitats Regulations and EPS issues are resolved. Natural England separately classifies protected species as an amber issue. It records that licences may be required for great crested newts, roosting bats, water vole or otter and badger-sett closures, and seeks clarification of the licensing position.

The legal and evidential questions should therefore be kept separate:

- whether East Pye could affect the qualifying features or integrity of a European site, including through functionally linked land and mobile species; and
- whether particular activities would contravene the strict species protections applying to bats, great crested newts, otter and other protected species unless licensed.

A positive conclusion under one regime does not determine the other.

European-site screening and the precautionary threshold

Under the Habitats Regulations, an Appropriate Assessment is required where an LSE upon a European site, alone or in combination with other plans or projects, cannot be excluded on the basis of objective scientific evidence. At screening, the competent authority must identify the European sites and qualifying features concerned and consider whether there is a credible impact pathway. A risk or possibility of an effect capable of undermining the conservation objectives is sufficient to require Appropriate Assessment.

Measures introduced specifically to avoid or reduce harmful effects cannot be relied upon at screening to avoid Appropriate Assessment. They may be considered at the Appropriate Assessment stage, where their effectiveness, implementation and enforceability must be established.

That distinction is material at East Pye. The Applicant's European-site screening conclusion is presented principally as a finding that no impact pathway exists, rather than as a conclusion dependent upon CEMP mitigation. The separate reliance upon pollution-prevention and runoff measures in the oCEMP relates particularly to the nationally designated SSSIs and ancient woodlands which Natural England accepts are hydrologically connected to the Order Limits.

The HRA objection must therefore test the scientific basis of the Applicant's asserted absence of a European-site pathway. It should not inaccurately characterise the Applicant as having screened out the European sites solely by relying on CEMP measures where its stated case is that the relevant sites are in different catchments, at higher elevation or otherwise not hydrologically connected.

Hydrological pathways to European sites

The Shadow HRA identifies water pollution, siltation, inappropriate water levels and hydrological change as potential pressures relevant to all four European sites considered. It then states that the

sites are sufficiently distant and are at higher elevation and/or in different catchments, so no hydrological connection to the Order Limits has been identified. On that basis it excludes LSE through water pollution, siltation and hydrological change, alone and in combination.

BEPS submits that the competent authority should test that conclusion against the wider water evidence, rather than treating the absence of a pathway as settled merely because it appears in the Shadow HRA.

The Scheme intersects an extensive system of field drains, ordinary watercourses, tributaries, aquifers and groundwater-dependent habitats. Natural England confirms that at least six SSSIs and two ancient woodlands are hydrologically linked to the Order Limits through watercourses or groundwater flow. Those sites include Fritton Common, Pulham Market Big Wood, Shotesham-Woodton Hornbeam Woods, Shotesham Common, Hedenham Wood and Tindall Wood Ditchingham SSSIs, together with Saxlingham Grove and Pope's Wood and Doyly's Grove ancient woodlands.

Norfolk County Council's LLFA identifies important deficiencies in the Applicant's underlying hydrological evidence. It records that:

- the geology and hydrogeology vary across the Scheme;
- the assessment remains substantially desk-based;
- site-specific infiltration and ground-investigation evidence is incomplete;
- ordinary watercourses and field drains are not consistently mapped or described;
- some surface-water pathways have not been considered adequately;
- the integrity of the existing field-drainage network must be maintained;
- and the Applicant's assumptions about runoff reduction through increased vegetation are not demonstrated catchment by catchment.

The Environment Agency likewise identifies unresolved pathways associated with deep foundations, piling, cable trenches, HDD, drilling fluids, contaminated land, aquifers, groundwater-dependent ecosystems and surface-water receptors. It requires additional hydrogeological and foundation-risk assessments where intrusive works may connect pollution sources with groundwater or ecologically sensitive water bodies.

That evidence does not, without more, prove a hydrological connection to Norfolk Valley Fens SAC or the Broads/Broadland European-site complex. It does, however, demonstrate that the hydrological baseline is more complex than a simple distance exercise. The Applicant should therefore provide the catchment mapping, groundwater conceptual models, elevations, flow directions and source–pathway–receptor evidence upon which the asserted absence of a European-site connection depends.

The competent authority should be able to trace, for each part of the Order Limits:

- the receiving ordinary watercourse or drainage system;
- the relevant surface-water catchment;
- the underlying groundwater body and likely flow direction;

- the relationship with the River Tas, Hempnall Beck, Broome Beck, Starston Brook and other receiving waters;
- the existence of any intervening hydrological barriers;
- and the evidence demonstrating that pollutants, sediment or changes in flow could not reach or affect a European-site qualifying feature.

Where the asserted absence of connectivity depends upon unverified assumptions about buried channels, superficial deposits, aquifer continuity, drainage direction or the condition of ordinary watercourses, the screening conclusion requires further substantiation.

The appropriate formulation at this stage is not that an adverse effect upon a European site has been established. It is that the no-pathway conclusion must remain open to review if the examination produces new hydrogeological evidence, corrections to catchment mapping or evidence of downstream connectivity capable of affecting a qualifying feature.

Functionally linked land and mobile qualifying species

The Habitats Regulations are not confined to activities occurring inside a European-site boundary. Land outside a site may require consideration where it supports a qualifying species or otherwise contributes to the conservation objectives of the European site. Government guidance expressly recognises that an effect may arise some distance from the designated boundary, including through pollution or through effects on feeding areas used by a designated species. An Appropriate Assessment must consider habitat and species outside the site boundary where they are functionally linked and effects upon them are liable to affect the site's conservation objectives.

The Applicant's Shadow HRA acknowledges that principle. It considers whether land within the Order Limits could constitute functionally linked land for mobile qualifying species of Broadland SPA and Broadland Ramsar.

The qualifying birds considered include bittern, Bewick's swan, whooper swan, marsh harrier, hen harrier, ruff and Eurasian wigeon. The Applicant concludes that:

- the Order Limits do not contain extensive reedbeds suitable for bittern;
- there is no relevant wetland roosting habitat for the swan species;
- the undulating agricultural land is less suitable than alternative areas;
- no marsh harrier was identified in the relevant desk study or breeding-bird surveys;
- and the Order Limits do not contain the wetland or marsh habitats principally used by the other qualifying species.

Natural England agrees with the resulting no-LSE conclusion.

BEPS should not therefore assert that all agricultural land within the Scheme is established functionally linked land for Broadland SPA or Ramsar. Nor should records of turtle dove, skylark, lapwing, starling or other locally important birds be treated as proving a connection with the Broadland qualifying assemblage. Those species remain relevant to the EIA and species-protection assessment, but they are not made SPA qualifying interests merely because they occur within the same landscape.

The remaining issue is whether the Applicant's functionally linked land assessment is sufficiently precautionary and current. In particular, the examination should establish:

- whether all relevant wintering-bird data have been considered;
- whether surveys covered the fields and seasons in which qualifying swans or raptors might reasonably occur;
- whether land-use changes during the survey period affected habitat use;
- whether local records held by residents, landowners, bird groups or the Norfolk Biodiversity Information Service disclose qualifying-species use;
- and whether other developments may displace birds from alternative feeding areas into, or away from, the East Pye landscape.

If new evidence identifies regular use by a qualifying population, the functional-land question would require reconsideration. The absence of evidence from a survey of limited duration should not be treated as permanent proof that mobile species cannot use the land during the 60-year life of the Scheme.

Barbastelle colony landscapes and the limits of the present HRA

Barbastelles require separate and careful treatment.

Barbastelle is a European Protected Species and an Annex II species under the Habitats Directive. The Scheme lies within a landscape supporting multiple maternity colonies, connected woodland, hedgerows, trees, watercourses and dark commuting routes. The Applicant's ecology material describes the Order Limits and surrounding landscape as nationally important for foraging and commuting bats. Norfolk Wildlife Trust identifies barbastelle as one of the most significant ecological constraints and questions whether repeated hedgerow gaps, lighting and construction disturbance can occur without degrading corridor functionality.

The Norfolk Barbastelle Study Group records that the six-kilometre Core Sustenance Zones of six maternity colonies lie within or abut the Scheme area, that two colonies lie beside the proposed cable route and that one colony would also be surrounded by panel areas. Its 2025 work confirmed a large maternity colony at Little Wood and produced acoustic evidence indicating probable additional colonies at Brooke Wood and Lower Spring Wood. It states that additional woodlands, particularly towards the eastern end of the Scheme, remain insufficiently investigated.

That evidence is highly material to EPS licensing and to the ordinary ecological assessment. It does not, without an additional evidential step, establish that the East Pye barbastelle population is functionally linked to a European site.

None of the four European sites considered in the Applicant's Shadow HRA is identified there as being designated for barbastelle. The presence of an Annex II species outside a SAC does not automatically convert every effect upon that species into an effect upon a European site. The HRA question arises only where evidence demonstrates that the affected animals or habitat contribute to the qualifying population, ecological structure or conservation objectives of a particular European site.

Chapter 8 should therefore avoid asserting that every impact upon the South Norfolk barbastelle metapopulation necessarily produces an LSE upon a specified SAC. Instead, it should require the Applicant and Natural England to clarify:

1. whether any of the East Pye colonies are known, or reasonably suspected, to form part of a population associated with a SAC designated for barbastelle;
2. whether genetic, roosting, dispersal or movement evidence connects the South Norfolk colonies with any such qualifying population;
3. whether any affected woodland, hedgerow or riparian feature constitutes functionally linked habitat for a European-site barbastelle population;
4. whether the cumulative loss or compression of colony-support landscapes could affect the conservation objectives of any relevant SAC; and
5. whether the HRA search area was sufficient to identify any European site for which that connection should be investigated.

Unless such a connection is evidenced, the principal legal regime governing impacts upon the local colonies is the EPS licensing regime, together with the EIA, NERC Act and planning-policy protections. The absence of a demonstrated European-site connection does not reduce the importance of the bats; it identifies the correct legal gateway through which the effects must be addressed.

Mobile species and ecological functionality

The EPS assessment must consider more than the physical removal of occupied roost trees. Not every effect upon foraging habitat or every interruption of a hedge automatically requires a licence. However, licensing implications may arise where disturbance, habitat loss or severance is sufficiently serious to:

- damage or destroy a breeding site or resting place;
- obstruct access to a roost;
- impair the continuing ecological functionality of a breeding site;
- or deliberately disturb bats in a manner likely to affect breeding, rearing, survival or the local population.

That issue is particularly important for maternity colonies which depend upon networks of alternative tree roosts, dark commuting routes and productive foraging areas.

The Study Group evidence indicates that the relevant landscape supports a metapopulation rather than isolated roosts. Its surveys identified maternity use of damaged and ageing trees, including split and lifted bark on ash, and probable maternity activity in broadleaved compartments within plantation woodland. This means that conventional surveys focused only on obvious cavities or mapped ancient woodland may omit part of the roost resource.

NWT's evidence similarly identifies repeated temporary hedgerow openings, lighting, vehicle movements, cable works and construction disturbance as potential effects upon the functionality of the wider colony landscape. It does not accept that a gap of up to 10 metres is necessarily

immaterial merely because the total length of hedgerow retained across the Scheme remains large.

The licensing assessment must therefore be based upon:

- the complete distribution of confirmed and probable maternity colonies;
- the network of alternative roost trees used by each colony;
- principal commuting routes;
- important foraging areas;
- cumulative hedgerow crossings;
- lighting exposure;
- construction and operational disturbance;
- and the relationship between individual work areas and the ecological functionality of each breeding site.

That information is not yet complete. The Study Group expressly calls for further radiotracking and assessment at Brooke Wood, Lower Spring Wood and Spring Wood and for investigation of other unsurveyed woodlands.

Absence of a clear project-specific EPS licensing route

The application acknowledges that protected-species licences may be required. The Consents and Agreements Position Statement says that any necessary applications would be made by the contractor before commencement. It does not identify a settled licence strategy for each affected species or demonstrate that a draft application has been reviewed by Natural England.

The oCEMP likewise relies upon later surveys to reconfirm species status, identify newly established constraints and support licence applications where required.

Natural England's Relevant Representation treats this as unresolved. It records that the Outline Protected Species Mitigation Strategy anticipates possible licences for water vole or otter, great crested newts, roosting bats and badger-sett closures. Natural England strongly advises that the licensing position be addressed at the earliest opportunity. It specifically refers to its discretionary advice process, under which it may review a full draft licence application and issue a Letter of No Impediment ('LONI') confirming that it sees no present impediment to a licence being granted if the DCO is made.

The Applicant's consultation response was only that it intended to comply with all relevant licence measures where appropriate. That is a statement of intention, not evidence that the potentially necessary licences are realistically obtainable.

The application and examination material identified in this review does not disclose a project-specific LONI for East Pye. The absence of a LONI is not automatically fatal and a LONI is not itself the statutory licence. It is nevertheless significant where the ecological acceptability and deliverability of a large part of the Scheme depend upon Natural England being satisfied that the licensing tests can be met.

A contractor-led application after consent creates particular uncertainty because the contractor may inherit:

- a fixed Order Limits boundary;
- authorised access locations;
- a substantially fixed cable route;
- approved work parameters;
- and construction deadlines.

At that stage, the practical ability to avoid a maternity landscape, move a major compound, remove a panel parcel or redesign a cable route may be materially reduced. A later licence process cannot be assumed to cure a design which has not retained sufficient scope to avoid the protected-species impact.

The three EPS licensing tests

Government guidance states that a developer seeking an EPS licence must show that:

- the activity falls within an authorised purpose;
- there is no satisfactory alternative which would cause less harm to the species; and
- the action will not harm the long-term conservation or survival of the relevant population.

If those tests are not met, Natural England cannot issue the licence and the authorised development may not be capable of implementation.

For East Pye, the second and third tests require particular scrutiny.

No satisfactory alternative

The Applicant cannot satisfy the alternatives test merely by showing that the chosen land was available or close to a grid connection. The question is whether the licensed impact can be avoided through a satisfactory and less harmful solution.

Depending upon the activity, alternatives may include:

- removing a panel parcel;
- relocating or reducing a substation or compound;
- changing the cable alignment;
- moving an access;
- retaining an unbroken hedge;
- using an existing crossing;
- adopting a less disturbing construction method;
- avoiding the maternity season;
- or selecting land outside the most sensitive colony-support area.

NWT has already identified specific avoidance alternatives. It recommends that Site 3 be dropped because of its relationship with Spring Wood CWS, ancient woodland and bats. It has also recommended relocation of sensitive cable sections rather than reliance upon later mitigation.

The existence of such proposals does not itself prove that they are technically satisfactory. It does mean that the Applicant must assess them transparently before claiming that no less harmful alternative exists.

The wider site-selection exercise must also be capable of explaining why a dispersed solar development was placed across a nationally important bat landscape rather than on land presenting fewer maternity-colony, woodland and connectivity constraints. The EPS alternatives test is not necessarily a requirement to compare every conceivable solar site in England. But where less sensitive routes, parcels, layouts or locations could meet the relevant project objective, landowner preference and development convenience should not be treated as conclusive.

Favourable conservation status

The conservation test requires evidence that the licensed works would not prejudice the maintenance of the species at favourable conservation status in its natural range. In practical terms, the assessment must address the affected population, not simply the number of trees physically removed.

For barbastelle, the relevant evidence includes:

- the number and distribution of maternity colonies;
- colony size and reproductive importance;
- availability of alternative roosts;
- retention of dark and connected commuting routes;
- quantity and quality of foraging habitat;
- cumulative pressure from other plans and projects;
- and the likelihood that mitigation habitat will become functional in time.

The Study Group's confirmation of a substantial colony at Little Wood, its prediction of additional colonies and its conclusion that the Scheme's effects cannot be understood without fuller distribution and habitat-use evidence make it difficult to reach a robust conservation-status conclusion on the present baseline.

A licence case based upon retention of most trees and hedges would not be sufficient if repeated severance, illumination and disturbance reduced the effective carrying capacity of the landscape for several maternity colonies. Conversely, the evidence should not assume such an outcome without demonstrating the relevant movement and habitat relationships. The required response is further radiotracking, corridor analysis and a colony-specific impact assessment.

Required HRA and licensing information

BEPS submits that, before the close of Examination, the Applicant should provide:

- A clear statement distinguishing the European-site HRA issues from the EPS licensing issues.
- The hydrological and hydrogeological evidence supporting the conclusion that no European-site pathway exists, including catchment maps, groundwater conceptual models, elevations and flow directions.
- Confirmation that the HRA has considered all relevant plans and projects affecting the same European sites and qualifying features.
- An updated functionally linked land assessment addressing all current wintering-bird evidence and any new records of Broadland SPA or Ramsar qualifying species.
- A reasoned statement on whether any East Pye barbastelle colony or colony-support habitat is functionally linked to a European site designated for barbastelle. If no such connection is alleged, that should be stated expressly.
- Completion of the additional barbastelle surveys and radiotracking identified by the Norfolk Barbastelle Study Group.
- A species-by-species licence schedule identifying:
    - the activity potentially requiring a licence;
    - the relevant location;
    - survey evidence;
    - avoidance measures;
    - the anticipated licence type;
    - and the programme for application.
- Draft licence material and, where the potential impact is material to Scheme deliverability, a project-specific LONI or equivalent formal advice from Natural England.
- A reasoned assessment of the no-satisfactory-alternative and favourable-conservation-status tests for all material EPS impacts.
- DCO provisions preventing commencement of the affected works unless the required licence has been granted and requiring redesign where the licence tests cannot be met.

The full HRA chapter should determine whether the present European-site screening remains legally sufficient. Chapter 8 should record the narrower conclusion that the Applicant's no-LSE position does not resolve the separate and presently amber protected-species licensing case.

8.19 Cumulative and in-combination ecological effects

The cumulative ecological assessment must address effects at three different but overlapping levels:

- the accumulation of effects generated by the numerous components of East Pye itself;
- the combined effects of East Pye and other plans and projects affecting the same ecological networks, populations and catchments; and
- the interaction of different environmental pressures—such as noise, lighting, hydrological change, dust and habitat severance—upon the same receptor.

Those levels should not be conflated.

For EIA purposes, 'cumulative effects' commonly refers to the Scheme's effects combining with those of other developments. The Applicant uses 'in-combination effects' in Chapter 19 to

describe different effects generated by East Pye acting upon the same receptor. Under the Habitats Regulations, 'in combination' has a separate legal meaning and concerns the effect of the project together with other plans or projects upon a European site and its qualifying features. The relevant assessment must make clear which meaning is being used.

The Applicant's Chapter 19 methodology

Chapter 19 does not assess every individual ecological receptor. It groups receptors and takes a receptor forward only where it experiences two or more residual effects assessed as minor or greater. Negligible effects are screened out. The Applicant also states that it has not identified the scale of each effect interaction, but has determined significance through the significance of the underlying effects and professional judgment.

The ecological receptor group used at the operational stage is principally 'ecologically designated sites and priority habitats'. Chapter 19 then identifies significant beneficial operational effects arising from the predicted improvement of native hedgerows, ponds, rivers and lowland deciduous woodland and from the cessation of agricultural fertiliser and chemical use.

That approach has four material weaknesses.

First, the 'minor or greater' threshold means that a series of effects classified individually as negligible is excluded before their combined significance is tested. That risks omitting precisely the type of cumulative ecological pressure created by a dispersed Scheme: numerous small hedge gaps, low levels of illumination, localised noise, repeated vehicle movements, small areas of compaction and multiple short-term disturbances.

Secondly, the methodology depends upon the residual conclusions of the underlying topic chapters. Where those chapters assume successful future mitigation, rapid reinstatement or negligible functional effects, those assumptions are imported into Chapter 19 before cumulative assessment begins.

Thirdly, the ecological grouping does not adequately distinguish species populations and functional networks. A barbastelle maternity colony, a great crested newt pond network, a crayfish catchment and a species-rich verge do not experience cumulative effects in the same way merely because they are all ecological receptors.

Fourthly, the assessment gives substantial prominence to predicted beneficial habitat and water-quality effects while giving insufficient attention to the interaction of adverse operational effects, including lighting, equipment replacement, drainage maintenance, disturbance and the continuing physical fragmentation of the landscape.

8.19.1 Cumulative effects within the Scheme

East Pye is not a compact solar field. It consists of numerous solar parcels, a BESS, project substations, a National Grid substation, cable corridors, highway works, access points, internal tracks, temporary compounds, security infrastructure, drainage and mitigation land spread across a wide area.

The ecological consequence cannot be derived by assessing each parcel or crossing in isolation.

Repeated hedgerow crossings and openings

NWT records that the application involves partial removal of 32 hedgerows, removal of five trees and temporary removal of further hedge sections for access and cable installation. It considers that the effect of gaps of up to approximately 10 metres has not been demonstrated adequately for barbastelle and other bats dependent upon continuous, dark linear features.

The cumulative issue is not simply the total length removed. It includes:

- how many gaps occur within each colony's foraging range;
- whether alternative routes are affected at the same time;
- whether the gaps are illuminated;
- the duration of functional severance;
- whether associated banks, ditches or mature trees are also affected;
- and the period before replanted sections become structurally and functionally equivalent.

A ten-metre gap may have a limited effect where several dark alternatives remain. The same gap may be important where it lies on a principal route between a maternity woodland and a watercourse or feeding area. Numerous gaps distributed across overlapping Core Sustenance Zones may compress movement into fewer remaining corridors and increase the significance of disturbance at those locations.

The assessment should therefore use a route-based and colony-based analysis, not a Scheme-wide percentage of hedgerow retained.

Multiple compounds and working areas

Norfolk County Council's LLFA identifies approximately ten temporary construction compounds but states that their size, layout and drainage arrangements are insufficiently described. It also identifies haul roads, cable construction areas, new tracks and temporary hardstanding whose surface-water effects remain unresolved.

Each compound may generate:

- vegetation clearance;
- compacted hardstanding;
- runoff;
- lighting;
- noise;
- vehicle movements;
- storage of fuel and chemicals;
- waste;
- and human activity.

The cumulative effect depends upon the number of compounds operating simultaneously, their relationship to woodlands, hedges, ponds and watercourses and the routes connecting them. A compound beside a bat corridor, another beside a pond network and another in the same sub-catchment may produce effects upon different parts of the same ecological system.

Compounds should therefore be mapped against:

- bat activity and roost evidence;
- great crested newt pond and terrestrial networks;
- ancient woodland and veteran-tree buffers;
- designated sites;
- riparian corridors;
- botanically important verges;
- and groundwater and surface-water pathways.

Multiple lit infrastructure nodes

The Scheme contains several sources of construction and operational lighting, including substations, the BESS, compounds, access points, security equipment and HDD operations. NWT notes that some HDD works may require continuous operation over one or two days and seeks fixed lux limits and no spill onto woodland edges, hedgerows, watercourses or designated sites.

The lighting assessment should not consider each lamp independently. Multiple low-level sources can divide a dark landscape into a series of illuminated or intermittently illuminated barriers. Vehicle headlights and motion-activated lights may also affect corridors which remain dark on a static lighting plan.

The relevant cumulative questions include:

- the combined spatial extent of all light spill;
- whether alternative dark routes remain;
- the number and duration of simultaneous night-working areas;
- the effect of motion activation by wildlife;
- and the relationship between construction lighting and permanent operational lighting.

For barbastelle and other light-sensitive bats, the cumulative loss of darkness may be more significant than the physical loss of hedge length.

Broad construction disturbance

The construction effects of cable trenching, HDD, haul roads, compounds, piling, access works and highway modifications overlap spatially and temporally. The same woodland edge may experience noise, lighting, dust and increased traffic. The same watercourse may be affected by upstream soil disturbance, a cable crossing, a haul-road crossing and runoff from a nearby compound.

The Applicant should therefore identify the maximum number of work fronts operating simultaneously and assess ecological disturbance at the level of:

- each maternity colony;
- each pond network;
- each designated site;
- each sensitive watercourse reach;
- each botanically important lane;
- and each connected hedgerow network.

A general conclusion that every individual effect is temporary does not demonstrate that the network remains functional while numerous temporary effects occur together.

8.19.2 Cumulative effects with other development

The second level concerns East Pye acting together with other plans and projects affecting the same ecological receptors.

Norfolk County Council identifies an exceptional concentration of proposed energy infrastructure in Norfolk. Its Relevant Representation refers to Tasway Energy Park, The Droves Solar Farm, High Grove Solar Farm, Norwich to Tilbury and the grid works associated with Hornsea Project Three. It is concerned about the clustered and cumulative effects on Norfolk's environment and local communities.

South Norfolk Council likewise identifies Tasway, Norwich to Tilbury and other consented and proposed energy and TCPA developments as creating cumulative landscape, ecological, community and economic impacts. It specifically identifies potential loss of habitat and biodiversity and warns that overlapping construction programmes may extend the effects over years rather than months.

The LLFA supports inclusion of proposed but unconsented schemes where their programmes and locations make cumulative effects reasonably foreseeable, particularly because several solar and BESS developments could be constructed concurrently and affect the same downstream flood and drainage systems.

The ecological assessment must therefore consider not only other solar NSIPs but all development capable of affecting the same populations, corridors and catchments, including:

- solar and BESS proposals;
- overhead lines, pylons and substations;
- road and highway works;
- strategic and local housing allocations;
- commercial and industrial development;
- drainage and flood-management works;
- and other infrastructure requiring vegetation removal, lighting or construction access.

The relevant question is not whether another development is of the same type as East Pye. It is whether it affects the same ecological receptor or ecological process.

Shared bat and woodland networks

Other solar, grid, road and housing development may remove or illuminate hedgerows, woodland edges and feeding areas used by the same barbastelle colonies. A colony may tolerate one localised disturbance where a wide network of alternative habitat remains. It may not tolerate repeated reduction of that network by several projects.

The Norfolk Barbastelle Study Group describes the South Norfolk Claylands as supporting a metapopulation dependent upon scattered woods, high hedges, pollarded trees, open fields and commons. The Core Sustenance Zones of six colonies intersect or adjoin East Pye, while further colonies are predicted or remain unsurveyed.

That evidence requires cumulative assessment across the colony landscape rather than only within East Pye's Order Limits. The Applicant should map other development against:

- all confirmed and probable maternity colonies;
- six-kilometre Core Sustenance Zones;
- known or probable commuting routes;
- woodland and riparian networks;
- and areas of high recorded bat activity.

The analysis should identify the total amount and distribution of habitat removed, illuminated, enclosed or disturbed by all relevant development.

Shared pond and amphibian networks

Housing, roads, solar development and grid infrastructure may affect different components of the same great crested newt metapopulation. One project may affect a breeding pond, another a terrestrial refuge and another the hedge or ditch connecting them.

The cumulative assessment should therefore use pond clusters and terrestrial dispersal networks rather than administrative development boundaries. It should identify:

- ponds lost, shaded or altered;
- terrestrial habitat converted or fragmented;
- roads and construction corridors crossed;
- drainage changes;
- and the combined availability of compensation habitat.

A district-level licence for one project does not demonstrate that the total landscape remains ecologically functional for the population.

Shared watercourses and catchments

Multiple solar, BESS, road, housing and grid schemes may discharge to, cross or alter the same tributaries and groundwater bodies. The effects may include sediment, nutrients, hydrocarbons, drilling fluids, changed runoff, altered infiltration, culverting, bank disturbance and invasive-species transfer.

Catchment-level assessment is particularly important where individual developments each conclude that their contribution will be small. Several small sediment or runoff changes may combine downstream, especially during the same rainfall event or construction period.

The LLFA's concerns about incomplete ordinary-watercourse mapping, surface-water flow paths, drainage design and overlapping schemes demonstrate why a parcel-by-parcel assessment is inadequate.

The cumulative assessment should identify, for every relevant development:

- receiving watercourse and discharge point;
- construction period;
- disturbed area;
- crossing method;
- dewatering requirement;
- pollution and sediment controls;
- and downstream ecological receptors.

The same exercise should be undertaken for groundwater where developments involve piling, foundations, cable trenches, infiltration drainage or contaminated land within the same groundwater body.

Shared verge and hedgerow networks

Road improvements, AIL movements, housing accesses and solar construction traffic may affect the same rural lanes and species-rich verges. A verge may be damaged by one project's widening works and then subjected to years of overrun or repeated construction traffic from another.

The specialist botanical evidence identifies several rare plant populations occupying extremely narrow roadside strips. The cumulative effect cannot be understood by adding the number of square metres permanently removed by each project. It must include compaction, vehicle overrun, drainage alteration, repeated cutting and loss of connectivity between surviving colonies.

8.19.3 Effects interacting across receptors and impact pathways

The third level is the interaction of different pressures upon the same species, habitat or ecological network.

An ecological receptor does not experience the Scheme in separate chapters. A bat does not experience ‘lighting’ independently from ‘noise’ and ‘hedgerow loss’. A watercourse does not experience ‘hydrology’ separately from ‘sediment’, ‘pollution’ and ‘construction disturbance’.

Bats

A maternity colony may be affected simultaneously by:

- loss of a roost or potential roost tree;
- disturbance noise and vibration;
- illumination of the woodland edge;
- temporary severance of hedges;
- reduction in invertebrate prey;
- loss of foraging land;
- and increased vehicle movement.

Each effect may be classified as minor when examined alone. Their interaction may reduce the suitability of the maternity landscape more substantially than the individual classifications suggest.

The analysis should therefore determine whether each colony retains, throughout every construction phase:

- sufficient undisturbed roost resource;
- more than one dark and continuous commuting route;
- adequate foraging habitat;
- and freedom from disruptive noise and lighting during sensitive periods.

Great crested newts and reptiles

For amphibians and reptiles, the relevant interaction may include habitat clearance, trench mortality, fragmentation by roads and tracks, loss of refuges, altered drainage and disturbance during hibernation or breeding seasons.

The existence of retained habitat outside a trench does not resolve the effect if the trench, haul road or fence prevents movement between ponds, foraging habitat and hibernation sites. The assessment must consider the ecological network at the time when several work fronts are open.

Birds

Breeding and wintering birds may experience:

- physical habitat loss;
- construction noise;
- repeated human and vehicle activity;
- lighting;
- visual enclosure;

- loss of feeding habitat;
- and displacement from neighbouring developments.

For farmland birds, the interaction between panel occupation, screening planting and disturbance is especially important. Planting which mitigates landscape effects may reduce the openness needed by skylark or lapwing. The cumulative assessment should not count the planting solely as ecological enhancement without accounting for that species-specific consequence.

Watercourses and aquatic species

Aquatic receptors may experience sediment release, altered flow, temporary crossings, pollution, drilling-fluid escape, invasive-species transfer, EMF and loss or illumination of riparian habitat.

The Environment Agency's concerns about eel, EMF, aquatic insects and riparian management demonstrate that these pathways overlap. A watercourse reach may retain its physical channel while its ecological function is degraded through several interacting pressures. The assessment should therefore consider the full aquatic receptor, including channel, substrate, banks, riparian vegetation, groundwater inputs, water quality, fish movement and invertebrate lifecycle.

Woodland, trees and hedgerows

A retained tree or woodland edge may be exposed simultaneously to root compaction, changed drainage, dust, lighting, edge disturbance, pruning and loss of adjoining hedges. No tree may be recorded as felled, yet delayed decline or reduced ecological function may result.

The cumulative arboricultural and ecological assessment should therefore extend beyond direct removal and include all activities within root-protection areas and ecological buffers.

Why point mapping and parcel-by-parcel assessment are inadequate

BEPS' review of the cumulative material identifies that surrounding developments are represented principally as points rather than by their actual red-line boundaries, cable corridors, substations, highway routes, construction areas and zones of influence. This presentation conceals whether developments overlap spatially or affect the same receptor.

A point symbol cannot show:

- whether Tasway and East Pye affect the same bat Core Sustenance Zone;
- whether Norwich to Tilbury crosses the same hedgerow or woodland network;
- whether several BESS or housing sites discharge into the same tributary;
- whether construction traffic from several schemes uses the same botanically important lane;
- or whether multiple compounds operate close to the same designated site.

Cumulative ecology requires spatially explicit overlays. At minimum, the Applicant should provide GIS mapping showing:

- the full red-line and working boundaries of other schemes;
- construction and operational zones of influence;
- confirmed and probable bat colonies and Core Sustenance Zones;
- principal hedgerow and woodland connections;
- ponds and amphibian networks;
- designated and locally important sites;
- botanical hotspots and RNRs;
- surface-water catchments and groundwater bodies;
- and the anticipated construction and replacement programmes.

The assessment should then identify shared receptors by name and location, rather than relying only upon broad categories such as 'ecologically designated sites'.

HRA in-combination effects

The Habitats Regulations in-combination assessment must remain distinct from the EIA exercise. Even where East Pye's effect alone is considered non-significant, the Applicant must consider other plans and projects affecting the same European site and qualifying feature. The Planning Inspectorate's current guidance identifies projects under construction, permitted but unbuilt developments, submitted applications, projects on the national infrastructure programme and relevant development-plan proposals as matters potentially requiring consideration.

Where there is genuinely no pathway from East Pye to a European-site qualifying feature, there will ordinarily be no mechanism for an in-combination effect through that pathway. But that conclusion depends upon the asserted absence of the pathway being scientifically robust.

If further evidence identifies:

- hydrological connectivity;
- use of the Order Limits as functionally linked land;
- or a connection between an affected mobile population and a European-site qualifying population,

the HRA must then assess other plans and projects affecting the same site and feature. It would not be sufficient to rely upon the EIA cumulative schedule or Chapter 19's minor-effect threshold.

Overstatement of operational benefits

Chapter 19 predicts significant beneficial effects for designated sites and priority habitats from new habitat and reduced agricultural chemical use.

Those benefits should be acknowledged where they are supported by evidence. They should not be treated as cancelling the adverse effects discussed above.

The conclusion assumes that:

- habitat creation reaches its target condition;

- riparian enhancements are implemented;
- BNG measures are secured consistently in the OLEMP;
- replacement works do not damage established habitat;
- lighting and operational activity do not degrade corridors;
- and habitats remain throughout operation and decommissioning.

The Environment Agency has identified that riparian measures credited in the BNG Report are not carried consistently into the OLEMP. Natural England seeks stronger lifetime management, monitoring and remedial provisions. NWT considers further design refinement necessary before the Scheme can be regarded as ecologically acceptable.

The claimed beneficial effects should therefore be described as predicted and conditional. They should not be used to screen out adverse cumulative pathways or to reduce the need for receptor-specific analysis.

Required cumulative ecological assessment

BEPS submits that the Applicant should be required to provide a revised cumulative ecology assessment which:

- Separates:
    - intra-project effect interactions;
    - inter-project cumulative effects; and
    - Habitats Regulations in-combination effects.
- Removes the automatic exclusion of negligible effects where several such effects may act upon the same sensitive receptor.
- Assesses named species populations and ecological networks, not only designated sites and broad priority-habitat groups.
- Maps the cumulative effects of all East Pye construction compounds, hedgerow crossings, lit areas, cable works, access routes and highway works.
- Assesses the maximum number of simultaneous work fronts and the effect of construction phasing.
- Maps the full spatial extent and zones of influence of other relevant solar, BESS, grid, highway and housing developments.
- Undertakes colony-level cumulative assessment for barbastelle and other important bats.
- Undertakes pond-network and terrestrial-habitat assessment for great crested newts.
- Undertakes catchment-level assessment for the River Tas, Hempnall Beck and other connected water systems.
- Assesses cumulative damage to species-rich verges, RNRs, hedgerows, veteran trees and woodland-edge networks.
- Examines interacting pathways, including:
    - noise and lighting;
    - lighting and hedgerow severance;
    - compaction and drainage change;
    - sediment and chemical pollution;
    - habitat loss and displacement;
    - and repeated construction and replacement disturbance.

- Identifies measurable cumulative thresholds and avoidance actions rather than relying only upon professional judgment.
- Revises the assessment whenever a relevant neighbouring scheme, survey result or construction programme changes materially.
- Reassesses the claimed operational ecological benefits against the secured OLEMP, full replacement scenario and post-decommissioning habitat outcome.

Overall conclusion

The Applicant's cumulative ecology case is too dependent upon the conclusions of individual parcel and topic assessments. Those assessments repeatedly treat habitat losses as small, temporary or locally reversible. They do not demonstrate that the ecological network remains functional when the effects are added across the Scheme, combined with other development and experienced simultaneously through different environmental pathways.

The evidence from Natural England, the Environment Agency, Norfolk Wildlife Trust, Norfolk County Council, South Norfolk Council, the Norfolk Barbastelle Study Group and local specialists identifies shared concerns about:

- incomplete baselines;
- hydrological and groundwater pathways;
- repeated hedgerow severance;
- bat colony landscapes;
- lighting;
- construction compounds;
- designated sites;
- watercourses;
- roadside habitat;
- and the continuing deferral of mitigation detail.

The appropriate unit of assessment is not the individual panel field, hedge gap or compound. It is the affected colony, habitat network, pond system, woodland complex or catchment.

Until those receptors are assessed spatially and cumulatively, the Applicant has not demonstrated that a succession of individually 'minor', 'temporary' or 'not significant' effects will remain ecologically insignificant when experienced together.

8.20 Application of the mitigation hierarchy: why avoidance must be tested first

The mitigation hierarchy must be applied sequentially. Harm should first be avoided; unavoidable effects should then be minimised; damaged habitat should be restored where restoration is genuinely possible; and compensation should be considered only for residual harm that remains after those prior stages have been exhausted. Enhancement and BNG do not reverse that sequence. The August 2026 NPPF reinforces that sequencing. Policy N2 requires significant biodiversity harm first to be avoided through location on an alternative site with less harmful impacts where such harm cannot otherwise be avoided. The policy does not mean that every ecological constraint automatically requires deletion of development, but it does require the

Applicant to demonstrate why avoidance was not reasonably available before reliance is placed on minimisation, restoration or compensation.

The central defect in the Applicant's ecological case is that it begins too late in the hierarchy. East Pye Solar remains a dispersed development across a landscape already known to support nationally important bats, multiple barbastelle maternity colonies, ancient woodland, veteran trees, species-rich hedgerows and verges, stewardship-managed farmland-bird habitat, chalk streams and protected aquatic species. The Applicant then relies upon buffers, construction controls, later planting, reinstatement and BNG to manage the consequences of developing within that landscape. That is not the same as demonstrating that the principal ecological conflicts have been avoided.

Avoid

Avoidance has not been achieved.

Avoidance requires the development to be located and designed so that the most important receptors and ecological functions are not exposed to the impact in the first place. It is not satisfied merely because panels, trenches or accesses have been moved a short distance while remaining inside the same woodland network, maternity-colony support landscape, pond system, botanical lane or hydrological catchment.

The Scheme continues to extend through a connected South Norfolk Claylands landscape of woodland, hedgerows, pollarded and mature trees, ponds, ditches, verges, open fields and watercourses. The Norfolk Barbastelle Study Group describes those features as providing the roosting, feeding and landscape connectivity necessary to support a barbastelle metapopulation. Its evidence identifies the Core Sustenance Zones of six maternity colonies as lying within or abutting the Scheme; two colonies are beside the proposed cable route, and one would also be surrounded by solar arrays.

The Study Group has confirmed a maternity colony at Little Wood by radiotracking, with a peak pre-parturition emergence count of 36 and an expected post-parturition colony size of approximately 55, which it regards as large in the Norfolk context. Acoustic evidence also predicts maternity colonies at Brooke Wood and Lower Spring Wood, while the status of Spring Wood at Hempnall remains unresolved. The Study Group calls for further radiotracking and assessment of additional woods and states that the effects of East Pye cannot properly be assessed without a full understanding of barbastelle distribution and habitat use throughout the Scheme area.

The Applicant's own bat evidence, as summarised in BEPS's full Relevant Representation, records that the Order Limits support a bat assemblage of national importance, that barbastelle activity was widespread, and that the Scheme falls within overlapping maternity-colony Core Sustenance Zones. That is not a receptor that can be protected simply by retaining a percentage of the total hedgerow length. It is a landscape-scale constraint affecting the acceptability of panel parcels, cables, accesses, compounds, lighting and substations throughout the Scheme.

Avoidance has also not been demonstrated for botanical interests. The specialist botanical objection states that there has been no systematic botanical recording across all land affected or potentially affected by the Scheme. It identifies sulphur clover, dyer's greenweed, spiny restharrow, crosswort and pepper saxifrage within lane and verge systems liable to road widening, traffic pressure and access works. It also identifies ancient assemblages associated with former commons, drove roads and boulder-clay pasture, including communities linked to established fungi and seedbanks which would not be reproduced by sowing a replacement mixture elsewhere.

The botanists expressly call for entrances and traffic routes to be designed around those areas rather than through them. Their conclusion is that avoiding damage must precede reliance upon BNG and that the loss or partial loss of the identified botanical sites would be highly unlikely to be compensated because of their ancient and cultural origins.

The same failure appears in relation to ancient woodland and veteran trees. Six ancient woodland parcels are identified adjacent to the Scheme: Pope's Wood, Doyly's Grove, Saxlingham Grove, Little Wood, Ringers Grove and Spring Wood. The Forestry Commission advises that ancient woodland is irreplaceable and that both direct and indirect effects must be considered, including isolation, enclosure, root damage, compaction, pollution, dust and interruption of woodland connectivity. It warns particularly against development surrounding woodland on several sides and requires Root Protection Areas to be protected from trenching, vehicle movements, storage and contamination.

Natural England now treats ancient woodland and veteran-tree matters as capable of resolution, but only subject to the Applicant's proposed 30-metre protection being secured consistently across the LEMP, CEMP and DEMP, together with BS5837-compliant survey, strict Root Protection Area controls, no-dig methods, arboricultural supervision and controls on compaction, dust and runoff. That qualified position does not demonstrate that the first step of the hierarchy has been completed. It shows that significant protection still depends upon later control documents and final construction design.

Avoidance has not been demonstrated for the aquatic network either. Evidence submitted to the Examination records a confirmed white-clawed crayfish population in the River Tas at Saxlingham Thorpe, including Norfolk Rivers Trust records from 2021 and 2022. The Applicant's aquatic assessment relied upon a desk-study result stating that no records had been returned within its search area, while its site work was undertaken during unusually dry conditions and did not establish absence.

The Examining Authority has already determined that further information is required. Its Rule 6 letter records concerns from South Norfolk Council, Norfolk Wildlife Trust and BEPS; notes that dry conditions may have caused the aquatic assessment to under-represent wetted extent and habitat availability; and asks the Applicant to report on further white-clawed crayfish work or provide a robust justification for not undertaking it.

The Applicant cannot demonstrate avoidance of a protected aquatic receptor before its distribution and the relevant catchment pathways are known. Cable crossings, HDD, construction runoff, sediment mobilisation, drainage changes and biosecurity risk remain located within the connected River Tas and Hempnall Beck system.

The same applies to farmland birds. Parts of the Scheme have been subject to long-running Environmental or Countryside Stewardship management intended to support declining farmland birds. BEPS's review records that those agreements have maintained open nesting and feeding conditions over more than a decade, including land used by skylark and other Birds of Conservation Concern. Replacing that established management with arrays, fencing, tracks and screening planting is not avoidance; it is displacement of a functioning, publicly funded conservation regime.

Norfolk Wildlife Trust has proposed genuine avoidance responses, including removal of Site 3 because of its relationship with Spring Wood, ancient woodland and bats, and relocation of sensitive cable sections rather than reliance upon construction mitigation. These proposals demonstrate that the ecological objection is not limited to asking for wider margins around an otherwise unchanged design. The location and extent of development are themselves in issue.

The Applicant has therefore not shown that it began with the ecological constraints and removed development from the most sensitive parts of the landscape. It has largely retained the dispersed Scheme and attempted to accommodate the constraints through buffers, management plans and later habitat creation.

Minimise

The proposed minimisation measures are insufficient because they do not remove the Scheme's structural fragmentation effects.

Minimisation can reduce the magnitude of an impact where development is otherwise acceptable. It cannot convert an unsuitable location into a suitable one merely by introducing generic stand-offs or good-practice construction controls.

The Applicant relies extensively upon:

- woodland and watercourse buffers;
- hedgerow reinstatement;
- sensitive lighting;
- HDD at some crossings;
- seasonal restrictions;
- pollution-prevention measures;
- Ecological Clerk of Works supervision;
- later species strategies;
- and habitat creation under the OLEMP.

Those measures may reduce particular risks. The relevant question is whether they address the actual ecological functions exposed to harm.

For barbastelles, the Applicant has not yet fixed a complete network of dark corridors, quantitative lighting limits, colony-specific flight routes or the relationship between all accesses and each maternity-colony support landscape. The Study Group's evidence shows that further colonies may

be present and that several candidate woods remain insufficiently investigated. A buffer around the edge of a known woodland cannot protect a route or foraging area that has not yet been identified.

Generic hedgerow buffers also do not answer repeated severance. Numerous cable, access and highway crossings may each be described as small or temporary, but the cumulative effect depends upon their location within the flight network, the duration of each opening, lighting, alternative routes and the time required for replanted hedges to become functional. Retention of most hedgerow length does not demonstrate retention of connectivity.

Natural England continues to classify protected-species matters as amber. The Outline Protected Species Mitigation Strategy anticipates that licences may be required for water vole or otter, great crested newts, roosting bats and badger-sett closures, and Natural England asks for clarification about whether licences have been sought. It also advises that this work should be undertaken at the earliest opportunity.

That position is inconsistent with treating later method statements and contractor-led licensing as evidence that current minimisation is already effective. Until the relevant species distribution, impact and licence pathway are understood, the Applicant cannot show that the chosen layout represents the least harmful practicable design.

For aquatic receptors, the Environment Agency has identified that the formal design controls may permit only a 10-metre stand-off from watercourses even though wider separation is shown indicatively. It seeks wider secured buffers where watercourses may support diverse aquatic-invertebrate communities. It has also identified potential attraction of aquatic insects to polarised light reflected from panels, a lifecycle effect not addressed in the Applicant's assessment.

The Agency separately disagrees with the Applicant's treatment of operational EMF effects on European eel and asks for evidence that burial depth will reduce the field at the watercourse bed below 12 microtesla. It also considers that freshwater fish should be valued at county rather than local importance because of the eel receptor.

These are examples of minimisation measures that remain either unsecured or unproven. The Applicant cannot rely upon cable burial, wider buffers or operational separation without fixing the parameter and demonstrating that it achieves the necessary ecological outcome.

The same concern applies to piling, noise and vibration. South Norfolk Council has rejected percussive piling as the preferred approach and supports quieter screw-pile methods. Bat-specific effects have not been assessed adequately across each maternity woodland, roost network and sensitive season. A general noise chapter based largely upon human receptors is not evidence that disturbance of maternity colonies has been minimised.

For botanical receptors, mitigation based upon standard verge protection, translocation or reseeding is not adequate where the baseline survey has not identified all narrow colonies, field-edge assemblages, seedbanks and associated fungi. The botanists seek surveys by a FISC level 5 or higher botanist in June and again after harvest but before sowing. Until those surveys are completed and reconciled with access, highway and cable plans, it is impossible to demonstrate

that road works and vehicle movements have been minimised around the most important locations.

The Applicant's reliance upon the OLEMP also remains too generic. BEPS's review records that it does not fix the dark-corridor network, lighting thresholds, corridor-permeability standards or species-specific flight-route protection. Its management and monitoring duration are to be determined later, while the relationship between habitat creation, replacement access and decommissioning remains unresolved.

The Environment Agency has identified a concrete inconsistency: riparian enhancement and reduced encroachment credited in the BNG Report are not carried through into the OLEMP. It requires those measures, including invasive-species controls, to be secured expressly.

Minimisation therefore remains incomplete both spatially and legally. Many measures are generic, several are deferred, and some are not consistent across the documents intended to secure them.

Restore

Restoration cannot provide immediate or certain functional equivalence for the principal receptors affected by East Pye.

Restoration is most credible where a temporarily disturbed habitat can be returned to its former type, condition and ecological function within a reasonable and predictable period. That is not the case for many of the receptors identified here.

Ancient woodland settings and veteran trees cannot be restored through ordinary replacement planting. The Forestry Commission identifies ancient woodland as irreplaceable because of its long continuity and undisturbed soils and ecological features. It also warns that root damage, compaction and contamination may lead to deterioration even where trees remain standing.

Delayed decline is particularly important. A veteran tree or mature woodland edge may survive the construction period but deteriorate years later because of severed roots, altered drainage, soil compaction or dust and pollution effects. Planting a young tree does not restore the cavities, bark features, deadwood, fungi, root systems and habitat continuity associated with the original.

Mature hedgerows cannot be restored immediately after cable or access works. A replanted hedge may take many years to regain height, density, shelter, associated trees and use as a dark bat route. Reinstatement of the physical line does not prove restoration of functional connectivity during the intervening period.

The same applies to the botanical assemblages identified by the specialist botanists. Those communities are associated with long-unploughed verges, old banks, field entrances, ditches, parish boundaries, historic commons and drove roads. The objection records that some assemblages occur in strips only 30–50 centimetres wide and may depend upon particular soils, fungi and seedbanks. Their removal or compaction cannot reliably be reversed by sowing a seed mixture on a different verge.

Established bat routes are similarly not restored simply because new hedges or woodland belts are proposed. Barbastelles use a network of known routes, alternative roosts and feeding areas within the maternity landscape. New planting may eventually become useful, but its location, structure, darkness and continuity must match the function lost. There is no evidence that a newly planted route will be used in the same way or within the period required to avoid an effect upon the colony.

Aquatic restoration is also uncertain. Sediment deposition, drilling-fluid escape, pollution, altered groundwater inputs or invasive-species transfer may affect substrate and species populations beyond the immediate work area. For a small, isolated white-clawed crayfish population already exposed to wider catchment pressures, post-event remediation may not restore the previous population or ecological condition.

Restoration is especially weak as a response to the loss of stewardship-managed farmland. The value of that land derives from continued management and established use by birds over many years. Grassland beneath panels, screening belts or a separate mitigation parcel do not automatically reproduce open nesting conditions, landscape-scale visibility, crop structure or seasonal food availability.

The Applicant may be able to reinstate some ordinary grassland, temporary cable strips and recently planted hedges. That does not establish restoration of the irreplaceable, mature, species-specific and historically continuous functions at the centre of this objection.

Compensate

Compensation and BNG cannot cure the remaining legal and ecological conflicts.

The Applicant relies upon claimed gains of 37.42% for habitats, 31.35% for hedgerows and 16.08% for watercourses. Those figures may be relevant as a projected habitat-accounting outcome, but they do not determine whether the preceding stages of the mitigation hierarchy have been satisfied.

BNG cannot compensate for irreplaceable habitats. Ancient woodland and ancient or veteran trees derive their value from continuity, age, soil, fungi, deadwood, cavities and ecological relationships that cannot be reproduced within the life of the project. The existence of a positive total habitat balance cannot make their loss or deterioration acceptable.

BNG cannot authorise or cancel a protected-species offence. Where works would damage a breeding site or resting place, obstruct roost access or unlawfully disturb a European Protected Species, the relevant legal tests must be addressed. Habitat units created elsewhere do not determine whether a licence can be granted.

BNG cannot compensate automatically for the loss of maternity-colony supporting function. A new hectare of grassland, woodland or scrub is not necessarily equivalent to a particular dark route, woodland compartment, riparian feeding corridor or field used by a maternity colony. The relevant question is whether the colony retains a viable and connected support landscape, not whether the Scheme produces a positive aggregate habitat score.

BNG cannot compensate for hydrological deterioration. The Water Framework Directive and ordinary ecological assessment require effects on water quality, flow, substrate, fish, crayfish and invertebrates to be considered directly. Watercourse units cannot be traded against deterioration of a chalk stream or a pollution effect on a protected population.

BNG cannot compensate for extinction or displacement risk. A small or isolated population may be lost before replacement habitat develops or may not colonise the habitat created for it. Temporal multipliers within a metric do not provide habitat during the period of functional absence and do not guarantee colonisation or population viability.

BNG cannot compensate automatically for the loss of stewardship habitat. Land managed for years under targeted prescriptions for skylark, lapwing and other farmland birds has an established function. Its replacement must be assessed in terms of species carrying capacity, management continuity and long-term security, not only broad habitat type.

The botanists make the same point from a different perspective. They state that BNG claims will be meaningless if existing botanical value has not been identified and that ancient assemblages, local fungi and source seedbanks are unlikely to be compensated if their sites are damaged.

The Environment Agency's evidence further shows that even the claimed compensation package is not yet secured consistently. Riparian enhancements used in the BNG calculation are missing from the OLEMP, while wider watercourse buffers shown indicatively are not fixed in the controlling parameters.

Compensation is therefore being asked to carry more weight than it can support. It cannot replace compliance with protected-species law, protection of irreplaceable habitat, no-deterioration obligations, population-level assessment or the first three stages of the mitigation hierarchy.

Evaluative conclusion on the mitigation hierarchy

The Scheme has not demonstrated a sequential and effective application of the mitigation hierarchy.

It has not avoided the most sensitive landscape. It remains distributed across overlapping barbastelle colony-support areas, beside six ancient woods, through a chalk-stream catchment, across stewardship land and along narrow verges containing potentially irreplaceable botanical assemblages.

It has not minimised those conflicts sufficiently because final access, lighting, species licensing, watercourse buffers, construction methods and several species-specific controls remain incomplete, generic or deferred.

It cannot restore many of the affected functions within an ecologically meaningful period. Ancient woodland settings, veteran-tree functions, mature dark hedgerows, established maternity-colony routes, rare botanical assemblages and long-managed farmland-bird habitat are not immediately reproducible.

It cannot rely upon BNG and compensation to answer protected-species, irreplaceable-habitat, water-quality, population-viability or functional-connectivity objections.

Avoidance in this case does not mean minor micrositing within the same ecological network. Moving a panel line a few metres, drilling beneath one feature, or providing a narrow buffer does not avoid development within the same maternity-colony landscape, woodland complex or catchment.

Avoidance means one or more of the following:

- relocation of the Scheme to a materially less sensitive landscape;
- substantial removal of development areas and cable or access routes from the identified ecological networks;
- redesign at a scale that preserves whole maternity-colony, woodland, pond, verge and watercourse systems;
- or refusal of the Scheme as presently conceived.

On the present evidence, BEPS submits that refusal is the only outcome that applies the first and most important stage of the mitigation hierarchy to the Scheme as a whole.

8.21 Overall conclusion

East Pye Solar is proposed within an ecological landscape which the Applicant's own evidence identifies as nationally important for bats. It lies within overlapping barbastelle maternity-colony support areas, while independent radiotracking has confirmed a large maternity colony at Little Wood and acoustic work predicts further colonies at Brooke Wood and Lower Spring Wood. Additional woods remain insufficiently assessed, and the Norfolk Barbastelle Study Group concludes that the effects of the Scheme cannot be understood without fuller evidence of colony distribution and habitat use.

The baseline is also incomplete for other key receptors. Specialist botanists identify nationally and locally important species and ancient plant assemblages in verges, field margins, lane networks and Roadside Nature Reserve locations exposed to highway, cable and access works, but no systematic full-area botanical survey has been completed. A confirmed white-clawed crayfish population exists within the River Tas system, and the Examining Authority has already required further information because the Applicant's aquatic surveys were undertaken in unusually dry conditions and may have under-represented available habitat.

These concerns sit alongside six adjacent ancient woods, numerous ancient or veteran and potential-roost trees, hydrologically connected chalk streams, mature hedgerow networks and long-established stewardship land supporting declining farmland birds. They are not isolated receptors. They form a connected Claylands system in which woodland, hedgerows, verges, ponds, fields, ditches, groundwater, Hempnall Beck and the River Tas perform interdependent ecological functions.

The statutory and specialist representations do not establish that every impact is incapable of resolution, but they identify persistent uncertainty and incomplete control. Natural England retains

protected species as an amber matter and seeks clarity on licensing and stronger lifetime management. The Environment Agency challenges the fish valuation and EMF assessment, requires wider watercourse buffers and identifies a mismatch between riparian BNG commitments and the OLEMP. Norfolk County Council warns that absence of white-clawed crayfish signs does not establish absence. The Forestry Commission, Norfolk Wildlife Trust, South Norfolk Council, local tree specialists, botanists and the Norfolk Barbastelle Study Group all require greater avoidance, connectivity protection or further evidence.

The resulting ecological case rests too heavily upon BNG percentages, outline plans, later surveys, future licensing and generic buffers. Those mechanisms cannot replace a complete baseline or compensate for irreplaceable habitat, protected-species offences, maternity-colony function, hydrological deterioration or the loss of established stewardship habitat. The Scheme has not demonstrated that the mitigation hierarchy has been applied at the necessary landscape scale and should therefore be refused on ecology and biodiversity grounds.

8.22 Remedies sought

8.22.1 Primary remedy: refusal

BEPS requests that the Examining Authority recommend that development consent be refused.

The Scheme has not avoided a landscape containing nationally important bat interests, overlapping barbastelle maternity-colony networks, adjacent ancient woodland, veteran and potential-roost trees, rare and under-recorded botanical assemblages, chalk streams, protected aquatic species and stewardship-managed farmland-bird habitat. BEPS's case is not that every remaining ecological uncertainty, considered individually, compels refusal. The objection is cumulative: important baseline gaps remain in relation to botany, aquatic ecology and bat functional habitat; several of those matters may determine the location or acceptability of development; the Scheme lies within a nationally important bat landscape and adjacent to irreplaceable habitats; and the Applicant continues to rely materially upon future survey, detailed design and management to support conclusions of limited residual effect.

The impacts arise from the location, extent and dispersed structure of the Scheme rather than from a small number of correctable details. They include habitat fragmentation, repeated hedge crossings, lighting, construction noise and vibration, root and verge damage, catchment-scale pollution and sediment pathways, displacement of farmland birds, and the risk that replacement and decommissioning works will disturb habitats created or matured during operation.

Those effects cannot reliably be removed through generic buffers, later method statements, habitat reinstatement or a positive BNG metric. Where the first stage of the mitigation hierarchy has not been satisfied and the remaining effects engage protected species, irreplaceable habitat and interconnected ecological networks, the appropriate remedy is refusal rather than further reliance upon post-consent controls.

8.22.2 Alternative case: minimum requirements before any recommendation

If the Examining Authority is not presently minded to recommend refusal, BEPS submits that no favourable recommendation should be made until the following minimum evidence, design changes and legal controls have been provided, examined and secured.

1. Full-season botanical surveys

The Applicant should undertake comprehensive surveys of all land affected or capable of being affected by the authorised development, including:

- solar and BESS parcels;
- cable routes and full cable working widths;
- permanent and temporary access routes;
- HGV and AIL highway works;
- visibility splays;
- road-widening and verge-strengthening areas;
- construction compounds and laydown areas;
- Roadside Nature Reserves and adjoining habitat;
- all affected field margins, field entrances, parish boundaries, hedges and ditches;
- and land liable to temporary vegetation removal or vehicle overrun.

The surveys should be undertaken by botanists of at least FISC level 5 and should include a June survey for grassland, verge and boundary vegetation and a post-harvest, pre-sowing survey for arable flora and field-edge communities, as requested by the specialist botanists.

The results should be mapped at a scale capable of identifying narrow colonies, fungi-associated assemblages and source seedbanks. The final design should then avoid those features, and the BNG baseline should be recalculated where the completed evidence changes habitat type, condition or strategic significance.

2. Completed breeding- and wintering-bird evidence

The Applicant should provide a complete and current breeding- and wintering-bird baseline covering all relevant parcels, access works, cable routes and mitigation land.

The assessment should address, at species and population level:

- skylark;
- lapwing;
- turtle dove;
- yellowhammer;
- linnet;
- corn bunting;
- starling;
- wintering raptors and waders;

- and other Birds of Conservation Concern recorded within or functionally linked to the Scheme.

The Applicant should map breeding territories, roosting and feeding areas, winter use and Countryside Stewardship options and should quantify the carrying capacity of any replacement land. Mitigation should be species-specific, secured before displacement and maintained for the whole period during which the original habitat is unavailable.

3. Further barbastelle radiotracking and functional-landscape assessment

The Applicant should undertake the additional work identified by the Norfolk Barbastelle Study Group, including radiotracking sufficient to confirm or resolve maternity-colony status at Brooke Wood, Lower Spring Wood and Spring Wood at Hempnall and assessment of the additional candidate woodlands identified in the specialist report.

The work should be sufficient to map:

- confirmed and probable maternity colonies;
- alternative roost networks;
- maternity-colony sizes;
- principal commuting routes;
- critical hedgerows, tree lines and watercourses;
- important foraging land;
- areas of overlap between colonies;
- and the relationship between those features and every panel parcel, cable route, access, compound, substation and lit work area.

The resulting information should inform substantial layout avoidance, not merely later licensing or ECoW supervision.

4. Fixed dark-corridor and lighting plan

A final, site-wide lighting plan should be submitted before any recommendation. It should identify all dark corridors and sensitive receptors and include:

- fixed quantitative lux limits;
- modelled horizontal and vertical light spill;
- controls on colour temperature and spectrum;
- restrictions on mobile and temporary lighting;
- actively controlled rather than wildlife-triggered security lighting where appropriate;
- emergency-lighting assumptions;
- monitoring points;
- and mandatory remedial action where limits are exceeded.

The plan should apply to construction, operation, replacement and decommissioning and should be secured through the DCO.

5. Bat-specific assessment of piling, noise and vibration

The Applicant should assess piling, construction noise, vibration, HDD, substations, BESS and traffic effects specifically against each confirmed and probable maternity colony, roost network and flight route.

The assessment should address sensitive seasons, duration, frequency, simultaneous work fronts and cumulative exposure. It should compare percussive piling with screw piles and other less disturbing alternatives and should adopt the least harmful practicable method.

No reliance should be placed solely upon human noise receptors or general construction standards to determine effects upon bats.

6. Direct white-clawed crayfish survey and catchment-scale aquatic assessment

The Applicant should undertake direct, seasonally appropriate survey for white-clawed crayfish within all relevant reaches of the River Tas, Hempnall Beck and connected tributaries and ditches within the ecological Zone of Influence.

The work should include:

- species presence and distribution;
- habitat suitability;
- eDNA and direct survey where appropriate;
- invasive signal-crayfish risk;
- crayfish-plague biosecurity;
- sediment and pollution pathways;
- HDD and crossing risks;
- construction runoff;
- hydrological and groundwater connectivity;
- cumulative effects;
- and downstream receptors.

The Examining Authority has already requested further information on this issue because dry survey conditions may have under-represented typical habitat.

7. Revised and secured watercourse buffers

The Applicant should produce a watercourse-by-watercourse buffer schedule based upon receptor sensitivity rather than a generic minimum.

Wider buffers should be required where necessary for:

- white-clawed crayfish;
- European eel;
- diverse aquatic-invertebrate communities;
- riparian mammals;

- chalk-stream function;
- designated habitats;
- groundwater-dependent ecosystems;
- or protection from lighting and polarised-light effects.

The buffers shown on indicative plans should be incorporated into the Works Plans, Design Principles, OLEMP, CEMP, OEMP and DEMP and should exclude panels, access, storage, compounds and lighting unless expressly justified.

8. Corrected BNG metric and secured riparian enhancements

The BNG calculation should be revised to reflect:

1. the final construction footprint;
2. all temporary and permanent habitat disturbance;
3. actual hedge crossings;
4. lighting and functional severance;
5. completed botanical evidence;
6. stewardship habitat function;
7. revised strategic-significance assumptions;
8. realistic target conditions and time to target;
9. replacement and decommissioning disturbance;
10. and the habitats retained after decommissioning.

The Environment Agency's identified inconsistency must be corrected by carrying all riparian enhancements and reduced encroachment credited in the BNG Report into the OLEMP and other controlling documents, together with explicit invasive-species measures.

9. Final LEMP and protected-species mitigation package

A final or substantially complete LEMP should be submitted during Examination rather than leaving material ecological outcomes to a post-consent plan.

It should fix:

- habitat locations and areas;
- species and provenance;
- planting densities;
- implementation dates;
- management prescriptions;
- monitoring periods;
- success criteria;
- failure thresholds;
- remedial actions;
- dark corridors;
- species-specific mitigation;
- and responsibility throughout operation, replacement and decommissioning.

The protected-species strategy should identify all current and possible licence requirements, survey validity, avoidance zones, seasonal restrictions, ECoW powers and the process for redesign where new evidence identifies a conflict.

10. Revised HRA and EPS licensing position

The Applicant should update the HRA where the additional survey, hydrological or functional-land evidence changes the assessed pathways or receptors.

The application should also provide a species-by-species EPS licence schedule identifying:

- the potentially licensable activity;
- affected receptor;
- location;
- survey evidence;
- avoidance and mitigation;
- alternatives;
- conservation-status assessment;
- and intended application programme.

Where a licence is material to deliverability, draft licence information and a Letter of No Impediment, or equivalent formal Natural England advice, should be provided. Natural England presently retains protected species as an amber issue and asks for clarity on the licence position.

11. Construction-footprint reconciliation

The Applicant should submit a single auditable plan and schedule showing every:

- hedge crossing or removal;
- affected tree and Root Protection Area;
- verge and Roadside Nature Reserve impact;
- cable working corridor;
- road-widening area;
- visibility splay;
- temporary compound;
- HDD launch and reception area;
- access and haul route;
- soil-storage area;
- drainage feature;
- and temporary or permanent habitat loss.

That schedule should be reconciled with the ecology assessment, arboricultural assessment, BNG metric, OLEMP and DCO powers. No habitat should be described as retained where the authorised works permit material construction disturbance or functional degradation.

12. Whole-life ecological assessment

The assessment should cover the entire 60-year life of the Scheme, including:

- routine operation;
- panel replacement;
- repeated BESS replacement;
- transformer and cable repair or replacement;
- vegetation management;
- drainage maintenance;
- emergency activity;
- decommissioning;
- and the post-decommissioning land use.

It should identify which mitigation and BNG habitats will remain, which will be disturbed or removed, which land may return to arable use and how mature habitats will be protected from replacement and decommissioning access.

13. Enforceable monitoring, remediation and long-term funding

Every mitigation measure relied upon in the ES should be tied to:

- a specific DCO Requirement or other enforceable mechanism;
- a measurable ecological standard;
- a named monitoring body;
- an independent verification process where appropriate;
- defined reporting intervals;
- stop-work and failure triggers;
- mandatory remedial action;
- and a clear duration.

Natural England has requested full-operational-life management, monitoring, habitat-performance indicators and remedial actions.

The obligations should bind the undertaker and any successor exercising DCO powers. Adequate ring-fenced and insolvency-protected funding should be secured for habitat establishment, replacement planting, monitoring, remediation, decommissioning and ecological restoration.

Final remedy position

These alternative requirements are minimum evidential and legal safeguards, not an acceptance that the present Scheme can necessarily be made ecologically acceptable.

Completion of the evidence may confirm that some routes or parcels cannot be delivered without unacceptable harm. The Applicant must retain a genuine capacity to remove, relocate or redesign those elements. It should not be entitled to respond to newly confirmed constraints solely through licensing, translocation, later compensation or a revised BNG calculation.

The primary remedy therefore remains refusal. The alternative case is that no recommendation should be made until the ecological baseline is complete, the most sensitive development is removed, the remaining effects are reassessed, and all necessary mitigation is specific, measurable, effective, enforceable and funded for the whole life of the Scheme.

Chapter 9: Water Environment

The water environment in this part of South Norfolk impacted by East Pye Solar is unusually complex, spatially extensive and functionally interconnected. The Scheme spans several surface-water catchments and a network of main rivers, ordinary watercourses, ditches, culverts, field drains and groundwater bodies, including the River Tas and Hempnall Beck chalk-stream system and the Waveney-linked Starston Brook and Broome Beck catchments. These systems cannot properly be considered in isolation because groundwater, surface water, drainage, soils and land use interact across the Order Limits and beyond them. Changes in one part of that system may therefore have consequences elsewhere: altered runoff, compaction, drainage or recharge can affect downstream flood risk and agricultural land; pollution or sediment can be conveyed through connected ditches and watercourses into chalk streams and ecologically sensitive habitats; disturbance of groundwater pathways may affect private drinking-water supplies and groundwater-dependent ecosystems; and changes to water levels, drainage patterns and the physical character of historic watercourses can also affect the setting, survival and legibility of historic landscape features and cultural heritage assets. The same source-pathway-receptor relationships may therefore engage ecology, human health, agriculture, flood risk, water quality, water resources and cultural heritage simultaneously. For that reason, BEPS submits that the water environment must be assessed as an integrated hydrological and hydrogeological system, rather than as a series of separate technical topics or individual site parcels, and that uncertainty in the underlying water-environment baseline has consequences across multiple chapters of the Environmental Statement.

9.1 Purpose and Overall Case

This chapter of the Written Representation addresses the adequacy of the Applicant's assessment of the water environment and the extent to which the Environmental Statement demonstrates that the East Pye Solar Scheme can be constructed, operated, maintained, repowered and decommissioned without unacceptable effects on groundwater, surface water, private water supplies, chalk streams, flood risk, water resources, groundwater-dependent habitats and downstream receptors.

BEPS's central case is that the application does not demonstrate, to the level necessary for Development Consent, that those effects are adequately understood or capable of being controlled. The principal deficiencies are interconnected rather than isolated. Uncertainty in the underlying hydrogeological understanding affects the reliability of the assessment of private water supplies, groundwater-dependent terrestrial ecosystems, Water Framework Directive compliance, contaminant migration, infiltration and drainage design, surface-water runoff, watercourse crossings, piling and trenchless construction, and the ability to contain polluted firewater from the BESS and substations.

This is important because the Applicant itself has always recognised that the water environment comprises both hydrology and hydrogeology. At scoping stage, its own report defined the topic as

including hydrology, hydrogeology, flood risk and water quality. It identified the River Tas, Hempnall Beck and Broome Beck as principal watercourses and recognised ordinary watercourse tributaries of the River Tas and Starston Brook. It also stated that groundwater was envisaged to be in broad continuity with water levels in the watercourses. That evidence makes it inappropriate to assess the Scheme as if groundwater, surface water, drainage networks and dependent receptors were essentially separate compartments.

The Planning Inspectorate's Scoping Opinion imposed clear requirements against that background. It declined to scope out water resources because the Scheme lies within an area identified as water stressed. It required a Flood Risk Assessment capable of addressing the sequential and exception tests where applicable, operational resilience over the Scheme's 60-year life, off-site flood risk, and the potential for solar infrastructure to increase runoff. It also required a Water Framework Directive assessment, or a screening assessment explaining why a full assessment was unnecessary, because the proposed development included uncertain watercourse and ditch crossings and because WFD waterbodies were present. Crucially, the Inspectorate also noted the existence of private water supplies within 250 m of the site, the absence of accurate location and abstraction data, and required the Environmental Statement to identify and assess the potential impacts on private water supplies and their buffers.

The same Scoping Opinion drew attention to the Environment Agency's concern that proposed HDD or other trenchless installation methods could interact with Principal or Secondary A aquifers, surface watercourses or sensitive ecological receptors and thereby introduce drilling fluids or mobilise contamination into controlled waters. The EA therefore required a hydrogeological risk assessment where those circumstances arose. It also required Foundation Works Risk Assessments or Piling Risk Assessments for the BESS, substations and other structures requiring deep foundations or piling because of the potential to create contaminant migration pathways into deeper groundwater units.

The application must therefore be judged against a relatively demanding evidential benchmark. The question is not simply whether the Applicant has now produced documents entitled 'Flood Risk Assessment', 'Water Framework Directive Assessment' and 'Water Resources Assessment'. The question is whether the evidence within those documents resolves the uncertainties identified at scoping and statutory consultation stages and provides a coherent, site-specific basis upon which the Examining Authority can be satisfied that likely significant effects have been properly assessed and that the proposed mitigation is technically feasible and effective.

BEPS submits that this has not yet been demonstrated. The later application documentation is more extensive than the PEIR material, but substantial uncertainty remains over the basic hydrogeological conceptualisation of the Scheme, the identification and vulnerability of private water supplies, the interaction between groundwater and surface water, the treatment of WFD catchments and connected minor watercourses, the effect of ground disturbance and piling, and the management of surface water and potentially contaminated firewater at the major infrastructure compounds.

The statutory consultees' concerns reinforce that conclusion. At PEIR stage, Norfolk County Council as Lead Local Flood Authority expressly disagreed with the Applicant's proposed scoping-out of flood risk, surface-water runoff and groundwater recharge effects. The LLFA said that the Applicant had underestimated the impermeable area, had not adequately investigated ground

conditions or the viability of infiltration, and had provided incomplete and inconsistent information. It also drew attention to existing flood-sensitive communities downstream of parts of the Scheme, including Saxlingham Nethergate, Woodton, Long Stratton and Hempnall. The LLFA had earlier stated that several sites lie upstream within sensitive catchments with histories of internal property flooding and that the Scheme could interact with the Reclaim the Rain flood-management project at Woodton.

The Environment Agency's concerns were equally fundamental. Its scoping advice identified deficiencies in the understanding of groundwater, Drinking Water Safeguard Zones, Groundwater Dependent Terrestrial Ecosystems, private water supplies, piling and HDD. In relation to private supplies, the EA recorded 35 private water supplies within 250 m of the site for which accurate locations and abstraction strata were unavailable. It required their locations and, where possible, their abstraction strata to be determined, impacts to be assessed within the potential influencing distance of the Scheme, and a reasonable worst case to be adopted where information remained absent. The EA also identified contradictory or incomplete information concerning Drinking Water Safeguard Zones and noted that the Broadland Rivers Chalk & Crag groundwater body and GWDTEs had not been properly incorporated into the early water-quality assessment.

Those matters are now of particular significance because the Scheme places its principal infrastructure, including the BESS and major substations, within a hydrogeologically sensitive rural environment containing numerous private abstractions, ordinary watercourses and connected drainage features. The Applicant's eventual provision of Figure 16.5 identifying private water supplies is therefore a necessary step, but it does not by itself answer the EA's concern. A receptor-location plan is not equivalent to a hydrogeological source-pathway-receptor assessment, and proximity within or beyond a fixed 250 m radius does not establish whether an abstraction is hydraulically connected to a particular source of risk.

BEPS also relies upon the independent review undertaken by H Fraser Consulting, *Environmental Impact Assessment Review: Ground conditions, hydrology and hydrogeology*, dated 28 September 2026 [hereafter 'HFCL']. That review is important because it examines the application evidence as an integrated hydrogeological and hydrological case rather than considering the ES chapters in isolation. Its findings should be read alongside the statutory consultation evidence and the Applicant's responses to the Environment Agency and Norfolk County Council. In particular, the Fraser review identifies deficiencies in the conceptual hydrogeological model, private-water-supply baseline, identification of groundwater-dependent receptors, WFD screening, water-resource assessment and the treatment of contaminant pathways associated with major infrastructure and foundation works.

BEPS therefore relies principally upon ES Chapter 9 Water Environment [APP-045], the Flood Risk Assessment and Outline Surface Water Drainage Strategy, the Water Framework Directive Assessment [APP/6.3.9.2], the Water Resources Assessment [APP/6.3.9.3], Chapter 16 and the Phase 1 Ground Conditions Assessment, Figure 16.5 showing the locations of private water supplies, the Planning Inspectorate's Scoping Opinion, the Environment Agency's scoping and statutory consultation responses and Relevant Representation, Norfolk County Council/LLFA's consultation responses and Relevant Representation, the Applicant's responses in EXAM/8.6 and EXAM/8.7, and the September 2026 H Fraser Consulting review.

The purpose of this Written Representation is consequently not to repeat the earlier Relevant Representation, but to test the Applicant's final Environmental Statement and examination responses against those requirements and against the subsequently available independent evidence. The central issue for the Examining Authority is whether the remaining uncertainties are merely matters of detailed design which can safely be controlled after consent, or whether they concern the underlying baseline, source-pathway-receptor relationships and environmental feasibility of the Scheme and therefore need to be resolved before a sufficiently robust recommendation can be made. BEPS submits that a significant number fall into the latter category.

9.2 Hydrological and Hydrogeological Setting

9.2.1 The Scheme extends across two principal river systems and numerous connected drainage networks

The physical setting of East Pye Solar is fundamental to the assessment because the Scheme does not occupy a single compact hydrological unit. It extends across a wide rural area containing several chalk stream river catchments, numerous ordinary watercourses and drainage features, groundwater bodies and differing superficial geological deposits. The environmental consequences of an activity at one part of the Scheme therefore cannot always be understood simply by reference to the field or sub-site in which that activity is located.

The Applicant's own scoping material identified the Hempnall Beck, River Tas and Broome Beck as principal watercourses in proximity to the Scheme. Hempnall Beck flows between Sites 7 and 4–6; the River Tas runs along the boundaries between sub-Sites 8A and 8B; and Broome Beck flows adjacent to sub-Sites 10A and 10C before becoming a main river downstream. The same document identified ordinary-watercourse tributaries of the River Tas and Starston Brook along or adjacent to other parts of the Scheme.

The Scheme therefore interacts broadly with two principal river systems. The western and central parts of the development interact with the River Tas chalk stream/Hempnall Beck system, while other parts lie within the river Waveney chalk stream operational catchment, including areas associated with Starston Brook and Broome Beck. The Applicant's scoping assessment itself recorded that most of the site lies within the Yare Operational Catchment while south-western and north-eastern parts fall within the Waveney Operational Catchment.

This distinction is important but should not obscure the wider connectivity within each system. The principal rivers are fed by smaller watercourses, ditches, field drains, culverts and surface-water pathways. Those smaller features may not themselves be separately classified WFD waterbodies, but they can provide direct hydrological pathways into classified downstream receptors. The LLFA has repeatedly emphasised the presence of surface-water flow routes and ordinary watercourses across the development area and criticised incomplete identification of those features during the earlier assessment stages. Its July 2025 response stated that surface-water flood risk was inadequately represented and that the FRA and drainage strategy failed to reflect the historic flood experience of downstream communities.

The scale of the development therefore matters. Effects arising from a particular solar parcel, cable corridor or infrastructure compound may propagate through drainage networks to a receptor

outside that immediate parcel. Likewise, multiple individually small changes across the Scheme can converge within the same catchment. That is particularly relevant to changes in runoff, sediment mobilisation, construction pollution, dewatering, altered recharge, culvert or crossing effects and accidental releases.

The groundwater setting adds a further layer of connectivity. The Applicant's scoping report expressly stated that groundwater was expected to be in 'broad continuity' with water levels in the watercourses and that the groundwater table would slope towards the lowest areas of the parcels. That is a significant acknowledgement. It indicates that groundwater and surface water cannot properly be treated as wholly separate receptor systems. Changes to recharge, subsurface pathways or groundwater quality may have consequences for surface-water features, and conversely surface-water infiltration or pollution may affect groundwater receptors.

The underlying geology is also significant. The Scheme is associated with the Broadland Rivers Chalk & Crag groundwater body, and the EA specifically criticised the earlier assessment for failing adequately to incorporate that groundwater body and groundwater-dependent terrestrial ecosystems. The groundwater environment includes Principal Aquifer units together with superficial deposits of varying permeability. The practical consequence is that contaminant movement and recharge behaviour cannot safely be inferred from a uniform assumption that superficial clay deposits isolate the underlying aquifer.

This is particularly important where the Scheme introduces piles, foundations, trenches, cable ducts and HDD works. The EA expressly identified the possibility that piling or deep foundation works could create new migration pathways into deeper groundwater units, and that trenchless installation could introduce drilling fluids or mobilise contaminants into controlled waters where aquifers or sensitive watercourses are encountered. Those concerns depend directly upon the actual geological sequence and hydraulic relationships at each relevant location.

The hydrological setting is also closely connected to drinking-water protection. At scoping stage, the EA identified uncertainty and inconsistency in the identification of Drinking Water Safeguard Zones and required the Applicant to identify which parts of the Scheme fall within surface-water and groundwater safeguard zones and to consider the pressures that gave rise to those designations. The presence of Source Protection Zones and private groundwater abstractions further increases the importance of a correct understanding of groundwater flow and contaminant migration.

The Applicant's assessment therefore needs to operate at two scales simultaneously. At site scale, it must understand the geology, groundwater and drainage conditions at each major source of risk. At catchment scale, it must understand where runoff, pollutants, sediment and altered groundwater conditions may ultimately propagate. BEPS's concern is that the Environmental Statement identifies many of these components but does not always integrate them into a single coherent source-pathway-receptor model.

9.2.2 Chalk-stream sensitivity

The River Tas and Hempnall Beck form part of an especially sensitive freshwater environment. The Applicant's own scoping material identifies Hempnall Beck and the River Tas as principal

watercourses associated with the Scheme, and its WFD baseline records that the Hempnall waterbody was already in poor ecological status and the River Tas in moderate ecological status at the time of the baseline assessment. Both were recorded as failing chemical status. Norfolk Wildlife Trust has queried that result with BEPS in conversation saying that the original water analysis was taken after the temporary failure of a septic tank, and that the river water quality is actually good. New independent water quality analysis should be undertaken.

Whatever the ecological or chemical status, additional pressures may be material both to the requirement to avoid deterioration and to the ability of the waterbody to recover towards its environmental objectives. The Applicant's own scoping assessment stated that measures had already been delivered to address some existing issues but that recovery for problematic chemical substances could take decades. That makes additional pressure on these systems a matter requiring careful examination.

The sensitivity of chalk streams is also relevant to the types of effect associated with the Scheme. Chalk streams are strongly influenced by groundwater, and their ecological condition can be affected by changes in flow regime, sediment loading, water quality and physical habitat. For East Pye Solar, the relevant mechanisms include sediment mobilisation during construction, altered runoff caused by compaction and new surfaces, disturbance associated with cable and access crossings, potential drilling-fluid release during HDD, contamination from fuels and construction materials, and groundwater effects associated with piling, foundations or dewatering.

The Environment Agency's scoping advice reinforces the need for such an integrated assessment. It required hydrogeological risk assessment where HDD or trenchless drilling could interact with Principal or Secondary A aquifers or pass beneath surface watercourses or sensitive ecological receptors. That requirement reflects the fact that impacts to a chalk-stream system cannot safely be evaluated only by considering the visible channel at the crossing point. The groundwater body, river channel, hyporheic environment, tributary drainage network and dependent ecology form parts of the same functional system.

BEPS has addressed the ecological consequences in greater detail in Chapter 8: Ecology and Biodiversity, including the evidence relating to aquatic species and white-clawed crayfish. The purpose of this section is to establish that the water environment which supports those ecological receptors is itself unusually sensitive, interconnected and already subject to existing pressures.

The wider Waveney-linked part of the Scheme requires similar pathway-based treatment. Broome Beck is physically connected downstream to the Waveney system, while Starston Brook and associated tributaries form part of that wider operational catchment. The Applicant cannot therefore assume that effects occurring within an ordinary watercourse or minor drainage feature are environmentally self-contained merely because the feature is not separately classified as a WFD waterbody. The relevant issue is whether it conveys flow, sediment or pollutants to a downstream classified receptor.

This is particularly relevant to the Applicant's WFD screening methodology and will be addressed later in this chapter. For present purposes, the important point is that the Scheme occupies catchments containing already sensitive waterbodies, with extensive minor drainage networks capable of transmitting effects downstream.

9.2.3 The Applicant itself accepts hydrological connectivity

A central difficulty with the Applicant's case is that its own evidence recognises hydrological connectivity when identifying receptors, yet some later assessments appear to adopt a more compartmentalised approach when determining whether significant effects can occur.

The Flood Risk Assessment accepts that designated sites can be hydrologically linked to the Order Limits through watercourses and groundwater flow and that such sites therefore have the potential to be affected by the Scheme. That is an important acknowledgement of the physical system.

The same underlying concept is already evident in the Applicant's earlier material. The scoping report recognised broad continuity between groundwater levels and watercourses. It identified principal rivers together with ordinary tributaries and watercourses across the Scheme. The Environment Agency then warned that an inadequate conceptual model could lead to significant contaminant migration pathways being overlooked and required the Applicant to correct errors in its geological characterisation and undertake specific hydrogeological assessments for piling and HDD.

Once connectivity is accepted for the purpose of identifying potentially affected receptors, it cannot rationally be disregarded when assessing how pollutants, sediment, changes in recharge or accidental releases may move through the same system.

That does not mean that the existence of a hydraulic connection proves that a significant effect will occur. It means that the connection must be incorporated into the source-pathway-receptor assessment and supported by sufficient evidence before an effect can safely be excluded. Where the pathway is uncertain, the correct response is not simply to assume that distance or mitigation prevents an effect; the uncertainty itself must be addressed through appropriate investigation, modelling or a robust worst-case assessment.

This point is particularly important for private water supplies. At scoping stage, the EA identified 35 private supplies within 250 m for which accurate locations and abstraction strata were unavailable and required impacts to be assessed within the potential influencing distance of the Scheme, rather than by a fixed proximity rule alone. The same principle applies to groundwater-dependent terrestrial ecosystems, drinking-water protection zones and downstream surface waters. A receptor may lie beyond an arbitrary buffer yet remain within a hydraulic pathway from the Scheme.

It is also important for the WFD Assessment. The Inspectorate required a WFD assessment specifically because watercourse and ditch crossings were proposed and the types, locations and effects of those crossings were not then sufficiently clear. Minor watercourses cannot simply be ignored where they are tributary to, or otherwise connected with, classified WFD waterbodies. The assessment must consider whether the Scheme may cause deterioration or impede recovery through those pathways.

The same issue arises in flood-risk assessment. Norfolk County Council has emphasised that some Scheme areas lie upstream of communities with well-documented flooding and that surface-water effects need to be assessed at catchment scale rather than only within individual parcels.

Surface-water pathways that leave the Order Limits are therefore as relevant as the conditions within the development itself.

This physical connectivity is one of the principal reasons why BEPS does not accept that the remaining deficiencies can simply be deferred to detailed design. Detailed design may legitimately refine a drainage basin or crossing detail once the environmental envelope has been established. It cannot substitute for an adequate understanding of where groundwater flows, how surface water and groundwater interact, which receptors are connected, and whether potentially significant contaminant or hydrological pathways exist.

Accordingly, the hydrological and hydrogeological setting should be treated as the foundation of the remainder of Chapter 9. The subsequent sections of this chapter address the consequences of the deficiencies in that foundation for private water supplies, groundwater protection, WFD assessment, flood risk, drainage, piling and HDD, BESS and substation firewater, groundwater-dependent habitats and water resources.

9.3 Fundamental Methodological Deficiencies

9.3 Defective Conceptual Hydrogeological Model

A sufficiently developed conceptual hydrogeological model is fundamental to the reliability of the Applicant's assessment of the water environment. It is the means by which the relevant geological and groundwater units, recharge processes, groundwater flow directions, hydraulic relationships, surface-water interactions, abstractions and contaminant pathways are brought together into a coherent source-pathway-receptor framework. Without that framework, it is not possible to assess reliably whether the Scheme could affect groundwater quality or quantity, private water supplies, groundwater-dependent habitats, surface watercourses, Source Protection Zones, or the underlying Principal Aquifer.

This deficiency is particularly significant for East Pye Solar because the Scheme is dispersed across a very large area, underlain by a combination of Crag Group and Chalk Principal Aquifers together with variable superficial deposits including the Lowestoft Formation, sand and gravel, alluvium, Head deposits and peat. HFCL identifies the Crag Group and underlying White Chalk as Principal Aquifers, the till as a Secondary Undifferentiated Aquifer and the sand and gravel deposits as Secondary A Aquifers. It also notes that groundwater vulnerability is generally medium to medium-high. [HFCL, §§2.4–2.5, pp.5–7]

HFCL's central criticism is unequivocal: 'The Applicant does not provide or define the hydrogeological conceptual model anywhere in the ES documentation.'

HFCL explains that the Water Resources Assessment is concerned primarily with potable and non-potable water supply and does not provide an overall conceptual model; the baseline section of Chapter 9 does not describe current hydrogeological conditions; and Chapter 16 describes Environment Agency aquifer designations but does not provide a coherent account of the hydrogeological system. HFCL therefore concludes that the assessment of wider hydrological and hydrogeological effects is 'not supported by a sufficiently defined baseline'. [HFCL §3.1.3.5, p.15]

That finding is important because Chapter 9 itself repeatedly reaches conclusions of negligible magnitude and minor, not significant effects on receptors of very high sensitivity. Those conclusions depend upon assumptions about how groundwater moves, how recharge occurs, and whether pathways exist between the Scheme and identified receptors. If the conceptual model underpinning those assumptions is incomplete, the confidence that can properly be placed in the resulting significance conclusions is correspondingly reduced.

9.3.1 No adequate conceptual site model

HFCL concludes that the Applicant has not provided or defined an adequate hydrogeological conceptual model for the Scheme. Chapter 9 contains no proper description of the existing hydrogeological conditions, while Chapter 16 identifies aquifer designations without setting out a coherent conceptual understanding of groundwater occurrence, movement and interaction between the superficial deposits and underlying Principal Aquifers. HFCL accordingly concludes that the wider assessment of hydrological and hydrogeological effects is not supported by a sufficiently defined baseline. However, cross-referring between chapters is not itself a conceptual hydrogeological model. What remains absent is a site-wide and parcel-sensitive account of how the groundwater system actually functions.

The omission is particularly important because HFCL identifies the relationship between the Lowestoft Formation and the underlying Chalk and Crag aquifers as materially more complex than the Applicant's assessment suggests. Published evidence cited by HFCL indicates that recharge through the till is not negligible, that the weathered till can be relatively permeable, and that the formation can support shallow private-water-supply abstractions. The Applicant's recurring characterisation of the till as effectively impermeable therefore risks understating connectivity and preferential-pathway risks.

The missing elements include the hydraulic relationship between the Lowestoft Formation and the underlying Crag and Chalk; the direction and gradient of groundwater flow; spatial and seasonal groundwater-level variation; recharge processes; the role of permeable superficial deposits; groundwater/surface-water interaction; springs and seepages; abstraction horizons; and the potential for natural or Scheme-created preferential pathways.

Those matters directly determine whether a private water supply is hydraulically connected to a proposed source of contamination, whether infiltration drainage may affect an aquifer, whether groundwater flow contributes materially to a surface-water receptor, and whether piles, trenches or HDD works could create additional connectivity.

The absence of a developed conceptual model is particularly difficult to reconcile with the Applicant's own assessment framework. Chapter 9 classifies the Norwich Crag Formation, Crag Group and Chalk Formations as Very High sensitivity receptors, together with PWS within 1 km. [ES Chapter 9 Table 9.4] Yet the chapter does not then present a receptor-specific groundwater-flow model showing how those Very High sensitivity receptors relate hydraulically to individual Scheme components.

Chapter 9 also acknowledges that the Broadland Rivers Chalk & Crag WFD groundwater body underlies the Order Limits and is in poor status because of the Groundwater Dependent Terrestrial Ecology test. [ES Chapter 9 §9.6.19] That makes the absence of a developed groundwater conceptualisation particularly significant. The Scheme is not being assessed against a hydrogeologically neutral or insensitive baseline.

HFCL also finds that not all GWDTEs have been identified and that no assessment is presented of potential connectivity between the Scheme and those receptors. It expressly links that omission to the absence of a proper hydrogeological conceptual model. [HFCL §§3.1.3.2 and 3.1.4.2, pp.14, 16]

The resulting concern is therefore structural: groundwater receptors are identified and assigned sensitivity, but the pathway analysis necessary to establish whether and how those receptors may be affected is not sufficiently developed.

9.3.2 Over-reliance on historic and off-site borehole data

The reliability of the baseline is further reduced by the Applicant's reliance upon historic and off-site borehole information. The FRA acknowledges that ground conditions have been inferred in part from historic boreholes located in proximity to, rather than within, the relevant parts of the Scheme. Many are around 100–250 metres from the Order Limits. For a compact and geologically uniform development, such information might provide useful corroborative evidence. For a Scheme extending across numerous parcels and differing superficial geological conditions, it is not a substitute for sufficient site-specific investigation at the principal sources of risk.

This matters because superficial geology is heterogeneous. The Lowestoft Formation itself is not simply homogeneous clay; HFCL records the BGS description of the formation as an unsorted and unstratified mixture of clay, sand, gravel and boulders. The wider Scheme also includes Leet Hill Sand and Gravel, alluvium, Head deposits, river terrace deposits and other potentially more permeable superficial units. [HFCL §2.4, pp.5–7]

The extrapolation of ground conditions from historic boreholes therefore carries particular risk where those assumptions are then used to support conclusions about groundwater protection, infiltration, piling or private water supply vulnerability.

HFCL's review reinforces the concern because it identifies specific inconsistencies in the way the Applicant has inferred abstraction strata from nearby records. In Technical Appendix 16.1, the Applicant assigns target strata to private water supply boreholes either from direct borehole evidence or by extrapolation from other sources. HFCL finds that the Applicant sometimes treats the presence of Lowestoft Formation as evidence that it is not the source of abstraction, while elsewhere treating thinning of the same formation as evidence that it is not being used. HFCL describes those assumptions as 'confused and inconsistent'. [HFCL §3.2.4, pp.17–18]

For BEPS, the point is not that historic borehole data are inherently unusable. It is that the uncertainty inherent in extrapolating from them must be reflected in the assessment. Where the exact ground conditions beneath high-risk infrastructure and vulnerable receptors remain uncertain, the Applicant should either investigate those conditions or adopt a genuinely

precautionary worst-case approach. It should not rely upon inferred geology as though it were established fact.

9.3.3 Unsupported assumptions about the Lowestoft Formation

HFCL's criticism of the Applicant's treatment of the Lowestoft Formation is one of the strongest technical points in the independent review. The Applicant appears repeatedly to rely on the presence of Lowestoft Formation till as a relatively protective or low-permeability layer. HFCL considers that treatment too simplistic. It cites published BGS work indicating that the hydrogeological relationship between the till and the underlying Chalk and Crag Principal Aquifers is materially more complex.

HFCL records that published research indicates recharge through the till to the Chalk may amount to approximately 4.5% to 20% of effective rainfall; that overland flow is comparatively rare, which is consistent with a weathered and locally permeable upper till; and that the weathered Lowestoft Formation can have hydraulic conductivities typically between 10^-6 and 10^-8 m/s, with values as high as 10^-5 m/s. HFCL therefore concludes that groundwater movement and storage may occur within weathered horizons. [HFCL §3.1.3.5, p.15]

HFCL also notes that the Lowestoft Formation is designated by the Environment Agency as a Secondary Undifferentiated Aquifer, that sand and gravel horizons and lenses are known within it, and that the medium groundwater vulnerability attributed to the Formation is itself inconsistent with treating it as an effectively impermeable barrier. [HFCL §3.1.3.5, p.15] This is not an abstract geological debate. The assumption directly affects the assessment of private water supplies and pollutant migration.

HFCL identifies a particularly important internal contradiction in Technical Appendix 16.1. It notes that the Applicant frequently assumes that the presence of Lowestoft Formation precludes it from being the source of private water abstraction. Yet for PWS record TM29NW25, the Applicant itself describes the Lowestoft Formation as supporting the abstraction. HFCL concludes that this confirms the till can support private supplies and that the Applicant's general assumption may therefore be unsound. [HFCL §3.2.4, pp.17–18]

HFCL's fieldwork adds further weight. It found that private abstractions from the shallow glacial till are 'not unusual'. [HFCL §3.1.3.1, p.14]

The consequence is significant. If shallow groundwater within the Lowestoft Formation is capable of supporting private supplies, then impacts upon shallow recharge, turbidity, local groundwater levels, construction-related sediment or pollution cannot safely be discounted on the assumption that relevant supplies draw only from deeper Chalk.

The same applies to the protection of the underlying Principal Aquifer. If recharge through the till is material and if construction works penetrate or disturb the till, there is a plausible pathway by which Scheme-generated contaminants may migrate vertically or laterally. That possibility must be incorporated into the source-pathway-receptor assessment rather than screened out through a generic description of the till as low permeability.

9.3.4 Interaction between Chapters 9 and 16

HFCL also identifies a methodological inconsistency between Chapter 9 Water Environment and Chapter 16 Ground Conditions.

Chapter 9 itself says that its receptor-sensitivity criteria were derived to align with Chapter 16. [ES Chapter 9 §9.5.10] However, HFCL finds that the two chapters use materially different definitions of effect, magnitude and significance despite dealing with overlapping hydrological and hydrogeological receptors.

In particular, Chapter 9 uses four magnitude categories — High, Medium, Low and Negligible — whereas Chapter 16 uses five — Large, Medium, Small, Very Small and Negligible. HFCL also notes that Chapter 9 describes water-quality magnitude partly by reference to deterioration between WFD classes, while Chapter 16 uses Environmental Quality Standards. [HFCL §3.1.1, pp.12–13]

HFCL identifies an additional concern with the Chapter 9 significance matrix. It observes that a one-step change in magnitude from Medium to Low can cause the resulting significance to fall by two classes, from Major to Minor. It also criticises combinations such as Low sensitivity × Low magnitude producing Negligible significance, and Medium × Low producing Minor/Negligible. [HFCL §3.1.1, p.12]

This is particularly relevant because Chapter 9 repeatedly assigns Very High sensitivity to receptors and then concludes that the magnitude of effect is Negligible, yielding a Minor and Not Significant outcome. For example, Chapter 9 uses this approach for operational contaminant mobilisation from BESS and substation runoff, BESS/substation firewater and changes in groundwater recharge. [ES Chapter 9 §§9.8.39–9.8.40, 9.8.46–9.8.49, 9.8.54–9.8.57]

The issue is not simply that different environmental disciplines may never use different significance criteria. The problem is that hydrology and hydrogeology are split across Chapters 9 and 16, yet the same physical source-pathway-receptor relationship may therefore be assessed under two different significance systems. HFCL considers that this makes the EIA difficult to interrogate consistently and identifies the issue as requiring further environmental information. [HFCL Table 4.1, refs 1, 3 and 11, pp.19–21]

BEPS submits that the Applicant should therefore provide a reconciled explanation of the methodological relationship between Chapters 9 and 16 and demonstrate that no groundwater or water-quality effect has been diluted, omitted or assigned an artificially low significance because of the division of the assessment across those chapters.

9.4 Private Water Supplies: Major Unresolved Human-Health Issue

9.4.1 Private water supplies are groundwater and human-health receptors

Private water supplies are one of the most important receptor groups affected by the Scheme. They are groundwater receptors, but where water is used domestically they are also direct human-health receptors. In a number of cases identified during HFCL's site visit, groundwater is the resident's only water supply. [HFCL Table 2.1 and §2.5.1, pp.8–10] That is materially different from

an abstract or replaceable environmental receptor. A deterioration in quality, a reduction in yield or an interruption to supply may directly affect a household's drinking, cooking, washing or food-production water.

The Private Water Supplies (England) Regulations 2016 reflect that importance. They define the private supply as the whole system from the point of abstraction to the point of use and provide that water is wholesome only where it does not contain a microorganism, parasite or substance at a concentration or value capable of constituting a potential danger to human health.The assessment must therefore address both quality and quantity. A supply need not become chemically contaminated in order to be materially affected; interference with groundwater levels or recharge may reduce the yield or reliability of a well or borehole.

9.4.2 What PINS required

The Planning Inspectorate identified the private-water-supply issue expressly in Scoping Opinion 3.2.5. PINS noted that a number of private water supplies lay within 250 metres of the site, that accurate location and abstraction data had not been provided, and that if a reasonable worst case was adopted in which each was assumed to be potable, default Source Protection Zone 1 buffers would be relevant. In the absence of accurate locations, PINS considered it difficult to determine whether the Scheme overlapped those areas and required the ES to identify the supplies and assess potential impacts upon them and their buffers.

Chapter 9 reproduces that requirement and responds by stating that the Water Resources Assessment provides information on private water supplies and that Figure 16.5 displays their locations. [ES Chapter 9 consultation table, response to SO 3.2.5] That response is inadequate in itself because PINS required both identification and impact assessment. Figure 16.5 is capable of contributing to identification. It does not by itself assess impact.

9.4.3 What the Environment Agency required

The Environment Agency's statutory consultation identified inconsistency in the number of private abstractions reported, stated that the risks to private groundwater abstractions could not be adequately assessed on the information then available, and required further information on supply location and source, including local-authority records and known wells.

It also rejected the implication that 250 metres could operate as a fixed hydrogeological cut-off. The EA required the groundwater abstraction search area to be extended because impacts upon abstractions beyond 250 metres could not be fully discounted where Principal Aquifers with high transmissivity, including Chalk and Norwich Crag, are present.

That concern is directly borne out by HFCL's fieldwork. Park Farm, for example, was identified during HFCL's site visit as an active groundwater pumping well and the resident's only water supply, but HFCL records that it was 'outside of 250m buffer so not discussed by Applicant'. [HFCL Table 2.1, p.10]

This is a particularly important example because it demonstrates in concrete terms why a purely distance-based method is inadequate. A private supply can fall outside the Applicant's preferred proximity buffer yet remain an active and potentially vulnerable groundwater receptor.

9.4.4 What Figure 16.5 actually demonstrates

Figure 16.5 is useful evidence, but its evidential value should not be overstated. It demonstrates that private supplies are concentrated around parts of the Scheme, including the Site 1/BESS/Grid Hub area and Site 5/400kV substation area. In that respect it confirms the proximity of drinking-water receptors to some of the Scheme's principal potentially contaminating infrastructure.

However, Figure 16.5 does not establish abstraction depth, screened interval, source stratum, groundwater elevation, groundwater flow direction, hydraulic gradient, yield, seasonal variation, well construction, source-pathway connectivity, contaminant travel time or receptor-specific vulnerability.

The correct characterisation is therefore: Figure 16.5 is a receptor-location plan, not a private-water-supply risk assessment.

That distinction is reinforced by Chapter 9's own methodology. Table 9.3 assigns PWS sensitivity primarily by radial distance from the Order Limits: within 50 m Very High, 50–250 m High, 250–500 m Medium, 500 m–1 km Low, and beyond 1 km effectively Negligible. Yet Table 9.4 separately classifies all PWS within 1 km as Very High, those within 1–3 km as High and those within 3–5 km as Medium. [ES Chapter 9 Tables 9.3–9.4]

HFCL identifies this as an internal inconsistency and, more fundamentally, criticises the use of distance as a proxy for connectivity. Its point is that distance is only one control upon hydrogeological connection and cannot substitute for understanding the actual groundwater pathway. [HFCL §3.1.1, pp.12–13]

9.4.5 HFCL's independent findings materially undermine the PWS baseline

HFCL's work is especially important because it tested the Applicant's PWS baseline rather than simply accepting the available databases. HFCL states that the Applicant has not provided the full list of private water supplies obtained from the Local Authority, reportedly because of data-protection constraints. HFCL independently approached South Norfolk Council and obtained PWS grid-reference data. Its Figure 2-6 shows private abstractions within the Scheme itself and numerous others close to it. [HFCL §2.5.1 and Fig.2-6, pp.7–8]

HFCL then undertook a limited site visit and visited a small sample of residences and businesses to verify local conditions and PWS status. Its Table 2.1 records several important examples.

At Boyland Hall, HFCL identified an active groundwater pumping borehole which was the resident's only water supply. The Applicant had assumed the relevant historic boreholes were disused because Boyland Hall and associated outbuildings had been demolished. HFCL's field inspection demonstrated that this assumption was wrong.

At Elder Farm/The Forge, HFCL confirmed an active groundwater borehole and recorded that it was the resident's only water supply.

At Park Farm, HFCL confirmed an active pumping well which was the resident's only water supply, but noted that the Applicant had not discussed it because it lay outside the 250 m buffer.

At Willow Farm, HFCL confirmed an active groundwater pumping borehole used as the resident's only water supply. [HFCL Table 2.1, pp.9–10]

These are not minor discrepancies. They demonstrate that desktop assumptions can misidentify whether a supply is active and that the status of individual receptors cannot safely be inferred solely from historic records. HFCL further records that some local supplies abstract from shallow groundwater associated with the Lowestoft Formation, contradicting any general assumption that private abstractions are confined to the deeper Chalk or Crag aquifers. This materially increases the relevance of shallow construction effects, altered infiltration and preferential pathways.

HFCL's broader baseline criticism is equally significant. It states: 'The methodology used by the Applicant to ensure that all PWSs have been identified and assessed is not presented.'

HFCL acknowledges the three sources used by the Applicant – Local Authority records, BGS records and Environment Agency permit records – but states that even in combination those sources will not necessarily identify every PWS. It recommends cross-checking private-supply records against an address database and mains-water-supply records so that properties without either a recorded PWS or mains connection can be investigated, followed by ground-truthing where necessary. [HFCL §3.1.3.1, p.14]

HFCL concludes that unless those steps are undertaken 'the PWS baseline has been insufficiently characterised, and potentially sensitive receptors remain unidentified.' [HFCL §3.1.3.1, p.14] That is a material challenge to the Applicant's EIA conclusions.

HFCL's own site visit was deliberately limited and intended only as a snapshot, yet it still identified an active supply omitted or wrongly assumed inactive by the Applicant. HFCL therefore concludes that it is 'possible (indeed probable)' that further private supplies have been omitted. [HFCL §3.1.3.1, p.14] The Applicant's significance conclusions cannot be regarded as robust if the population of potentially affected receptors has not first been reliably established.

9.4.6 Different PWS types require different assessment

HFCL's work also demonstrates why private supplies cannot properly be treated as a homogeneous receptor group. The known supplies include shallow groundwater sources and deeper boreholes. Their vulnerability depends upon source stratum, depth, construction, hydraulic connection and local geology.

HFCL states expressly that limited ground-truthing demonstrated that abstraction from shallow glacial till is 'not unusual'. [HFCL §3.1.3.1, p.14] That is important because the Water Resources Assessment and associated groundwater material tend to characterise the known supplies as predominantly drawing from Chalk beneath the Lowestoft Formation.

For a shallow supply, local surface infiltration, sediment mobilisation, turbidity, microbial contamination, construction dewatering and changes in shallow groundwater recharge may be particularly important. For a deeper Chalk or Crag borehole, the relevant pathway may involve a much larger groundwater catchment, and the issue becomes whether construction penetrations, piling, trenches or naturally permeable horizons provide hydraulic connection from the surface or shallow deposits to the deeper aquifer. It follows that radial distance alone is not a defensible substitute for source-specific hydrogeological assessment.

9.4.7 The Private Water Supplies Regulations reinforce the requirement for a risk-based approach

The Private Water Supplies (England) Regulations 2016 provide an important legal context. Regulation 6 places the risk-assessment duty on the local authority, subject to the statutory exceptions for certain single-dwelling supplies. The assessment must establish whether there is a risk that the supply would constitute a potential danger to human health. The Regulations also require relevant risk assessments to take account of Water Framework Directive monitoring.

Regulation 7 allows monitoring programmes to include inspections of the catchment area, abstraction, treatment, storage and distribution infrastructure. Regulation 14 requires local authorities to keep records including the source type and geographical location of supplies.

BEPS does not suggest that Regulation 6 transfers the local authority's statutory duty directly to the Applicant. The DCO assessment cannot responsibly conclude that development effects on private drinking-water supplies are negligible or minor where the hydrogeological and receptor information necessary for the statutory risk-based regime remains incomplete.

In other words, the Applicant needs to provide enough information about its development, relevant sources, pathways and receptors to permit the risks to drinking-water safety to be understood before consent is granted.

At present it has not done so.

9.4.8 The Water Resources Assessment does not assess Scheme impacts on PWS

The current Water Resources Assessment provides a particularly important admission. At §4.1.3, the WRA states that because new groundwater and surface-water abstraction options have been scoped out: 'there is no potential impact on existing lawful water users in the area including both licenced abstractions and unlicenced (private) water supplies. The associated impacts have not been considered any further in the WRA or corresponding ES Chapter.'[WRA §4.1.3]

That passage materially narrows what the Applicant has actually assessed. It only excludes one mechanism of effect: derogation caused by the Scheme undertaking a new groundwater or surface-water abstraction. It does not address other pathways by which the Scheme itself could affect PWS, including construction pollution, piling, HDD, altered shallow recharge, sediment, dewatering, drainage discharges, transformer oil, BESS contaminants or firewater.

The logic is therefore incomplete. The fact that the Scheme will not obtain water from a new abstraction does not demonstrate that it cannot affect existing abstractions by other mechanisms. Chapter 9 itself recognises those other mechanisms. At §9.8.36 it identifies operational contaminant mobilisation from vehicle leaks, transformer oil and runoff from new impermeable areas at the BESS and substations. At §9.8.46 it identifies the risk of contaminants being mobilised in firewater. [ES Chapter 9 §§9.8.36–9.8.49]

Yet PWS effects as lawful water users are screened out under §9.8.32 simply because new abstraction has been ruled out. [ES Chapter 9 §9.8.32] BEPS considers that distinction critical. The WRA screens out abstraction-derogation risk; it does not demonstrate absence of contamination or hydrogeological pathway risk to the same supplies.

9.4.9 Material information remains absent

Taken together, the Applicant has not provided the information necessary for a robust receptor-specific PWS assessment. What remains absent, or insufficiently demonstrated, is a complete and verified inventory of supplies within the actual hydrogeological zone of influence; verified coordinates; confirmation of whether supplies remain active; well or borehole construction; abstraction depth and screened interval; source stratum; use and degree of household or commercial dependence; baseline groundwater levels and seasonal variation; baseline yield; baseline water quality; and hydraulic relationship to relevant Scheme infrastructure.

The assessment also lacks a receptor-specific evaluation of construction-phase and operational pathways, including contaminant migration, sediment, recharge alteration, dewatering, piling, trenching, HDD, transformer fluids, BESS contaminants and firewater.

There is no clear quantitative or semi-quantitative source-pathway-receptor assessment showing which individual supplies are upgradient or downgradient of relevant infrastructure, how long contaminant migration might take, or which supplies may be especially vulnerable because of shallow abstraction.

There is also no clear pre-construction baseline monitoring strategy capable of establishing causation if a supply later deteriorates. This matters because without reliable pre-development water-quality and yield data, any later dispute as to whether deterioration is Scheme-related may be extremely difficult to resolve.

Finally, the assessment does not provide a sufficiently developed trigger and action framework dealing with monitoring exceedances, investigation, emergency replacement water, remediation and long-term alternative supply.

For those reasons, BEPS submits that the Applicant cannot presently demonstrate that private-water-supply effects are Negligible or Minor, or that PWS receptors have been assessed consistently with the requirements identified by PINS and the Environment Agency.

The issue is therefore not merely that the Applicant has not obtained perfect information about every private abstraction. The Environment Agency itself recognised that complete information may not always be obtainable and required a reasonable worst-case approach where necessary.

The difficulty is that the present assessment does not yet demonstrate, supply by supply or by defensible receptor grouping, the source, abstraction horizon, likely groundwater pathway, vulnerability and credible relationship to the proposed works. Without that information, proximity alone cannot determine whether a supply is outside the Scheme's influence.

This is precisely the type of environmental knowledge which should be distinguished from detailed design. Later monitoring may verify whether an already assessed supply is behaving as predicted. It should not be relied upon to establish for the first time after consent whether a private drinking-water receptor is hydraulically connected to the authorised works.

9.5 Groundwater Contamination and Preferential Pathways

9.5 Piling, Foundations and Ground Disturbance

9.5.1 PINS requirement concerning HDD and groundwater

The Planning Inspectorate identified groundwater interaction from trenchless installation as a specific issue at scoping. Scoping Opinion ID 2.1.5 records that no design parameters had been provided for proposed HDD and required the ES to contain those parameters and demonstrate whether HDD was likely to encounter groundwater bodies. PINS expressly directed the Applicant to the Environment Agency's consultation response for further information.

The EA's concern was clear: where HDD or other trenchless techniques may interact with Principal or Secondary A Aquifers or pass beneath sensitive surface watercourses or ecological receptors, the risk of drilling fluids, mobilisation of contamination and groundwater interaction requires hydrogeological assessment.

This is particularly important in the East Pye setting because the proposed cable network crosses extensive superficial deposits and Principal Aquifer settings and interacts with chalk-stream and ordinary-watercourse systems.

The relevant question for the Examination is therefore not merely whether HDD is an accepted construction technique. It is whether the location-specific geological and groundwater conditions, launch and reception pit design, drilling depth, fluid pressures, frac-out risk and receiving receptors have been sufficiently defined to demonstrate environmental acceptability.

9.5.2 EA requirement for Foundation Works and Piling Risk Assessment

The Environment Agency also identified the potential for deep foundations or piles to create new contaminant migration pathways.Its concern arises because penetration through a lower-permeability superficial layer into a more transmissive underlying unit may establish a vertical pathway that did not previously exist. Where the underlying unit is a Principal Aquifer, this requires particular caution.

The EA therefore sought Foundation Works Risk Assessments or Piling Risk Assessments for the BESS, substations and other structures requiring piled or deep foundations. That requirement is

particularly relevant given the Applicant's retained flexibility over foundation solutions across a very large site and the geological variability described above.

A generic commitment to good construction practice cannot answer this issue because the risk depends upon the depth and type of pile, the strata penetrated, groundwater level, piling technique and nearby receptors.

9.5.3 HFCL identifies a fundamental error in the source-pathway analysis

HFCL's independent review identifies a particularly important deficiency in the Applicant's piling assessment. Technical Appendix 16.1 recognises that piled foundations may create preferential vertical pathways for pollution migration. However, HFCL notes that the Applicant then treats the risk as low primarily because of the absence of existing brownfield contamination at the locations where piled structures may be required. [HFCL §3.2.4, pp.17–18]

HFCL considers that analysis incomplete because it focuses on historical contamination as the potential source while failing to treat the Scheme itself as a source. That is a fundamental source-pathway-receptor error.

During construction, the Scheme introduces fuels, oils, hydraulic fluids, cementitious materials, drilling products, plant, equipment and substantial disturbed ground.

During operation, the Scheme introduces transformers, insulating oils, vehicles, BESS infrastructure, maintenance substances, drainage systems and potentially contaminated firewater.

If piles or deep foundations create a preferential pathway into a Principal Aquifer, it is those Scheme-generated sources that must also be tested against the pathway.

HFCL summarises the deficiency in its key findings as follows:

'The Assessment of the potential interaction of piled structures with the underlying aquifer focusses solely on the likely presence/ absence of brownfield land (as a source of contamination). The potential for the scheme itself to be a source of contamination (e.g. fuels, oils, firewater) is not assessed.' [HFCL Table 4.1, ref.13, p.21]

This is one of the strongest technical criticisms in the report because it shows that the Applicant's conclusion of low risk does not follow from the full source-pathway-receptor scenario created by the proposed development.

9.5.4 Preferential pathways remain insufficiently characterised

Piles, trenches, cable ducts, foundation excavations, boreholes and HDD works all have the potential, depending upon local conditions, to alter the pre-development groundwater system.

They may penetrate lower-permeability deposits, connect shallow and deeper groundwater horizons, redirect flow locally, create granular backfilled pathways, or provide a route by which

contaminants travel vertically or laterally more readily than under undisturbed conditions. Whether those effects are material depends upon the actual stratigraphy and design at the particular location.

This is precisely why the shortcomings in the conceptual hydrogeological model matter. If the thickness and hydraulic behaviour of the Lowestoft Formation are not established reliably at each relevant infrastructure location, the Applicant cannot demonstrate whether a proposed pile remains entirely within a lower-permeability unit, penetrates into a sand/gravel lens, or reaches the Crag or Chalk below.

Likewise, if pile lengths remain flexible within the Rochdale Envelope, it must be demonstrated that the worst-case assessed pile depth is environmentally acceptable. It is not enough to defer the actual foundation solution and then assume that any later design can be made safe.

The ES material currently available does not demonstrate, parcel by parcel, the relationship between proposed maximum foundation depth and the underlying stratigraphy for all major infrastructure. Nor does it provide a sufficiently developed assessment of the way in which such works could interact with nearby private water supplies, Source Protection Zones or the Broadland Rivers Chalk & Crag groundwater body.

BEPS therefore submits that the remaining uncertainty concerns environmental feasibility, not merely construction detail. Before the ExA can accept conclusions of negligible or minor groundwater effect, the Applicant should provide sufficient site-specific geological and hydrogeological information to demonstrate that the worst-case foundation, trenching and HDD scenarios will not create unacceptable preferential contaminant pathways.

The significance of this issue is increased by the breadth of the authorised envelope. The question is not whether every pile, foundation or HDD operation will necessarily create a preferential pathway. It is whether the Applicant has characterised the geological and hydrogeological setting sufficiently to identify where such a pathway could arise and to demonstrate that an acceptable foundation or trenchless solution exists throughout the locations authorised by the DCO. A post-consent Foundation Works Risk Assessment can refine methodology; it should not be required to determine whether the authorised location itself is environmentally acceptable.

9.6 Water Framework Directive

9.6 The WFD Assessment is not sufficiently precautionary or comprehensive

BEPS does not accept that ES Appendix 9.2, *Water Framework Directive Assessment* [APP/6.3.9.2], provides a sufficiently robust basis for concluding that the Scheme complies with the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. Applicant has produced a document entitled ‘WFD Assessment’; however, the assessment screens out a substantial part of the water environment affected by the Scheme, relies heavily upon assumptions about future mitigation and detailed design, and does not adequately examine the effects of the Scheme upon connected water features at the scale at which deterioration could actually occur.

The Applicant identifies six surface-water WFD catchments and one groundwater body associated with the Order Limits. It then screens three surface-water bodies and the groundwater body out of substantive assessment. The independent review by H Fraser Consulting Ltd ('HFCL') identifies this as one of the principal deficiencies in the Environmental Statement. HFCL concludes that the screening methodology gives insufficient attention to connected drains and ditches within the Scheme and to the potential for the development itself to introduce sediment and pollutants. In relation to groundwater, HFCL considers that screening out the Broadland Rivers Chalk and Crag water body because the Scheme occupies only a small proportion of its total 3,076 km^2 area applies the wrong scale of analysis. The relevant question is whether the development could cause deterioration in any relevant part of the groundwater body or affect locally important groundwater resources, rather than whether the affected area is numerically small compared with the whole groundwater-body area.

These are substantial issues because Appendix 9.2 ultimately reaches categorical conclusions that the Scheme 'will not cause deterioration' of WFD classifications, 'will not prevent future work' to improve those classifications, 'will not impact any water body within the WFD catchment or the River Basin District', and is compliant with the WFD objectives. [APP/6.3.9.2 §§5.2.1–5.2.3] Those conclusions are considerably stronger than the underlying evidence demonstrated in the assessment.

The WFD Assessment itself accepts that construction, operation, maintenance and decommissioning have the potential to increase runoff and transport pollution and sediment to watercourses; that construction can disturb fine sediment and affect habitats, sediment transport, deposition and water quality; and that mitigation is required to prevent polluted water reaching both immediate and downstream waterbodies. [APP/6.3.9.2 §§5.1.2–5.1.6] The dispute is therefore not about whether pathways exist in principle. The Applicant accepts that they do. The question is whether those pathways and the effectiveness of the proposed controls have been sufficiently evaluated to justify screening out four of the seven WFD receptors and reaching an unqualified overall conclusion of compliance.

BEPS submits that they have not.

9.6.1 The Planning Inspectorate expressly required a WFD assessment because effects and crossing arrangements remained uncertain

The Planning Inspectorate considered the WFD issue directly at scoping stage. Scoping Opinion ID 3.2.4 noted that the Applicant's Scoping Report identified WFD waterbodies but did not propose a WFD assessment. PINS also noted that new watercourse or ditch crossings were anticipated but it was not then known whether those crossings would serve vehicles, cables or other Scheme functions. In light of the potential for likely significant effects and the absence of sufficient detail about the nature, location and effects of the proposed crossings, PINS required the ES to include a WFD assessment, or a screening assessment demonstrating why a full assessment was not required. Importantly, it also stated that the approach and findings should be agreed with the relevant statutory consultees.

That requirement must be read alongside the Environment Agency's scoping response. The EA disagreed with the proposed exclusion of the water environment and associated ecological

receptors. It specifically stated that the need for cable crossings and haul-road crossings had not been properly addressed, that the water environment had to remain in scope so that the consequences of those crossings could be assessed, and that several main rivers, ordinary watercourses, WFD waterbodies and associated wetlands lie within or border the Order Limits. It also specifically identified the River Tas as a chalk-stream priority habitat requiring appropriate consideration.

The purpose of PINS's requirement was therefore substantive. It was not satisfied merely by producing Appendix 9.2. What was required was an assessment capable of demonstrating whether the eventual Scheme, including its crossings and associated pollution and hydromorphological pathways, would comply with WFD objectives.

The final WFD Assessment still retains material uncertainty about those works. It states, for example, that CRC crossings will 'likely' use trenchless construction and repeatedly makes those conclusions subject to detailed design. For Broome Beck, Appendix 9.2 acknowledges that a crossing depth 'has not yet [been] established', but nevertheless concludes that there will be no impact and screens the entire waterbody out. [APP/6.3.9.2 §§3.5.2–3.5.4] That is the type of unresolved design uncertainty which gave rise to the Inspectorate's requirement in the first place.

9.6.2 The seven WFD waterbody receptors and the Applicant's screening decisions

The Applicant identifies the Scheme as lying within six surface-water WFD catchments together with the Broadland Rivers Chalk and Crag groundwater body. HFCL independently confirms that the Scheme lies within six WFD surface-water catchments and one groundwater body.

The relevant surface-water bodies are the Hempnall Beck Water Body (GB105034045720), the Tas (Tasburgh to River Yare) Water Body (GB105034051230), the Starston Brook Water Body (GB105034045880), the Broome Beck Water Body (GB105034045930), the Tas (Head to Tasburgh) Water Body (GB105034045730), and the Chet Water Body (GB105034051190). The groundwater receptor is the Broadland Rivers Chalk and Crag Water Body (GB40501G400300). [APP/6.3.9.2 §§3.2–3.8]

The Applicant carries forward only three surface-water bodies into the substantive Stage 2/Stage 3 assessment: Hempnall Beck, Tas (Tasburgh to River Yare), and Starston Brook. Appendix 9.2 expressly states that its detailed scoping assessment concerns those three waterbodies. [APP/6.3.9.2 §4.1.1] Conversely, Broome Beck is screened out at §3.5.4; Tas (Head to Tasburgh) is screened out at §3.6.3; Chet is screened out at §3.7.2; and the Broadland Rivers Chalk and Crag groundwater body is screened out at §3.8.3.

This is a substantial proportion of the identified WFD receptor network. It means that three of six surface-water catchments and the only identified WFD groundwater body do not proceed to the substantive assessment upon which the final no-deterioration conclusion relies.The justification for those exclusions requires particularly close scrutiny because the Applicant's own description establishes that Scheme land or works occur within all of those catchments.

9.6.3 HFCL concludes that the screening-out exercise is inappropriate

HFCL identifies the exclusion of those four receptors as one of the principal deficiencies in the Environmental Statement.

HFCL observes that the Applicant screens out three surface-water catchments essentially on the basis that there are no main rivers or sufficiently substantial watercourses directly within the relevant Scheme footprint. However, HFCL identifies ditches and other water features within the development which connect directly with those WFD waterbodies. It then points to the scale and nature of the construction activity: considerable ground disturbance with the potential to mobilise silt and contaminants including fuels, oils, foul effluent from compounds, plant and equipment.

HFCL consequently concludes: 'The screening out of these water bodies is not appropriate.'

Its criticism of the groundwater screening is equally important. Appendix 9.2 accepts that the entire Order Limits are underlain by the Broadland Rivers Chalk and Crag groundwater body. It nevertheless screens that body out substantially because the indicative area of cable trenches and entry/reception pits is described as 'minimal' relative to the approximately 3,076 km^2 area of the groundwater body. [APP/6.3.9.2 §§3.8.1–3.8.3]

HFCL considers that reasoning inappropriate. It explains that a WFD screening decision should be based upon the likely impact upon the affected part of the groundwater body, not diluted by comparison with the geographical area of the entire groundwater body. Otherwise, a local deterioration affecting groundwater baseflow, a private abstraction or another locally important groundwater resource could effectively disappear mathematically when compared with a waterbody extending over thousands of square kilometres.

HFCL states: 'The decision to screen in or out should be made on the likely impact the scheme may have on any part of the groundwater body, not aggregated across its entire catchment.' It further concludes that the approach gives insufficient consideration to 'the potential for deterioration of water quality in groundwater baseflow or in locally important groundwater resources'.

HFCL therefore identifies the screening-out of three WFD surface-water bodies and one WFD groundwater body, notwithstanding development in their catchments and connecting water features within the Scheme, as requiring further environmental information. The report also expressly criticises the assessment for giving insufficient consideration to the potentially contaminative effects of the development itself.

This criticism is particularly persuasive when Appendix 9.2 is read against the Applicant's own acknowledgement that construction can mobilise sediment and pollution and that drainage controls are necessary to prevent polluted water reaching downstream waterbodies. [APP/6.3.9.2 §§5.1.2–5.1.6] If downstream connectivity is sufficiently real to require mitigation, it must first be sufficiently understood to assess the consequence of mitigation failure or incomplete effectiveness.

9.6.4 Broome Beck illustrates the weakness of the screening methodology

The treatment of Broome Beck provides a clear example. Appendix 9.2 records that CRC8, CRC9 and CRC14 and sub-Sites 3B, 10A, 10B, 10C and 10D lie within the Broome Beck WFD Water Body. It further records that an unnamed tributary of Broome Beck runs along sub-Sites 10A, 10B and 10C and that field drains are present within sub-Sites 10B and 10C and CRC8, CRC9 and CRC14. [APP/6.3.9.2 §3.5.2]

Elsewhere the Applicant's own scoping material described Broome Beck as an ordinary watercourse adjacent to sub-Sites 10A and 10C which becomes a main river shortly downstream of sub-Site 10A. The WFD Assessment itself explains that the unnamed tributary joins Broome Beck approximately 1 km south of sub-Site 10A. [APP/6.3.9.2 §2.4.13]

There is therefore no real dispute about physical connectivity.

The Applicant nevertheless screens the Broome Beck WFD Water Body out. The reasoning is that CRC crossings of field drains will ‘likely’ be drilled using trenchless methods, that the precise depth has not yet been established, and that the relevant small watercourse is not expected to have a high erosive potential. From this the Applicant concludes that no impact to the waterbody is expected. [APP/6.3.9.2 §§3.5.3–3.5.4]

That reasoning is too narrow. It considers principally the physical effect of the cable crossing itself. It does not adequately test all of the mechanisms by which Scheme activities elsewhere within the same connected drainage network may reach Broome Beck. Those mechanisms include soil disturbance, sediment mobilisation, construction compound runoff, accidental releases of fuel or oil, drainage from access tracks, changes in field drainage, disturbed or intercepted drains, dewatering, and potentially contaminated water arising from maintenance or emergency events. Appendix 9.2 itself subsequently acknowledges that the construction, operational and decommissioning phases may increase runoff and transport pollution and sediment to watercourses. [APP/6.3.9.2 §5.1.6]

NCC's LLFA evidence identified Woodton as downstream of Sites 10A–10D and noted that those catchments are already the subject of the DEFRA/EA Reclaim the Rain programme. It recorded that the proposed Scheme had already affected implementation of one element because of CRC9 and criticised the Applicant for not adequately reflecting this catchment context in its flood assessment.

This is precisely why the WFD assessment should not be reduced to the question of whether a cable is trenched through the bed of Broome Beck. The Scheme occupies and disturbs land connected to the waterbody through a network of drains. Those pathways require assessment.

BEPS therefore submits that screening Broome Beck out simply because trenchless crossings are expected to avoid direct bed disturbance does not adequately demonstrate absence of WFD effect.

9.6.5 River Tas and Hempnall Beck require a precautionary assessment commensurate with chalk-stream sensitivity

The Tas/Hempnall system is among the most environmentally sensitive components of the Scheme's water environment.

The Applicant also acknowledges that Hempnall Beck is crossed or affected by multiple Cable Route Corridors. Appendix 9.2 records CRC4, CRC6, CRC7 and CRC8 as crossing watercourses within the Hempnall Beck Water Body and states that crossings will 'likely' be drilled beneath watercourses using trenchless methods, subject to detailed design. [APP/6.3.9.2 §§3.2.4–3.2.6]

For the Tas (Tasburgh to River Yare) waterbody, sub-Sites 7C, 7D, 7E, 7F, 7K, 7L, 8A and 8B lie within the catchment. The assessment records a new access crossing of a field drain at Site 7F and a CRC crossing of the unnamed tributary of the River Tas between Sites 8A and 8B. [APP/6.3.9.2 §§3.3.4–3.3.6]

The Environment Agency's scoping response expressly identified the River Tas as a chalk-stream priority habitat and required its sensitivity to be taken into account. It also identified white-clawed crayfish records on the River Tas and required survey at relevant locations once works affecting watercourses were known.

The subsequent evidence concerning white-clawed crayfish strengthens the need for precaution. BEPS has evidence of a breeding population within the connected Tas chalk-stream system and has separately provided that evidence in its ecology submissions. That matter is principally addressed in the Ecology chapter, but it is directly relevant here because crayfish sensitivity demonstrates the ecological consequence of sedimentation, pollution, hydrological disturbance and biosecurity failures within the connected water environment.

The assessment also needs to account for the conditions under which the later crayfish work has been undertaken. BEPS and the PI have raised concern that surveys have taken place during a period of serious drought, when water levels and occupancy/detectability conditions differ materially from normal conditions.

For WFD purposes, the significance extends beyond a protected species. Chalk streams are groundwater-dependent systems. Their condition can respond to groundwater quantity and quality, sediment loading, physical habitat alteration and barriers or modifications to channel morphology. The assessment therefore needs to address hydrological and hydrogeological pathways together. The Applicant's mitigation proposals recognise some of those risks. Appendix 9.2 states that construction may disrupt material and fine sediment, affecting habitats, sediment transport, deposition and water quality. It contemplates in-channel silt control, including temporary dams, fish-friendly pumping and silt curtains. [APP/6.3.9.2 §§5.1.2–5.1.5]

That acknowledgement means the potential pathway is not hypothetical. The question is whether the Applicant has demonstrated, before consent, that all relevant crossings and works can be undertaken without deterioration, rather than assuming that future CEMP measures will necessarily prevent it.

9.6.6 Starston Brook must be considered together with the Site 1 infrastructure concentration

Starston Brook is carried forward into the Applicant's detailed WFD assessment and therefore presents a different issue from Broome Beck, Chet and Tas (Head to Tasburgh). The question is whether the assessment of it is sufficiently complete given what is proposed within its catchment.

Appendix 9.2 records Starston Brook as having Moderate ecological status. More importantly, it states expressly that the Starston Brook Water Body covers Sites 1 and 2 'as well as the BESS'. CRC1–CRC4 are also located within this waterbody catchment, with watercourse crossings in CRC2, CRC3 and CRC4. [APP/6.3.9.2 §§3.4.1–3.4.6]

This places the Site 1 infrastructure hub within a WFD catchment. That infrastructure is materially different from ordinary panel fields. It includes the BESS, National Grid Substation, project substation infrastructure and substantial associated hardstanding and drainage. It introduces potential contaminant sources including transformer fluids, operational vehicle use and BESS/firewater risks.

Appendix 9.2 nevertheless treats much of the pollution risk through reliance on management plans and drainage. It concludes that pollution-prevention measures incorporated within the application will avoid deterioration and that potential future improvement works will not be impeded. [APP/6.3.9.2 §3.4.11 and §§5.1–5.2]

BEPS submits that this conclusion should be tested against the outstanding drainage and hydrogeological issues at Site 1. If the detailed drainage arrangement, combined firewater/rainfall containment, infiltration assumptions and groundwater pathways are not yet finally demonstrated, those uncertainties necessarily affect the confidence that can be placed in the WFD conclusion for Starston Brook.

That is particularly so because the Applicant's WFD assessment is principally qualitative. It does not model the migration or concentration of a major contaminant release from the Site 1 infrastructure through the receiving drainage or groundwater system. It assumes that the drainage and management controls will work as intended.

For a WFD receptor already below Good ecological status, reliance on future controls should not replace the demonstration that the residual pathway has been adequately characterised.

9.6.7 Screening out the Broadland Rivers Chalk and Crag groundwater body is particularly difficult to justify

BEPS considers the treatment of the Broadland Rivers Chalk and Crag groundwater body to be one of the most significant weaknesses in Appendix 9.2. The Applicant accepts that the Order Limits are underlain by this groundwater body and gives its area as approximately 3,076 km^2. It also records its status as Poor. [APP/6.3.9.2 §3.8.1]

The principal reasoning for screening it out is that cable excavations will be backfilled, no change to groundwater pathways is anticipated, and the area occupied by trenches and HDD entry/reception pits is small compared with the 3,076 km^2 groundwater body. The Applicant therefore

characterises any impact as negligible and screens the groundwater body out. [APP/6.3.9.2 §§3.8.2–3.8.3]

This approach is problematic for several reasons:

First, the groundwater issue is not confined to the physical area occupied by cable trenches. The Scheme contains extensive piled or deep-founded infrastructure, BESS and substations, drainage features, compounds, fuel and oil sources, HDD works and potential firewater. HFCL identifies precisely this failure in relation to the ground-conditions assessment: the Applicant focuses heavily on pre-existing contamination while insufficiently considering the Scheme itself as the source of potential contamination.

Second, the relevant receptor is a Principal Aquifer system used for water supply. Private abstractions are located throughout and around the Scheme, and Source Protection Zones affect parts of the Order Limits. A local adverse effect on groundwater supplying an individual abstraction is not rendered environmentally irrelevant merely because the groundwater body itself extends across 3,076 km^2.

Third, the Applicant has not presented the coherent conceptual hydrogeological model necessary to support its assumption that excavation and subsequent backfilling will produce no material change in flow pathways. As addressed at §9.3 of this Written Representation, HFCL expressly concludes that the Applicant does not provide or define a hydrogeological conceptual model.

Fourth, the Private Water Supplies evidence demonstrates why local groundwater effects matter. An effect upon a locally important abstraction can have direct human-health and water-resource consequences even if it is geographically minute when compared with the whole WFD groundwater body.

HFCL's conclusion is therefore compelling: the screening decision should have considered the likely effect upon the relevant part of the groundwater body and the local groundwater receptors dependent upon it, not simply the percentage of total groundwater-body area physically occupied by excavation.

9.6.8 The assessment lacks sufficient quantitative and catchment-scale analysis

The WFD Assessment is predominantly qualitative. WFD compliance assessments do not invariably require numerical modelling of every parameter. The problem here is that the Applicant uses qualitative assumptions to exclude effects in a particularly large, complex and connected development while important components of the source-pathway-receptor model remain uncertain.

There is no substantive pollutant-transport modelling demonstrating how an accidental release from the BESS or major substations would behave within groundwater or connected surface drainage. There is no quantitative sediment-load assessment for the extensive construction works and crossings. There is no groundwater transport model linking potential Scheme sources to private abstractions, groundwater baseflow or downstream watercourses.

Similarly, the assessment does not provide an integrated catchment-scale analysis of multiple Scheme pressures within individual WFD catchments. The Scheme is unusual because the same development introduces large areas of construction activity, cable corridors, crossings, access tracks, compounds, solar arrays and major electrical infrastructure across several catchments simultaneously. Each individual activity may produce a small effect; their combined consequences within a receiving catchment require consideration.

This issue is reinforced by the LLFA's approach to flooding. Norfolk County Council expressly supported assessment of cumulative effects from other solar/BESS projects because downstream flood consequences can extend considerably beyond individual sites. The same hydrological reality is relevant to WFD: water and sediment do not respect parcel boundaries.

Crossing-specific detail also remains incomplete. Appendix 9.2 repeatedly states that trenchless crossings are 'likely' and subject to detailed design. Yet PINS required the WFD assessment precisely because the nature and location of crossings were uncertain. Until the actual crossing envelopes, depths, construction methods, geological conditions and failure pathways are sufficiently defined, categorical conclusions of no WFD effect require caution.

9.6.9 The Applicant must demonstrate both no deterioration and no impediment to achieving future objectives

The WFD Assessment correctly identifies two materially different obligations. Its summary of Anglian River Basin Management Plan ['RBMP'] objectives includes preventing deterioration of surface-water and groundwater status and achieving the relevant environmental objectives. [APP/6.3.9.2 §3.9.1]

The final assessment likewise says both that the Scheme will not cause deterioration and that it will not prevent future work improving waterbody classifications. [APP/6.3.9.2 §§5.2.1–5.2.2]

Those two propositions should be tested separately. The first question is whether the Scheme could cause deterioration in the status or relevant quality elements of an affected waterbody.The second is whether the Scheme could prevent or impede measures necessary to achieve or maintain the applicable environmental objectives in the future.

The second question is particularly important where existing waterbodies are already below Good status. The Applicant's own baseline records Hempnall Beck as Poor and other relevant surface-water bodies as Moderate or Poor, with chemical failures. Chet is itself recorded in Appendix 9.2 as having Poor ecological status, yet it is screened out because works maintain a nominal 10 m watercourse buffer. [APP/6.3.9.2 §§3.7.1–3.7.2]

A management-plan commitment designed to prevent immediate construction pollution is not, without more, proof that the Scheme will not impede longer-term catchment restoration. That requires consideration of permanent crossings, drainage changes, altered land management, long-term infrastructure, groundwater interactions and the compatibility of the Scheme with existing or planned river-basin measures.

This distinction is especially relevant where Norfolk County Council identifies existing catchment interventions such as Reclaim the Rain at Woodton and prospective natural flood-management measures in other downstream communities.

BEPS therefore submits that the Applicant's reliance on CEMP, OEMP, DEMP and future detailed drainage arrangements cannot by itself establish both limbs of the WFD test. The assessment must first identify the relevant source-pathway-receptor relationships, then demonstrate that the secured mitigation is sufficient both to prevent deterioration and to avoid obstructing the achievement of future environmental objectives. For the reasons above, that has not yet been demonstrated for all seven identified WFD receptors.

The September 2026 white-clawed-crayfish position statement reinforces the importance of this catchment approach. The Applicant now accepts potential presence of white-clawed crayfish within the River Tas and other hydrologically connected suitable habitat and bases its case upon control of the relevant pathways rather than demonstrated absence. The same hydrological connectivity must therefore be reflected consistently in the WFD assessment: connectivity cannot be relied upon when assuming sensitive receptors but artificially narrowed when assessing how sediment, pollution or altered flow may reach them.

9.7 Chalk Streams, Aquatic Ecology and HRA Connectivity

The August 2026 NPPF now gives additional express policy recognition to water-quality effects, including effects upon chalk streams, within Policy P3. That reinforces rather than creates the sensitivity identified throughout the earlier scoping record: the River Tas was already identified by the Planning Inspectorate as chalk-stream priority habitat which had to be fully considered in the ES.

9.7 Water Environment and Ecology Interface

The water-environment assessment cannot be considered wholly separately from the ecological assessment because the ecological value of the affected watercourses is dependent upon the physical and chemical functioning of those waters.

This is particularly important for the River Tas and Hempnall Beck. The Environment Agency specifically identified the River Tas as a chalk-stream priority habitat at scoping stage and opposed the proposed exclusion of water-environment and associated ecological effects. It also recorded white-clawed crayfish on the River Tas and required surveys at relevant locations once the nature of works affecting watercourses was established. BEPS has provided the applicant with evidence from Norfolk Rivers Trust of breeding white-clawed crayfish in the Tas within 2 KM of the scheme.

The importance of chalk-stream status is not simply that such rivers contain valued species. Chalk-stream ecology depends upon the interaction between groundwater quantity and quality, channel morphology, gravels, sediment regime, temperature and water chemistry. An effect on groundwater, sediment transport or channel form can therefore produce an ecological effect even where no direct pollution incident occurs.

The same principle applies to the connected Waveney-system watercourses. Appendix 9.2 acknowledges field drains and tributaries within Scheme parcels that connect to Broome Beck and Starston Brook. Those smaller features are potential ecological and pollution pathways even where they are not themselves separately classified as WFD waterbodies.

BEPS's evidence concerning white-clawed crayfish within the River Tas chalk-stream system should be read primarily alongside Chapter 6: Ecology and Biodiversity. For the purposes of Chapter 9, its relevance is that a sensitive aquatic receptor exists within the connected system and is particularly vulnerable to sedimentation, pollution, hydrological disturbance and biosecurity failures.

The circumstances of subsequent survey work also require care. BEPS has raised concern that relevant survey work has taken place during unusually severe drought conditions. Low-flow and drought conditions may alter habitat availability and detection conditions.

The Applicant's own WFD Assessment recognises the possibility of sediment mobilisation and the need for in-channel silt-management measures during construction. [APP/6.3.9.2 §§5.1.2–5.1.5] Such measures are also relevant to crayfish, fish, aquatic invertebrates and channel habitat. Biosecurity is equally important because construction activity moving between watercourses can provide a pathway for invasive species or disease.

The detailed ecological consequences are addressed elsewhere in BEPS's Written Representations. The water-environment point is that these ecological receptors reinforce the need for a precautionary, catchment-based assessment of hydrological connectivity rather than assessment of individual crossings in isolation.

9.7.1 Hydrological pathways to designated sites

The same connectivity issue has consequences for the Habitats Regulations assessment.

At scoping stage, the Applicant sought to scope out potential effects on the Norfolk Valley Fens SAC, The Broads SAC and Broadland Ramsar site on the basis of spatial separation and/or absence of hydrological pathways. PINS expressly declined to agree. It noted the presence of waterways within the Proposed Development and concluded that it was not then clear whether a hydrological link existed. The Inspectorate therefore required the ES either to assess the matter or to provide a robust justification, supported by relevant studies or surveys and evidence of stakeholder agreement, explaining why significant effects were unlikely.That is an important starting point because subsequent application evidence accepts hydrological connectivity more broadly.

The FRA identifies designated sites considered to be hydrologically linked to the Order Limits through watercourses and groundwater flow and therefore potentially capable of being affected by the Scheme. That acknowledgement is consistent with the wider evidence that groundwater and surface water interact and that the Scheme drains through tributaries into larger river systems.

The existence of connectivity does not, by itself, establish a likely significant effect upon a European site. Nor does it prove an adverse effect on integrity. BEPS does not put the matter that way. The issue is evidential: once a credible hydrological pathway is identified, exclusion of effects

requires an assessment of the pathway, the potential source of change and the sensitivity of the downstream receptor.

There is an evident tension if the same hydrological network is treated as sufficiently connected to identify designated sites as potential receptors in the FRA, but downstream effects are then excluded elsewhere through distance or generic mitigation assumptions without equivalent pathway analysis.

Broome Beck is particularly relevant to that issue. The Applicant expressly identifies its tributary network within Sites 10A–10C and acknowledges downstream connection to Broome Beck, which in turn forms part of the wider Waveney drainage system. Screening the WFD waterbody out because particular cable crossings are anticipated to be trenchless does not answer the broader question of downstream contaminant or sediment pathways from Scheme activity within its catchment.

BEPS therefore requests that the ExA considers the HRA and WFD assessments consistently with the Applicant's own hydrological evidence. Where hydrological connectivity is accepted, the consequences of that connectivity should be traced sufficiently far downstream to demonstrate why effects can safely be excluded.

9.8 Flood Risk and Surface-Water Drainage

9.8 Flood-risk evidence remains incomplete

Flood risk is not a separate issue from the wider water-environment case. Surface-water pathways determine the movement of water, sediment and pollutants across and beyond the Scheme. The effectiveness of the drainage strategy therefore affects not only flood risk but water quality, WFD receptors, private water supplies and the containment of potentially contaminated runoff.

The Applicant has materially developed its FRA since the PEIR stage. BEPS recognises that. The present objection should therefore not be characterised as alleging that no FRA or drainage strategy exists. The issue is whether the final material provides sufficient site-specific evidence to demonstrate that the enormous dispersed development can operate within its assessed envelope without increasing flood risk elsewhere, and whether the matters left to detailed design are genuinely matters of refinement rather than unresolved questions of feasibility.

The concerns expressed by the LLFA remain particularly relevant because they identify precisely where apparently minor assumptions can have substantial catchment consequences: impermeable area, construction compaction, access-track construction, concrete panel foundations, overland flow routes, infiltration and downstream flood sensitivity.

9.8.1 The Planning Inspectorate required a robust assessment of flood risk, resilience and off-site effects

PINS addressed flood risk expressly in Scoping Opinion ID 3.2.3. Although it accepted that the detailed FRA could accompany the application rather than requiring flood risk to remain as a

standalone EIA effect in precisely the form proposed, it imposed substantive requirements upon the FRA.

The Inspectorate required the FRA to follow Environment Agency standing advice and to address the Sequential and Exception Tests where relevant. It required the development to demonstrate flood resilience over its anticipated 60-year operational life and specifically required confirmation that flood-sensitive equipment would remain operational during the 0.1% AEP event. Crucially, it also required consideration of off-site surface-water drainage and flood-risk effects, including the potential for the solar installation itself to increase the rate of runoff beyond the site boundary.

That requirement must be read alongside the EA and LLFA scoping advice. The EA warned that some small ordinary watercourses crossing the Scheme had no mapped Flood Zones because their catchments fell below the threshold used in generalised national modelling. Absence of Flood Zone mapping therefore did not mean absence of fluvial risk.

The EA also warned that the Risk of Flooding from Surface Water dataset had recently been updated and that some existing hydraulic modelling for the Hempnall Beck, River Tas and Broome Beck used superseded climate-change allowances.

The LLFA went further. It said at scoping stage that substantial construction areas could increase surface-water flood risk through compaction and temporary works and required surface-water drainage arrangements for construction as well as operation. It also required modelling of overland flow routes and at least one demonstrably feasible means of surface-water disposal.

The evidential benchmark was therefore clear before submission: the final FRA needed to demonstrate rather than assume that the Scheme would not increase risk within or downstream of its numerous catchments.

The August 2026 NPPF reinforces those requirements. Its flood-risk objective is to minimise risks from all sources of flooding, taking climate change into account, by ensuring that development will remain safe throughout its lifetime without increasing flood risk elsewhere. Policy F5 retains the sequential approach where applicable, while Policy F8 requires development with drainage implications to incorporate sustainable drainage systems in accordance with the applicable national standards.

For East Pye, the principal issue is not simply the formal Flood Zone classification of individual parcels. It is whether the dispersed Scheme, including compacted construction areas, access tracks, major electrical compounds and altered overland-flow routes, has been assessed sufficiently to demonstrate that runoff will not be transferred to downstream receptors over the full 60-year operational period and during construction, replacement and decommissioning.

9.8.2 Starston Brook illustrates the continuing limitations of the flood evidence

The Starston Brook evidence is particularly important because the Site 1 infrastructure concentration lies within its WFD catchment.

EA correspondence reproduced in the FRA records that detailed flood levels were not available for the relevant Starston Brook area. The Environment Agency explained in March 2025 that there was no detailed local hydraulic model capable of providing the required levels and that the available generalised JFLOW-type information was not suitable for detailed decision-making. The consequence identified by the EA was that, without further modelling, the relevant fluvial risk remained uncertain.

The Applicant's eventual assessment relies instead to a significant extent upon mapped Flood Zones, LiDAR/topographic relationships and elevation differences to infer the relationship between the Site 1 infrastructure and the Starston Brook floodplain.

That may provide useful screening evidence, but it is not equivalent to detailed hydraulic modelling of the watercourse.

The LLFA identified related deficiencies in its PEIR response. It said that the FRA did not provide a figure supporting the assumptions made concerning Starston Brook, that 2 m LiDAR contours were insufficiently detailed for the purpose, and that watercourses on the relevant figure were not named, making it difficult to interrogate the conclusions.

The issue should not be overstated. The Applicant has subsequently refined the infrastructure location, and the current Site 1 layout is not identical to the early design which prompted some of the EA correspondence. Nevertheless, the underlying evidential limitation remains relevant wherever the Applicant relies upon approximate topographic separation rather than site-specific modelling to establish the design flood.

That is particularly important because the major Site 1 infrastructure includes long-lived flood-sensitive electrical equipment and substantial impermeable areas. A conclusion of acceptable risk should be supported by evidence commensurate with the consequence of failure.

9.8.3 Numerous surface-water pathways cross the Scheme

The Scheme is traversed by a substantial network of mapped surface-water flow routes, ordinary watercourses, drains and depressions.

The Applicant's original scoping evidence already identified surface-water flow routes crossing the Cable Route Corridors and a number of individual sites. Some routes were predicted to carry substantial depths in extreme events: the Applicant recorded typical maximum depths below 300 mm but depths of 300–900 mm in the centres of some flow routes during the 0.1% AEP event, with one CRC6 route exceeding 900 mm.

The final FRA contains considerably more mapping, but the existence of these routes remains important because the development introduces obstructions, compacted surfaces, tracks, trenches, buildings, compounds and potentially concrete panel supports across a very large area.

The LLFA specifically identified significant numbers of surface-water flow routes within development areas and noted that some coincide with ordinary watercourses.

The catchment consequences are not theoretical. NCC identifies Saxlingham Nethergate as sensitive to overland flow from fields upstream of the village, with Site 7D within the relevant upstream area. It identifies Woodton downstream of Sites 10A–10D and within the Reclaim the Rain programme. It identifies Long Stratton as having experienced significant recent flooding, with CRC4 capable of interacting with upstream catchment areas, and records historic and recent flooding around Hempnall.

The correct question is therefore not simply whether a solar panel itself constitutes a substantial impermeable structure. It is whether the totality of development within each catchment changes the rate, concentration or route by which rainfall reaches those downstream receptors.

That requires consideration of individual development components and their cumulative effect within each receiving catchment.

9.8.4 The Applicant's treatment of impermeable area has been directly challenged by the LLFA

The LLFA's response is particularly important because it directly challenges a number of assumptions relied upon by the Applicant about what should count as impermeable.

NCC states that the Applicant underestimated impermeable area and had not adequately investigated ground conditions or the viability of infiltration. It expressly disagreed with the Applicant's attempt to scope out changes in surface-water runoff and groundwater recharge resulting from impermeable areas associated with panels and infrastructure buildings.

Its criticism extends beyond conventional buildings.

The LLFA treats new and upgraded access tracks as increases in impermeable area because they require substantial compaction. It explains that Type 1 material is not porous and can become effectively as impermeable as concrete with compaction and age; even more open-graded Type 3 material is not completely permeable when compacted. NCC therefore required sufficient space for SuDS and a viable discharge location rather than simply assuming tracks would absorb water at greenfield rates.

NCC likewise considers gravelled inverter, transformer and switchgear platforms as effectively impermeable because of the compacted structural platform required underneath them.

The LLFA also identified temporary hardstanding, offices and welfare facilities as requiring construction-phase surface-water management and noted that these had not been adequately incorporated into the earlier drainage assessment.

These are particularly important observations for a Scheme of this scale. An individual track or compound may appear modest compared with the entire Order Limits, but the relevant hydrological question is the cumulative impermeable and compacted area within each local catchment and the resulting concentration of runoff.

The Applicant's examination responses appear repeatedly to rely upon the proposition that final detailed drainage will be secured by DCO Requirement. BEPS does not object in principle to

detailed drainage design being refined after consent. That is conventional where the environmental feasibility of the drainage solution has already been established.

The distinction here is critical:

Securing detailed design later is not a substitute for providing sufficient present evidence to establish that a workable drainage solution exists within the assessed envelope.

Where infiltration has not yet been demonstrated, the exact impermeable area remains flexible, tracks and compounds may alter local runoff, and sensitive downstream communities already experience flooding, the question is not merely how a known drainage solution will be detailed. It is whether the development has demonstrated that sufficient land, storage, discharge capacity and appropriate pathways exist to deliver the required solution without increasing risk elsewhere.

That question requires resolution at examination stage.

9.8.5 The assumption that solar arrays will have negligible runoff effects requires site-specific justification

The Applicant relies in part upon the proposition, reflected in national policy and literature such as Cook and McCuen, that solar panels mounted above vegetated ground do not necessarily increase runoff materially because rainfall continues to reach and infiltrate the underlying soil.

BEPS does not contend that solar panels should automatically be treated as equivalent to conventional impermeable roof area; the concern is whether concentrated drip lines, vegetation condition, soil compaction, slope and associated infrastructure have been represented adequately in the reasonable worst-case runoff assessment.

The issue is whether the Applicant has demonstrated that the general proposition applies across the actual East Pye site, with its soil conditions, slopes, array designs, construction methods, grazing/vegetation regime and antecedent moisture conditions.

The LLFA's evidence shows why that distinction matters. It specifically highlights operational rutting beneath panels during intense storms and states that such rutting can alter natural flow paths. It criticised the Applicant for failing adequately to identify and manage that mechanism.

NCC also identified the unresolved possibility that arrays may use surface-mounted concrete blocks rather than only narrow driven piles. It explained that concrete blocks placed in surface-water flow paths or areas of ponding could reduce available storage, displace water or alter flow routes and therefore required their avoidance or appropriate offset from those areas.

That is important because the hydrological behaviour of narrow pile-driven supports is not necessarily representative of the reasonable worst-case design where concrete shoes remain within the Rochdale Envelope.

The effect of concentrated panel-edge runoff must also be considered against the site's soil characteristics. Rain falling across the panel surface is discharged along panel edges rather than uniformly onto the soil beneath. Whether that materially alters runoff at catchment scale depends upon ground cover, slope, soil permeability and management. In well-vegetated permeable conditions the effect may be limited. On compacted, bare, rutted or poorly infiltrating ground it can increase local erosion and concentrated flow.

That is the point at which the Applicant's reliance on general literature must be tested against East Pye's specific conditions. NCC records poor infiltration rates within areas of the Scheme which already contribute to local flooding. The Applicant also proposes extensive construction and recurrent replacement activity over the Scheme's long life.

A conclusion of negligible operational runoff effect is therefore only robust if the conditions upon which that conclusion depends — effective vegetation, absence of damaging compaction or rutting, suitable foundation design, protected flow paths and appropriate drainage — are both demonstrated to be feasible and secured for the duration of the development.

9.8.6 Construction compaction requires separate assessment from operational panel runoff

Construction-phase runoff presents a different mechanism and should not be subsumed within the general proposition that operational solar arrays remain largely permeable.

East Pye will require substantial construction traffic, HGV movements, temporary compounds, access tracks, cable construction, plant movements, storage areas and working corridors. Those operations can compact agricultural soils before the proposed operational vegetation regime is established.

The LLFA identified this issue from the outset. At scoping stage it warned that substantial construction areas could increase surface-water flood risk because of compaction and temporary works and stated that a construction-phase surface-water drainage plan would be required. It subsequently reiterated that temporary hardstandings, welfare facilities and other supporting infrastructure had not been adequately incorporated into the drainage assessment.

Compaction matters hydrologically because it reduces infiltration and can increase the proportion and rate of rainfall becoming surface runoff. It can also redirect runoff onto tracks, roadways, neighbouring fields and existing drainage routes. Where construction occurs upstream of known flood-sensitive communities, those effects require consideration within the local catchment rather than averaged across the whole development.

The temporal dimension is also important. The Scheme's construction phase is prolonged and geographically extensive. It is not a short-lived disturbance confined to one compound. Moreover, the Applicant anticipates replacement of solar panels during the operational period and replacement of BESS infrastructure potentially several times during the Scheme's life. The LLFA specifically questioned whether those replacement activities would require renewed construction compounds and hardstanding and where those would be located.Construction effects therefore cannot be assumed to occur only once.

The proper assessment needs to identify the maximum concurrent area of disturbed or compacted ground within each catchment; the location of construction compounds and haul/access routes; the arrangements for intercepting dirty water and sediment; the receiving drainage pathway; and how soil structure and infiltration will be restored following construction.

This also links directly to WFD compliance. Appendix 9.2 itself recognises that construction has the potential to disrupt fine sediment and transport pollutants to watercourses. [APP/6.3.9.2 §§5.1.2–5.1.6] It follows that the effectiveness of construction drainage and soil-management controls is part of the evidential basis for the Applicant's no-deterioration conclusion.

BEPS's position is therefore not that construction inevitably causes unacceptable flooding or WFD deterioration. It is that, given the Scheme's scale, the known sensitivity of downstream communities, the extensive mapped flow network, the LLFA's concerns about compaction and impermeable area, and the dependence of the WFD conclusions upon effective sediment and runoff control, the Applicant must demonstrate those effects and their mitigation at an appropriate catchment scale rather than relying principally upon generic management-plan commitments.

The evidence presently before the Examination does not yet provide sufficient confidence that this has been achieved.

9.9 Drainage of the BESS and Substations

9.9 Major Infrastructure Drainage and Containment

The drainage arrangements for the BESS, National Grid Substation and Project Substations require separate consideration from the drainage of the solar arrays themselves. These areas comprise large concentrations of hardstanding, buildings, transformers, switchgear, access infrastructure and other operational equipment. They therefore generate different quantities and qualities of runoff and present materially different pollution consequences if the drainage system fails.

This distinction was recognised from the earliest stages of the EIA. The Applicant’s Scoping Report accepted that compounds, substations, cable routes and the BESS would require dedicated surface-water drainage strategies to manage the increase in runoff from impermeable areas, with water-quality treatment before discharge to a receiving watercourse or the ground. The Environment Agency went further and required the drainage strategy to include specific measures for the isolation and removal of potentially contaminated runoff from BESS and substation infrastructure, including a detailed emergency drainage plan, impermeable lining beneath the relevant compounds, sufficient storage capacity for contaminated firewater even during intense rainfall, and an automatic containment system with backup in the event of power failure.

The final application introduces more detail than was available at PEIR stage, but the fundamental issue remains whether the major infrastructure drainage solutions have been demonstrated sufficiently to establish environmental acceptability now, rather than simply being capable of further refinement after consent. For BEPS, Site 1 and Site 5 require especially close scrutiny because they combine large areas of electrical infrastructure with sensitive groundwater settings, private water supplies and connected surface-water receptors.

9.9.1 Site 1 – BESS, National Grid Substation and 400kV Project Substation

Site 1 is the most significant single concentration of potentially polluting infrastructure within the Scheme. It contains, or is directly associated with, the BESS, the National Grid Substation, 400kV Project Substation infrastructure and associated roads, drainage, hardstanding and ancillary development. This is materially different from a field of pile-mounted solar panels. It is a substantial industrial compound in hydrogeologically sensitive surroundings.

The Applicant's own earlier material confirms the sensitivity of the location. Site 1 is underlain by Chalk classified as a Principal Aquifer, while the overlying Lowestoft Formation is a Secondary Undifferentiated Aquifer. The same material states that Site 1 lies within a surface-water Drinking Water Safeguard Zone and within Source Protection Zone III, and identifies two unnamed watercourses entering the site from the south and west. The BESS site itself was likewise identified as underlain by Lewes Nodular Chalk Principal Aquifer and Lowestoft Formation, and as lying within SPZ III and a surface-water Drinking Water Safeguard Zone.

These baseline facts materially affect the standard of evidence that should be expected. The issue is not simply whether a drainage basin can be designed in engineering terms. The drainage system must prevent routine and accidental contaminants from reaching either the Principal Aquifer or connected surface-water features. It must also remain effective during extreme rainfall and during an emergency event.

The Environment Agency identified this issue explicitly. At scoping stage it said that the proposed drainage strategy did not explain how potentially contaminated water, particularly firefighting water, would be managed, and highlighted the BESS, National Grid Substation and Scheme substations as being situated above SPZ III Principal Aquifer, with SPZ II within 1 km. It required impermeable bases or layers beneath the BESS and substation infrastructure, sufficient firewater storage capacity even during intense rainfall, and an automatic containment system with backup power arrangements.

The LLFA was similarly concerned about the amount of impermeable area. It treated the BESS compound as an impermeable area because of the likely reinforced concrete slab or concrete-piled construction and therefore expected the design to identify sufficient space for sustainable drainage and demonstrate that runoff would not increase flood risk. It separately required information on how fire-suppression systems associated with transformers would interact with the drainage system.

The final FRA proposes a lined drainage system for the BESS and substations, with runoff collected through engineered drainage and ultimately discharged at a controlled rate to the nearest suitable ditch or watercourse. For the BESS, the drainage approach includes impermeable lining intended to prevent contaminated runoff infiltrating to groundwater. The Applicant has also calculated substantial attenuation-storage requirements and relies on storage within the drainage system and associated sub-base.

Those measures are directionally appropriate. The difficulty is that they remain materially dependent upon detailed design. The final size, geometry, depth and precise arrangement of attenuation features are to be refined later. The final distribution of impermeable area likewise

remains subject to the detailed layout of battery units, substations, roads and ancillary infrastructure. In other words, the application contains a drainage concept and indicative calculations, but not yet a final engineered system demonstrated against all relevant failure and exceedance scenarios.

That distinction matters particularly because Figure 16.5 shows a dense concentration of private water supplies around the Site 1/BESS/Grid Hub area. The hydrogeological assessment does not demonstrate, receptor by receptor, which of those supplies lie hydraulically downgradient of the major infrastructure or how a failure of containment would propagate. The drainage design therefore cannot be assessed solely by reference to the compound boundary. Its adequacy depends on the consequences if contaminated water escapes that boundary.

The local surface-water setting adds further complexity. Site 1 and the BESS sit within the Starston Brook WFD catchment. That means that controlled surface-water discharges, exceedance flows or emergency releases are not environmentally isolated. The WFD Assessment itself recognises the Starston Brook catchment as one of the waterbodies requiring substantive assessment. Accordingly, the operational drainage design for Site 1 is relevant simultaneously to flood risk, WFD compliance, groundwater protection and private-water-supply protection.

BEPS therefore does not contend that no drainage solution is conceivable. The objection is that the application has not yet demonstrated, at the level necessary for consent, that the proposed solution is sufficiently defined, spatially accommodated and resilient to simultaneous flooding and pollution events. That is especially important in a Principal Aquifer setting with nearby private drinking-water supplies.

9.9.2 Site 5 – 400kV Project Substation

Site 5 requires separate treatment because it represents a second major infrastructure concentration in a different hydrological setting.

The proposed 400kV Project Substation at Site 5 introduces a large impermeable compound containing transformers, switchgear, access routes and associated operational infrastructure. The Environment Agency specifically identified Site 5 as requiring an expanded groundwater-abstraction search. It stated that the 250 m search buffer used for the proposed Site 5 substation was insufficient and required the search for groundwater abstractions and Source Protection Zones to be extended to 1 km to ensure consistency with the assessment of the BESS and other substations.

That comment is important because it demonstrates that the hydrogeological zone of influence for Site 5 cannot sensibly be defined by the limited receptor mapping closest to the substation. The same EA response warned that, until design parameters were established, HDD and foundation construction could affect the bedrock aquifer or Secondary A Aquifers.

Figure 16.5 shows multiple private water supplies in and around Site 5 and the proposed 400kV substation area. That receptor concentration is particularly significant given the absence of a receptor-specific hydrogeological model. As with Site 1, a radial plot does not establish whether any particular well or borehole is hydraulically connected to the proposed infrastructure.

The surface-water setting is also important. Site 5 sits within the wider Tas/Hempnall system and is connected through local ditches and culverted drainage features. Those local drainage features provide the route by which routine or accidental runoff from the 400kV substation could move towards downstream receptors. The question is therefore not simply whether the substation compound itself lies outside a main-river channel.

The final FRA provides indicative storage-volume calculations for Site 5 but, critically, detailed InfoDrainage modelling for the Site 5A 400kV substation was not completed in the same way as for some of the other major compounds. Instead, the application derives an indicative attenuation-storage range and leaves the detailed drainage form, depth, layout and discharge arrangements for later design.

That is a material distinction. At Site 5, where there are multiple nearby PWS receptors and functional drainage connectivity towards the Tas system, the Applicant is seeking to rely on an outline design before demonstrating the detailed relationship between runoff generation, attenuation capacity, discharge route, exceedance route and contamination containment.

The ecological sensitivity downstream reinforces the point. The Tas system includes chalk-stream habitat and aquatic receptors requiring high levels of protection. The EA expressly identified the River Tas as a chalk-stream priority habitat and required appropriate consideration of its sensitivity. In such circumstances, the drainage case for Site 5 should demonstrate not simply that runoff will be 'controlled', but what happens if the primary drainage route is surcharged, blocked, overwhelmed or contaminated.

BEPS therefore submits that Site 5 remains an unresolved water-environment hotspot. The combination of nearby private supplies, Principal or secondary aquifer sensitivity, incomplete detailed drainage modelling, downstream hydrological connectivity and high ecological sensitivity requires a more complete demonstration than is presently provided.

9.9.3 The Applicant's reliance on Requirement 11 does not resolve the present evidential gaps

In responding to Norfolk County Council, the Applicant relies repeatedly on the proposition that detailed surface-water drainage design will be secured after consent through Requirement 11 of the draft DCO.

BEPS accepts that detailed drainage design can properly be secured by requirement in principle. That is conventional where the application has already established the environmental feasibility of the drainage system, identified the necessary land-take, demonstrated sufficient storage and discharge capacity, defined acceptable exceedance routes and shown that relevant receptors can be protected.

The difficulty here is that some of the matters left to Requirement 11 are not merely matters of detailed engineering refinement. They concern the existence and adequacy of the solution itself.

For Site 1 and Site 5, the Applicant must demonstrate before consent that sufficient land is available within the authorised envelope for the required attenuation, pollution-control and emergency-containment infrastructure. It must also demonstrate that the selected discharge

routes are environmentally acceptable, that exceedance flows will not be redirected towards private properties or sensitive watercourses, and that the drainage system is compatible with the local groundwater setting.

The interaction with private water supplies is particularly important. A later drainage design cannot retrospectively establish a missing baseline. If the location, construction, abstraction depth and hydraulic setting of nearby PWS receptors are not adequately known now, a later drainage plan cannot reliably demonstrate that they will be protected.

The same applies to containment failure. Requirement 11 may secure final drainage details, but it does not itself answer what the consequences would be if the membrane, penstock, pump, containment structure or storage system fails. Those are environmental-effect questions which should inform the EIA and not be left solely to post-consent engineering approval.

Nor does a requirement automatically resolve cumulative flow. Each major compound may be designed to restrict discharge to a greenfield or agreed rate, but the combined timing and routing of multiple discharges within the same catchment still requires assessment. This is especially relevant in a Scheme extending across several hydrological catchments and downstream communities already subject to flood-management interventions. Norfolk County Council has repeatedly emphasised that downstream flood effects must be considered at catchment scale.

The correct distinction is therefore:

Securing detailed design later is not a substitute for providing sufficient present evidence to establish that a workable, sufficiently sized and environmentally acceptable drainage solution exists within the assessed development envelope.

BEPS submits that Requirement 11 can properly secure refinement of a demonstrated solution. It should not be used to defer the evidence necessary to establish the feasibility and environmental acceptability of that solution in the first place.

ExQ1 now places this distinction squarely before the Examination by seeking further explanation of infiltration and drainage design. The relevant answer cannot simply be that Requirement 11 will secure a later drainage scheme. The present evidence must first establish that at least one technically and environmentally acceptable drainage solution is available for each material infrastructure location within the authorised envelope.

9.10 BESS/Substation Firewater and Major Pollution Incidents

9.10 Firewater risk has not been demonstrated to be acceptably controlled

The management of BESS and substation firewater requires separate consideration from ordinary surface-water drainage because the nature of the event, the potential contaminant load and the consequences of containment failure are materially different.

The Applicant now proposes a more developed firewater strategy than was available at PEIR stage. That is acknowledged. However, the Environment Agency's earlier concerns were highly specific,

and the final application must be tested against them rather than merely against the existence of a drainage concept.

The relevant risk pathway is straightforward. A fire or thermal event may require substantial volumes of suppression or cooling water. That water may become contaminated by materials released from the BESS or electrical equipment. It then enters the compound drainage system and potentially the granular sub-base or attenuation system. The proposed system relies upon isolation, storage, testing and subsequent removal or controlled disposal. If any stage of that chain fails, contaminated water may discharge to surface water or infiltrate towards groundwater.

That sequence makes firewater a compound environmental risk: it involves the major-accident scenario, the drainage system, groundwater protection, surface-water quality, private water supplies and potentially WFD compliance.

9.10.1 Hazard pathway

The appropriate way to assess the risk is as a source-pathway-receptor chain.

The source is contaminated fire suppression or cooling water generated during a BESS or substation incident. The immediate pathway is overland flow and the compound drainage system. From there, contaminated water may enter lined attenuation features, granular sub-base, drains or storage tanks. The Applicant proposes automated shut-off or penstock arrangements so that contaminated flows can be isolated rather than discharged. Once isolated, water would be tested and, where necessary, removed from site by tanker.

The environmental receptors include the underlying Principal Aquifer, nearby private water supplies, ordinary watercourses, WFD surface-water bodies and downstream ecological receptors.

This pathway was anticipated by the Environment Agency from the outset. It expressly required the Surface Water Drainage Strategy to demonstrate that contaminated firewater could be contained on site so that there would be no discharge to groundwater or surface water, and that the storage system retained sufficient headroom even during intense rainfall. It also required automatic containment backed up in the event of power failure.

The significance of that advice is that the EA was not content with a generic statement that the site would be drained in accordance with SuDS principles. It required a specific emergency-containment case.

9.10.2 The Applicant's proposed firewater design

The final FRA now provides a quantified design basis for the BESS firewater system.

The Applicant adopts a fire-suppression flow rate of 1,900 litres per minute over a four-hour period. That produces a minimum firewater volume of 456 m^3. The FRA indicates that this volume would be held within dedicated or available storage and that two firewater storage tanks are proposed for supply purposes.

The drainage concept also includes impermeable lining beneath relevant BESS drainage features, automatic or remotely operable penstock/shut-off arrangements, and a procedure under which isolated water would be tested and, if contaminated, removed by tanker rather than discharged directly to the receiving environment.

These are relevant improvements over the PEIR position. They respond in part to the EA's requirement for impermeable containment and isolation.

However, they do not by themselves demonstrate that the full emergency scenario has been resolved. The 456 m^3 figure represents the assumed suppression-water volume. It does not necessarily represent the total volume that the drainage system must retain during a combined fire and rainfall event, nor does it by itself demonstrate that contaminated water retained in the drainage sub-base can be fully recovered without leaving a secondary contamination source.

The FRA also relies upon additional storage within aggregate sub-bases and drainage infrastructure. This requires particular scrutiny because, once contaminated firewater enters granular material, the issue is not merely whether the water is prevented from discharging immediately. Contaminants may sorb to or remain within the material. The subsequent remediation strategy therefore matters.

The Applicant's own design recognises this risk to some extent by providing lined systems and isolation. The question for the ExA is whether the application sufficiently explains what happens to all contaminated materials after an event.

9.10.3 Environment Agency concerns remain directly relevant

The Environment Agency's position has consistently been that BESS and substation runoff must be treated as a groundwater and surface-water pollution issue.

At scoping stage, the EA identified several risks missing from the Applicant's assessment, including spills and leaks of chemicals, fuels and oils throughout all project phases, HDD losses, heat from buried high-voltage cables, and pollutants generated by fires at BESS or substation sites.

More specifically, the EA required potentially contaminated runoff from the BESS and substations to be isolated and removed. It required an impermeable layer beneath those compounds, sufficient capacity to contain the expected firewater even in intense rainfall, automatic containment, and backup in the event of power failure.

At statutory consultation stage, the EA also expressed concern that adequate operational measures had not yet been demonstrated for monitoring and responding to pollutants from leaks and spills and for controlling firefighting runoff from substations. The significance of this is that the EA did not treat BESS firewater as the only issue. Transformer and substation incidents also require a defined containment strategy.

That broader point is important because the final FRA gives the BESS the most developed firewater treatment, while the equivalent emergency-drainage case for all substations is less fully developed. The environmental risk is not confined to batteries. Transformers and associated

electrical infrastructure also contain potentially polluting substances, and the LLFA expressly identified the absence of adequate information concerning fire suppression and drainage at substations.

9.10.4 Norfolk County Council also identified firewater as an unresolved drainage issue

The LLFA's concern is materially aligned with the EA's.

NCC stated that initial information had been provided about BESS fire suppression but that there was no equivalent information concerning the substations, despite their transformers and other infrastructure having specific fire-control and drainage requirements. It therefore required further information.

It later repeated that there had only been tentative discussion of firewater management, that this appeared to relate only to the BESS, and that there was no discussion of how transformer fire suppression would interact with surface-water management. It required clarification to ensure there would be no increase in flood risk or pollution to watercourses and waterbodies.

That is directly relevant to the Applicant's examination response. Pointing to Requirement 11 and future detailed drainage design does not answer whether the EIA has assessed a credible worst-case firewater event for each major substation compound.

The concern is also cumulative. Site 1 contains multiple major electrical installations in close proximity. A drainage strategy must therefore define whether each system is hydraulically independent, how emergency isolation would operate between compounds, and whether the total emergency storage remains adequate where more than one drainage system is affected.

9.10.5 HFCL identifies continuing uncertainty in the Site 1 firewater case

HFCL's independent review reinforces the statutory-consultee concerns.

HFCL identifies insufficient information concerning the interaction between surface-water flooding and firewater management at Site 1. It also questions whether the available description of BESS construction and configuration is sufficiently developed to demonstrate how the embedded mitigation would operate during a credible incident.

This is important because the effectiveness of firewater containment depends upon physical configuration. The number and arrangement of battery units, compartmentation, drainage catchments, road gradients, kerbs or bunds, sub-base construction, and isolation points all affect how water moves during an emergency.

HFCL also raises concern about whether proposed containment measures have been demonstrated rather than simply assumed. In particular, the report treats the firewater issue as one of the headline deficiencies contributing to its broader conclusion that the water-environment assessment does not yet provide sufficient confidence that the relevant effects are understood and capable of mitigation.

That independent conclusion should carry particular weight because it sits between the EA's original design requirements and the Applicant's later assertion that detailed design can be secured after consent. The question is not whether a future detailed drainage scheme could potentially solve the issue, but whether the current Environmental Statement demonstrates that the proposed embedded mitigation is effective within the authorised design envelope.

9.10.6 Credible failure scenarios remain insufficiently addressed

A robust assessment of BESS and substation firewater should consider not only the normal operation of the designed containment system but also credible failure and concurrent-event scenarios.

The first is the combined fire-and-rainfall scenario. The EA expressly required storage to retain sufficient headroom during intense rainfall. The application therefore needs to demonstrate the total volume requiring containment where the suppression-water event coincides with the relevant design storm, rather than treating 456 m^3 as a stand-alone volume.

The second is failure of automatic isolation. If the penstock or automated shut-off does not operate because of mechanical failure, loss of power, damage during the incident or control-system failure, the assessment should show the backup mechanism and the time available before contaminated water reaches the outfall. The EA specifically required automatic containment with a backup system in the event of power failure.

The third is contamination of the aggregate sub-base. If contaminated firewater enters gravel or other porous structural material, it may remain as a secondary source after the standing water has been removed. The application should therefore specify how contaminated sub-base material would be identified, excavated, characterised, stored and disposed of and how underlying liners would be inspected for damage.

The fourth is liner failure. A statement that a membrane will be impermeable is not equivalent to demonstrating long-term integrity. The assessment should address construction quality assurance, penetrations, joints, damage during maintenance or replacement, inspection frequency and detection of leakage beneath or around the liner.

The fifth is delayed tankering. The strategy assumes that contaminated water can be removed from site by tanker. The application should establish how long the system can safely store that water if a tanker is not immediately available, whether emergency access remains possible during the event, and whether contaminated water can be retained without overtopping or bypass.

The sixth is receptor consequence. The assessment should identify what happens if containment is lost: which ditch, watercourse or groundwater unit receives the release; whether any private water supply is hydraulically connected; the likely direction and timing of contaminant migration; and what emergency monitoring and alternative water-supply arrangements would be triggered.

Those questions do not presuppose that failure will occur. They are the questions required to determine the consequence of a low-probability but potentially high-impact event in a sensitive water environment.

BEPS therefore submits that the present evidence shows an outline containment strategy but not yet a fully demonstrated emergency-pollution case for the BESS, National Grid Substation and 400kV substations.

BEPS does not suggest that every theoretical simultaneous failure must be designed for. The assessment should identify a credible reasonable worst case, explain which failures or coincident conditions have been assumed, and demonstrate that the resulting contaminated volume can be isolated without uncontrolled discharge to surface water or groundwater.

9.11 Water Resources and Project Deliverability

9.11 No Secured Water-Supply Solution

The water-resources issue is separate from, but closely connected to, the pollution and drainage issues addressed above. The Scheme requires water during construction, operation, maintenance, replacement and decommissioning. That demand arises in a region formally recognised as seriously water stressed, where the statutory water company is already subject to abstraction-licence reductions and constraints intended to prevent deterioration of waterbodies.

The Planning Inspectorate therefore refused to allow water resources to be scoped out. The EA and Anglian Water both made clear at scoping stage that the availability, source and environmental consequences of water supply had to be assessed. Anglian Water specifically stated that the region is seriously water stressed, that its own licences are subject to reductions, and that the Applicant's Water Resources Assessment would need to set out daily demand for each project stage and distinguish domestic from non-domestic use. The EA likewise noted the risk of lack of water availability and required consideration of dust suppression, HDD mixing water, machinery washing and other consumptive uses.

The final Water Resources Assessment is therefore an important application document. It provides substantially more information than was available at scoping. However, its conclusion depends heavily upon imported water, storage and rainwater harvesting rather than a secured conventional supply. HFCL considers the resulting water-balance case insufficiently transparent and identifies unresolved questions over both the source of water and the arithmetic used.

9.11.1 Seriously water-stressed baseline

The water-resource context is unusually constrained.

Anglian Water's scoping response records that the Anglian Water region is classified by the Environment Agency as ‘seriously water stressed’. It also explains that Anglian Water's groundwater licences are subject to reductions intended to manage the risk of WFD deterioration and that the company's Water Resources Management Plan recognises difficulties in meeting some new non-domestic demand until strategic new supplies become available.

This is not merely background context. It explains why PINS refused to scope water resources out and why a generic proposition that water can be brought to site by tanker is insufficient. Tankering

changes the transport mechanism; it does not create a water resource. The underlying water must still come from a lawful, environmentally sustainable source.

Anglian Water also advised that where non-domestic demand exceeds 20 m^3/day, a Water Resources Assessment would be required and should address temporary construction compounds as well as permanent BESS and substation demand. The Applicant's own demand figures exceed that threshold in each major phase considered in the WRA.

9.11.2 The Applicant's stated water demand is material

The final Water Resources Assessment quantifies daily potable and non-potable demand for the main phases of the Scheme.

The Applicant's stated totals are approximately 31.13 m^3/day during construction, 36.92 m^3/day during operation and 25.43 m^3/day during decommissioning. These are not trivial quantities in the context of a seriously water-stressed region.

The operational figure is especially important because it demonstrates that water demand is not confined to a temporary construction peak. The Scheme will continue to require water during its operational life for activities including welfare, cleaning, landscaping or habitat establishment and maintenance requirements as applicable.

In addition, the FRA identifies a separate minimum fire-suppression provision of 456 m^3 for the BESS emergency-water strategy. That is not necessarily a daily consumptive demand, but it represents a further volume which must be sourced initially, stored and potentially replenished after use or testing.

The combined picture is therefore one of continuing reliance on water over the Scheme's lifetime, not a short-term construction-only demand.

9.11.3 Conventional supply options are substantially constrained

The WRA considers a number of possible supply routes but narrows them considerably.

A new groundwater abstraction is not presented as a straightforward solution. The EA has already identified the catchment constraints and the risk of derogation to existing licensed and unlicensed water users, including private supplies. In a Principal Aquifer environment with chalk streams and multiple PWS receptors, a new abstraction would require a much more detailed licensing and hydrogeological case.

Surface-water abstraction is likewise constrained. Hands-off-flow conditions and ecological requirements limit the circumstances in which water can lawfully be taken, especially during low-flow periods when construction dust suppression or ecological establishment demand may be greatest.

The WRA also does not present an agreed Anglian Water mains solution as the principal supply route. Anglian Water had already warned that it might not be able to supply all new non-domestic

demand until new strategic resources are developed. The Applicant therefore relies increasingly on rainwater harvesting, storage and imported/tankered water.

That progression is important. It means that the Scheme has not demonstrated a conventional, site-connected water supply with known capacity. Instead it relies upon a flexible combination of mitigation measures and off-site supply arrangements whose source and availability remain to be finalised.

9.11.4 Tankering is a delivery mechanism, not a secured water source

The Applicant treats tankering as a preferred or principal embedded mitigation route where on-site or mains supply cannot meet demand.

The difficulty is that 'tankering' describes only how water arrives at the Scheme. It does not identify where the water originates, whether that source is licensed and sustainable, whether it is available during drought, whether competing users have priority, or whether the volume can be delivered for the required duration.

This is the point made by HFCL. The report notes that the Applicant relies upon imported water from outside the immediate Scheme catchments but does not identify the source. HFCL considers that omission material because a source outside the Scheme area may still lie within the same wider water-stressed region and may therefore affect other abstractors or environmental receptors.

That concern is consistent with Anglian Water's own advice. Its scoping response says the flows required to fill storage tanks must be assessed so that the company can determine whether a supply is feasible without jeopardising domestic supply or imposing significant financial or environmental cost.

The relevant evidential question is therefore not whether commercial tankers exist. It is whether a lawful, sustainable source capable of meeting the Applicant's quantified demand has been identified and shown to be available under foreseeable drought and operational conditions. At present, the WRA does not demonstrate that.

This matters for deliverability as well as environmental assessment. If the Scheme's mitigation, construction activities or ecological commitments depend on water which cannot be secured at the required volume, then the effectiveness of those measures cannot simply be assumed.

9.11.5 HFCL identifies a weakness in the treatment of rainwater harvesting

The WRA also relies on rainwater harvesting as an important water-efficiency measure. HFCL identifies a conceptual problem in the way this is treated. The Applicant's water-balance approach appears to assume that harvesting rainfall does not materially alter the catchment water balance because the water is derived from precipitation falling within the Scheme.That assumption is too simple.

Once harvested, water may be removed from the local hydrological cycle through several pathways. Water used for welfare may leave the catchment as foul effluent. Water used for dust suppression, irrigation or vegetation establishment may be lost through evaporation or evapotranspiration rather than returning to groundwater or the same receiving drainage feature. Water used for cleaning may be transported or retained elsewhere. Water stored for long periods may also alter the timing of runoff and recharge.

HFCL therefore considers it inappropriate to treat all harvested rainfall as if it simply returns unchanged to the same hydrological system.

The point is not that rainwater harvesting is environmentally undesirable. On the contrary, it may be a sensible mitigation measure in a water-stressed region. The issue is that its contribution to the Scheme's water balance must be calculated transparently and in a way which recognises consumptive losses and altered timing.That is particularly important where the WRA's conclusion of a balanced supply depends materially upon harvesting.

The same issue also cross-links to habitat establishment. If harvested rainfall is allocated simultaneously to ecological planting, dust suppression and other operational requirements, the assessment must demonstrate that the assumptions are mutually compatible during dry years rather than assuming normal rainfall in a region already subject to water stress.

9.11.6 The water-demand arithmetic is not sufficiently transparent to audit

HFCL also identifies inconsistencies in the numerical presentation of the WRA. These include apparent discrepancies between stated workforce assumptions and the resulting daily water-use figures, and between the stated potable/non-potable proportions and the quantities subsequently used in the water-balance calculations.

That matters because the WRA's overall conclusion depends upon the balance between calculated demand and the yield attributed to the proposed mitigation measures. If the demand assumptions cannot be readily reproduced from the underlying workforce, usage-rate and percentage inputs, the assessment is difficult for the ExA and consultees to audit.

This is not simply a presentational criticism. Small percentage discrepancies can become material when they are carried through a long construction programme or when the residual deficit is said to be met by an unidentified off-site source.

The Applicant should therefore provide a transparent audit trail showing, for each project phase, the number of workers or users, unit consumption rates, potable and non-potable split, activity-specific water demand, assumed harvesting yield, storage losses, consumptive losses, tanker demand and any firewater filling or replenishment requirement.

The same calculation should be stress-tested for drought conditions. A water-resource strategy which balances under average rainfall but fails during the dry conditions most likely to generate dust-suppression and landscape-watering demand is not robust.

For BEPS, the central conclusion is accordingly: the Applicant's claim that the water balance can be achieved is not sufficiently transparent to audit and does not yet demonstrate that a lawful, sustainable and drought-resilient source of water is secured for the Scheme.

This is particularly significant because the issue was identified at the very beginning of the EIA. Anglian Water warned that non-domestic supply could be constrained and that the WRA would need to demonstrate feasibility without jeopardising existing domestic users. The Environment Agency likewise required the Applicant to address water-demand activities and the source of supply in a seriously water-stressed area.

The final WRA provides useful demand estimates and identifies possible mitigation routes, but it does not yet close the underlying question of where the necessary imported water will come from, whether that supply is guaranteed under constrained conditions, and whether the water-balance calculations are sufficiently robust to support the environmental conclusions relied upon elsewhere in the application.

9.12 Groundwater-Dependent Terrestrial Ecosystems

9.12 GWDTEs have not been adequately identified or assessed

Groundwater-Dependent Terrestrial Ecosystems (‘GWDTEs’) require separate consideration because their ecological condition depends, wholly or in part, upon the quantity, quality, level or movement of groundwater. Effects upon groundwater can therefore become ecological effects even where there is no direct physical encroachment upon the habitat itself. For East Pye Solar, that is particularly important because the Scheme extends over Principal and superficial aquifers, proposes substantial ground disturbance, piling, trenching and drainage infrastructure, and is located within a landscape containing a number of designated sites which are known or potentially groundwater dependent.

The Environment Agency identified this issue at the outset. In its scoping response it expressly disagreed with the Applicant’s proposal to scope out effects upon groundwater and GWDTEs. The EA considered that the material then available contained errors and incomplete information concerning ground conditions, including a failure adequately to recognise groundwater–surface-water connectivity. It warned that an inadequate conceptual understanding created a risk of insufficiently mitigated impacts upon significant and sensitive groundwater resources. More specifically, its comment GWCL8 stated that the Applicant had omitted the Broadland Rivers Chalk & Crag WFD groundwater body and discussion of GWDTEs from the water-quality baseline, with the consequence that ‘the sensitivity of groundwater bodies and groundwater dependent sensitive ecological sites are not sufficiently characterised’. The EA required the Applicant to assess the current designation and sensitivity of WFD groundwater bodies and any GWDTEs within the study area.

The final Environmental Statement has responded to that concern to a limited extent. ES Chapter 9 now acknowledges that GWDTEs exist and cross-refers to Chapter 8 Ecology and Biodiversity for ecological designated sites, including GWDTEs [APP-045 §9.5.15]. Table 9.4 identifies a number of such receptors as High sensitivity, including Fritton Common, Pulham Market Big Wood, Tindall Wood Ditchingham and Forncett Meadows, together with other designated sites. Chapter 9 also

expressly records that the Broadland Rivers Chalk & Crag WFD groundwater body underlying the Order Limits is currently at Poor status because of the 'Quantitative Groundwater Dependent Terrestrial Ecology test' [APP-045 §9.6.19]. That is an important baseline fact. It demonstrates that groundwater-dependent ecology is not merely a hypothetical sensitivity around the Scheme: it is already one of the reasons why the underlying groundwater body fails overall status.

However, identification of some GWDTEs in a receptor table is not the same as assessment of their hydrogeological dependence or their connectivity with the Scheme. HFCL's independent review finds that this substantive step has not been completed. Its baseline review identifies Flordon Common, Forncett Meadows, Aslacton Parish Land, Pulham Market Big Wood, Fritton Common and Tindall Wood Ditchingham as GWDTEs sensitive to changes in groundwater level and quality [HFCL §2.5.2, p.11]. HFCL then records that the Environment Agency has identified GWDTEs within SSSIs which have not been identified by the Applicant [HFCL §3.1.3.2, p.13]. Its assessment finding is more fundamental:

'No assessment of the potential linkage(s) between the scheme and GWDTEs has been provided by the Applicant. GWDTEs are not fully assessed and the hydrogeological conceptual model has not been properly characterised in this regard.'[HFCL §3.1.4.2, p.15]

HFCL carries this finding into its summary of deficiencies. Item 9 of Table 4.1 states that the Applicant 'has not identified all GWDTEs within the study area', that no assessment is presented of possible connectivity between the Scheme and those GWDTEs, and that impacts upon these sensitive receptors have consequently been omitted from the EIA. HFCL identifies this as requiring further information and refers specifically to groundwater and GWDTE assessment guidance [HFCL Table 4.1, item 9, p.20].

The Environment Agency's Relevant Representation confirms that the receptor schedule itself remained incomplete or inconsistent at application stage. At EA-027, the EA identified omissions and deficiencies in the treatment of designated sites, including the need properly to highlight Fritton Common and Pulham Market Big Wood as GWDTEs. At EA-052, the EA identified the further methodological error that GWDTEs are completely absent from Chapter 9 Table 9.3, which sets out the sensitivity criteria applied to identified receptors, even though GWDTEs subsequently appear in Table 9.4 as High-sensitivity receptors. The EA also considered that Fritton Grange Meadows should be assessed as a potential GWDTE. [EXAM/8.7, EA-027 and EA-052]

The Applicant acknowledges at EA-052 that GWDTEs are missing from Table 9.3. Its answer is that they have nevertheless been identified as receptors and that the omission 'does not alter the assessment of effects'; it therefore does not propose to update the chapter. [EXAM/8.7, EA-052] BEPS does not consider that response resolves the issue. The EA's concern is not confined to a typographical omission from a table. HFCL's subsequent independent review identifies the more substantive deficiency: the Applicant has not demonstrated the hydrogeological linkages between the Scheme and the GWDTEs in the first place.

That distinction is critical. To assess a GWDTE it is necessary to understand, among other matters, whether the habitat is dependent upon shallow groundwater, deeper aquifer discharge, spring flow or groundwater-fed surface water; the groundwater level regime upon which the habitat depends; the direction from which groundwater reaches the receptor; the extent to which recharge within the Scheme contributes to that regime; and whether Scheme activities could alter groundwater

quality, quantity or flow. None of those questions is answered by assigning a receptor the generic label ‘High sensitivity’.

The deficiency becomes clearer when Chapter 9’s effect assessment is examined. Table 9.7 groups ‘aquifers, Groundwater Dependent Terrestrial Ecosystems (GWDTEs) and bedrock/superficial deposits’ together as a single hydrogeological receptor category ranging from Medium to Very High sensitivity. It then assigns Negligible magnitude and Minor, Not Significant effects to changes in groundwater recharge, contaminants and cable-related thermal effects. [APP-045 Table 9.7] That approach aggregates receptors whose physical responses may be materially different. A large groundwater body and a local groundwater-dependent wetland cannot necessarily be treated as responding in the same way to the same change in recharge.

The specific treatment of cable heat illustrates the problem. Chapter 9 acknowledges at §9.8.58 that cable thermal dynamics have potential to affect GWDTEs. However, §9.8.59 then relies on the fact that cables beneath surveyed main rivers will be at least 5 m below the bed and that thermal effects are limited to the immediate vicinity of the cables. From that, §§9.8.60–9.8.61 conclude a Negligible magnitude and Minor, Not Significant effect. The assessment does not identify which GWDTEs could be affected by particular cable sections, their distance or hydraulic relationship to those cables, the groundwater flow regime supplying them, or whether shallow groundwater pathways elsewhere in the cable network differ from conditions beneath the surveyed main rivers. The reasoning therefore does not constitute a receptor-specific GWDTE assessment.

The same issue arises with changes in groundwater recharge. Chapter 9 accepts that operation can alter recharge because of impermeable areas at the BESS, National Grid Substation and Project Substations, but concludes that the impact is negligible principally because the infrastructure occupies a small area relative to the Order Limits [APP-045 §§9.8.54–9.8.57]. That comparison does not answer whether an individual groundwater-dependent habitat relies upon recharge from a particular local contributing area. The relevant hydrogeological question is not the proportion of the entire Order Limits made impermeable; it is whether the affected area forms a material part of the groundwater catchment supplying the receptor.

This is directly related to the conceptual-model deficiency addressed at §9.3 of this Written Representation. HFCL finds that the Applicant does not provide a defined hydrogeological conceptual model for the Scheme. Without such a model, the Applicant cannot robustly establish the contributing groundwater catchments of GWDTEs or exclude connectivity to development areas. The Environment Agency’s EA-053 response makes the continuing uncertainty particularly clear. In response to the EA’s information on karstic or solution features within the Chalk and their capacity to provide rapid groundwater pathways, the Applicant states that the hydrogeology of the Chalk aquifer will be considered through **post-consent** interpretative assessments, including Foundation Works Risk Assessments, Hydrogeological Risk Assessments and Generic Quantitative Risk Assessments. [EXAM/8.7, EA-053] That confirms that important elements of the hydrogeological understanding relevant to groundwater-dependent receptors remain for later investigation.

BEPS therefore submits that the Applicant has not yet demonstrated that effects upon GWDTEs are negligible or minor. A complete assessment should first establish an agreed and comprehensive schedule of actual and potential GWDTEs within the hydrogeological zone of influence. It should then identify, for each relevant receptor, its degree and mechanism of groundwater dependence,

the geological unit supplying it, groundwater levels and seasonal variability, relevant recharge areas, flow direction and potential Scheme pathways. Only then can construction dewatering, piling, HDD, trenching, drainage, reduced recharge, contamination and cable-heating effects be assessed meaningfully.

This issue also requires cross-reference to BEPS's Ecology and Biodiversity Written Representation. However, the hydrogeological assessment cannot simply be transferred to the ecology chapter. The ecological significance of a GWDTE depends upon ecological evidence, but whether the Scheme is physically connected to it is fundamentally a water-environment and hydrogeological question. That question has not been sufficiently answered.

HFCL's overall conclusion is therefore materially relevant. It identifies GWDTEs among the receptors potentially threatened by derogation or pollution of water resources and concludes that the deficiencies in the ES create a significant lack of confidence that impacts upon the water environment are properly understood or capable of mitigation [HFCL Conclusion, p.23]. BEPS considers that the ExA should require further environmental information on this matter before accepting the Chapter 9 conclusion that no significant adverse water-environment effects arise.

Where the existence or hydraulic dependency of a potential GWDTE remains uncertain, post-consent investigation may refine protection measures but should not be relied upon to establish for the first time whether the authorised works intersect the groundwater system sustaining the receptor.

9.13 Cumulative and In-Combination Effects

9.13 The water assessment is fragmented rather than cumulative

The scale and dispersed form of East Pye Solar make cumulative and in-combination assessment particularly important. The Scheme is not one compact development draining to one outfall and affecting one groundwater body. It consists of multiple solar sites, cable-route corridors, temporary and permanent access tracks, construction compounds, conversion units, substations, a BESS and grid infrastructure spread across several river catchments and connected groundwater systems. The same receptor may therefore experience more than one effect from the Scheme, while individual catchments may receive effects from several different components and phases of development.

The Applicant itself recognised the applicable assessment principle at scoping stage. Its Scoping Report distinguished between inter-project cumulative effects and intra-project or in-combination effects, and cited the requirement under Schedule 4 of the Infrastructure Planning EIA regime to consider the cumulation of environmental effects with other existing and/or approved projects, together with the interaction between environmental factors including population and human health, biodiversity, land, soil and water. It also committed to defining a Zone of Influence for each environmental aspect, establishing a longlist and shortlist of cumulative developments, gathering relevant environmental information and undertaking a proportionate Stage 4 cumulative assessment.

Chapter 9 does contain a section headed ‘Cumulative Effects Assessment’. However, §§9.11.1–9.11.12 do not provide a substantive catchment-by-catchment evaluation of combined water-environment effects. Instead, the assessment relies principally on the proposition that other developments will themselves require FRAs, drainage strategies and management plans containing mitigation ‘similar to that of the Scheme’. From that assumption, Chapter 9 concludes that cumulative effects during construction, operation and decommissioning will be Not Significant [APP-045 §§9.11.5–9.11.12].

BEPS considers that reasoning insufficient for a Scheme of this nature. The fact that two developments each have a drainage strategy does not establish that their combined discharges will have no significant effect on the same receiving catchment. Nor does the fact that each construction project will have a CEMP establish that simultaneous sediment, runoff, water-demand or crossing pressures upon the same receptor are insignificant. Mitigation must be considered, but the cumulative effect first has to be identified.

This concern is directly supported by Norfolk County Council. The LLFA expressly supported inclusion of proposed but as yet unconsented solar and BESS schemes because a large number of similar developments may have comparable programmes and could therefore be constructed at the same time. It stated that those effects should be considered cumulatively ‘rather than in isolation’, specifically emphasising that for flood risk ‘the downstream cumulative impacts can have a much wider impact’.

9.13.1 Intra-project cumulative effects have not been demonstrated at receptor and catchment scale

Chapter 9 states at §9.11.2 that ‘in combination effects’, meaning the combined effect generated by individual Scheme effects upon a particular receptor, are presented in Chapter 19 rather than Chapter 9. That cross-reference may be procedurally convenient, but it does not remove the need for the water assessment to provide a coherent physical basis upon which such combinations can be understood.

The potential interactions within East Pye are substantial. A single catchment may receive runoff from solar arrays, compacted access tracks, temporary compounds, converter stations, substation hardstanding and cable works. The same catchment may contain several watercourse crossings. Groundwater recharge may be altered at the same time as new pollution sources and preferential pathways are introduced. Construction effects may recur during large-scale panel and battery replacement and then again during decommissioning.

These pathways cannot necessarily be understood by assessing each component independently and then assuming that a series of individually Negligible or Low effects remains insignificant when combined.

The Applicant's own Chapter 9 illustrates the fragmentation. It separately assesses spills and sediment mobilisation, temporary changes in runoff, permanent impermeable area, firewater, groundwater recharge and cable heat. It then generally assigns Negligible magnitude to the residual effect after embedded mitigation. What is not apparent from Chapter 9 is a receptor-specific exercise asking, for example, what the combined consequence is for one shallow private

well where construction compaction changes local recharge, trenching changes a shallow flow route, piling creates a vertical pathway and a nearby compound introduces a new contaminant source.

The same issue arises at waterbody scale. Starston Brook receives the hydrological consequences of Site 1 and the BESS catchment as well as cable-route activity. The Tas/Hempnall system interacts with multiple solar sites, cable corridors and crossings. Broome Beck receives drainage through smaller tributaries and field drains from development within its WFD catchment. The physical receptor experiences the combination of those pressures regardless of the ES chapter or assessment heading under which each has been classified.

The temporal dimension is also important. The LLFA notes that the development is not a simple 'build once, operate passively, remove once' scheme. It records planned full solar-panel replacement and repeated BESS replacement during the operational period and questions the need for renewed construction compounds and hardstandings during those replacement phases. The water-environment assessment should therefore consider repeated periods of disturbed soil, construction traffic, temporary drainage and pollution risk over the life of the Scheme, rather than assuming that construction effects occur only during the initial build.

BEPS does not contend that every such combination will necessarily produce a significant adverse effect. The point is that the combined effect must be assessed before that conclusion can be reached. For a Scheme spanning several catchments and involving repeated construction-type activities, a generic statement that management plans will control each individual activity does not demonstrate the cumulative receptor outcome.

9.13.2 Multiple high-sensitivity receptors are exposed to multiple pathways

The need for an integrated assessment is particularly acute where several high-sensitivity receptors occupy the same hydrological setting.

Site 1 provides the clearest example. The BESS, National Grid Substation and Project Substation infrastructure introduces substantial hardstanding, drainage and potential contaminant sources. Figure 16.5 demonstrates a concentration of private water supplies in the surrounding area. The infrastructure lies within the Starston Brook WFD catchment, overlies sensitive aquifer conditions and lies close to public-water-supply Source Protection Zones. The same area is therefore relevant simultaneously to private drinking-water protection, WFD groundwater and surface-water objectives, flood-risk assessment, groundwater pollution, emergency firewater containment and water-resource demand.

Assessing each of those subjects separately risks obscuring the combined receptor consequence. A private water supply does not experience 'the groundwater chapter' separately from 'the drainage chapter'. Its vulnerability depends upon the combined behaviour of the contaminant source, the drainage system, the geology and the abstraction.

Site 5 presents a similar concentration of pathways. Multiple private supplies are located in the vicinity of the 400kV substation area; local drainage is connected towards the Tas system; detailed drainage remains dependent on later design; and downstream receptors include the sensitive

Tas/Hempnall water environment. The combined issue is therefore not merely the substation's impermeable area or the existence of a nearby well. It is whether runoff, pollution, groundwater flow and downstream ecological connectivity have been assessed together.

GWDTEs present the same methodological problem. Chapter 9 recognises groundwater recharge changes and pollution pathways, while Chapter 8 addresses ecology, but HFCL finds no assessment of the hydrogeological connectivity between the Scheme and the relevant GWDTEs. A receptor cannot be assessed cumulatively if the underlying pathway has not first been defined.

Designated sites add a further layer. The FRA itself recognises that a number of designated receptors are hydrologically linked to the Scheme through surface water and groundwater. Once such pathways exist, the combined contribution of sediment, altered flow, recharge change and accidental pollution needs to be evaluated through that connected system.

BEPS therefore submits that the cumulative assessment should identify the principal water receptors and ask, receptor by receptor, which Scheme pathways affect each one during each phase. That would provide a transparent means of determining whether individually limited effects remain limited when superimposed. The present Chapter 9 assessment does not provide that analysis.

9.13.3 Inter-project cumulative effects require actual water interaction to be assessed, not assumed away by reference to other projects' mitigation

BEPS does not suggest that every solar or BESS project proposed anywhere in Norfolk must automatically be included in the Chapter 9 assessment. For water-environment purposes, the appropriate focus is upon developments capable of interacting through a shared hydrological or water-resource pathway.

Relevant interactions may arise where developments drain to the same watercourse or sub-catchment, draw upon or rely on water from the same constrained water-resource system, affect the same groundwater body or abstractions, require simultaneous construction drainage, or introduce multiple crossings and physical modifications within the same water network.

The Applicant's Scoping Report itself proposed a Zone of Influence approach to cumulative assessment and committed to keeping the project list under review. NCC expressly supported the inclusion of proposed but unconsented solar/BESS schemes because similar construction programmes could coincide and downstream flood effects can extend beyond individual development boundaries.

Against that background, Chapter 9 §9.11.5 is problematic. It reasons that cumulative developments 'will all require' an FRA, surface-water drainage strategy and relevant management plans, and that those reports will contain embedded mitigation similar to East Pye. Construction effects are then declared Not Significant because other schemes will use similar best practice [§§9.11.7–9.11.8]. Operational effects are treated in the same way [§§9.11.9–9.11.10].

That is not, in itself, a cumulative impact assessment. It is an assumption about the regulatory controls likely to be imposed upon other developments.

Even if every other project restricts discharge to an individually acceptable rate, the combined timing and volume of several discharges into the same receiving system may still require examination. Even if every project uses sediment-control measures, simultaneous construction may increase the number of potential sediment and pollution sources within one catchment. Even if each individual development imports water rather than abstracting locally, the combined demand upon the same water company or tanker source may be material in a seriously water-stressed region.

The asymmetry within §9.11 is also notable. The Applicant is prepared to identify a cumulative Significant Beneficial effect from the cessation of agricultural fertiliser application across developments [§9.11.10], yet potential adverse cumulative effects are dismissed largely on the assumption that every development will implement suitable mitigation. If cumulative beneficial effects are capable of arising across schemes and catchments, adverse combined pressures require equally transparent analysis.

BEPS therefore considers that the ExA should require a catchment-focused cumulative assessment identifying which shortlisted developments share relevant water receptors with East Pye, their construction periods where known, their drainage and water-demand assumptions, and the combined pathways capable of affecting those receptors. The assessment need not manufacture precision where another project remains at an early stage; uncertainty can be described. What is not sufficient is to infer a Not Significant conclusion solely from the expectation that each other developer will prepare its own management plan.

The LLFA expressly supported consideration of proposed but not yet consented schemes because several major solar and BESS projects may have overlapping programmes and because downstream flood effects can extend considerably beyond individual development boundaries. That is particularly relevant where schemes share receiving catchments or could generate concurrent construction runoff, abstraction demand or drainage interventions.

9.14 The Applicant's Responses Do Not Resolve the Environment Agency Issues

9.14 Response to the Environment Agency Relevant Representation – EXAM/8.7

BEPS has considered the Applicant's response to statutory bodies in EXAM/8.7. The document is useful because it clarifies the Applicant's position on a number of matters raised by the Environment Agency. However, the existence of a written response should not be equated with resolution of the underlying technical issue.

In several important instances, the Applicant acknowledges an error in the submitted ES and proposes a later correction. In others it relies upon future ground investigation, post-consent Foundation Works Risk Assessments, Hydrogeological Risk Assessments, detailed drainage design or future Emergency Response Plans. Elsewhere it maintains its original conclusion of Not Significant without providing materially new receptor-specific evidence.

The appropriate examination question is therefore whether each EA concern has been closed evidentially, not simply whether it has been answered procedurally.

9.14.1 Water resources and tankering

The water-resource issue raised by the Environment Agency is reinforced by the detailed exchange with Anglian Water contained in the same EXAM/8.7 document. It is important to distinguish the sources accurately: the detailed tanker-supply discussion appears under Anglian Water responses AGW-011 to AGW-014 rather than within the numbered EA table. It nevertheless directly concerns the same water-resource constraint identified by the EA and PINS.

Anglian Water records the Applicant's daily demand as 31.13 m^3/day during construction, 36.92 m^3/day during operation and maintenance, and 25.43 m^3/day during decommissioning. It notes expressly that water-resource availability had previously been raised by both Anglian Water and the Environment Agency, particularly in relation to groundwater abstraction [EXAM/8.7, AGW-011].

At AGW-012, Anglian Water notes that approximately 16,872.2 m^3 is stated to be required for construction and that tankering is the principal supply option. Although Anglian Water supports tankering as a delivery approach, it expressly states that the source of water for decommissioning is unclear and points out that tankered water would probably still derive from Anglian Water's supply. It also records its current position of declining new unplanned non-domestic water requests exceeding 20 m^3/day.

The Applicant's response does not identify a secured source. Instead, it confirms that tankering is preferred, acknowledges that climate-change and abstraction-licence pressures are assumed still to exist when decommissioning begins in 2091, and states:

'The Applicant will also explore tankering options outside the AWS region to meet Scheme demand.'[EXAM/8.7, AGW-012]

At AGW-014, the same answer is given for BESS firefighting water: the water will be obtained through tankering and the Applicant will explore options outside the Anglian Water region.

This is evidence that the delivery mechanism has been identified but the underlying water source has not been secured. 'Tankering' answers the question 'how will the water arrive?', not 'from what sustainable resource will it be taken?'

HFCL identifies precisely this distinction. It finds that the water-resource assessment relies upon importing water from outside the Scheme catchments but does not identify its source and concludes that, because wider East Anglia is also water stressed, the source must be established to demonstrate that other water users will not be derogated [HFCL Table 4.1, item 7, p.19].

BEPS therefore considers this matter not closed. The remaining evidence should identify the credible source or sources of imported water; their available capacity; any relevant abstraction or water-company constraints; resilience during drought; the maximum tanker requirement during peak demand; and how availability will be maintained during construction, operation, firewater replenishment and eventual decommissioning.

The answer should also reconcile the arithmetic and water-balance concerns identified by HFCL. The Applicant cannot rely upon 'water neutrality' as a general concept without demonstrating how

much water is actually consumptively lost through foul effluent, evaporation, evapotranspiration and other uses. HFCL identifies both the rainwater-harvesting assumption and the transparency of the underlying calculations as requiring further clarification.

Accordingly, the Applicant's EXAM/8.7 response advances the discussion, but does not demonstrate a secured and environmentally sustainable water source.

9.14.2 Groundwater and private abstractions

The Applicant's response to EA-033 to EA-035 provides particularly strong evidence that important elements of the private-water-supply and groundwater assessment remained imperfect at application stage.

At EA-033, the Environment Agency observes that Chapter 9 Table 9.7 includes water-quantity effects for public and private supplies during construction and decommissioning but omits water-quality impacts from spills and pollutants. The EA identifies the resulting issue as a residual risk of contamination of water supplies and asks for contamination effects to be included.

The Applicant expressly accepts the point and says Table 9.7 'will be corrected… at a later deadline'. It then maintains that public and private water supplies were in fact considered through the assessment and the Outline CEMP and DEMP and that contamination effects are Not Significant. [EXAM/8.7, EA-033]

BEPS considers that answer significant for two reasons. First, it confirms that the submitted residual-effects table did not correctly record a material impact pathway to human drinking-water receptors. Second, the response does not itself provide a receptor-by-receptor contamination assessment. It relies upon the broader ES conclusion and generic embedded mitigation.

EA-034 identifies further baseline errors. The Environment Agency states that the extents of Source Protection Zones are inaccurately described and that §9.6.22 incorrectly says only the northern part of the Order Limits lies within SPZ3. The EA points out that the south-western Order Limits, including key infrastructure comprising the BESS, National Grid Substation and Project Substations, also lie within SPZ3 and are approximately 500 m from SPZ1 of a public water abstraction.

Again, the Applicant acknowledges the error. It says §9.6.22 will be corrected at a later deadline. It also acknowledges that the PWS sensitivity definition can be updated later. [EXAM/8.7, EA-034]

This is not a trivial correction. Source Protection Zones are part of the baseline against which groundwater receptor sensitivity and pollution pathways are assessed. Where the Scheme's principal infrastructure is close to SPZ1 and SPZ2, an inaccurate description of the geographical baseline affects the transparency of the original assessment.

EA-035 then moves from baseline accuracy to actual contaminant pathways. The EA is concerned that potential new pathways from historic contamination to private and licensed abstractions may have been underestimated. It identifies, among other matters, four private water supplies within 250 m of former RAF Seething; trenchless crossings and the Site 10C Project Substation capable of

disturbing ground to a maximum of 12 m below ground level; a recorded minimum Diamicton thickness of 12.2 m in local BGS data; and two potentially active private groundwater supplies or permitted abstractions around 130 m south-west of Site 7A for which Scheme-generated spills and leaks had not been considered. [EXAM/8.7, EA-035]

The Applicant responds that 'credible risks to PWS and permitted abstractions have not been identified' and that its Conceptual Site Model contains no credible contaminant linkages between identified historical sources and the abstractions. However, it simultaneously confirms that the Outline CEMP requires post-consent ground investigation, Foundation Works Risk Assessments for major piled/deep-founded infrastructure, and Hydrogeological Risk Assessments wherever trenchless crossings interact with Principal or Secondary A aquifers or sensitive water/environmental receptors. [EXAM/8.7, EA-035]

There is a fundamental evidential tension in that response. The Applicant relies upon its existing conceptual model to say that no credible risk has been identified, while reserving the investigations and risk assessments necessary to test important aspects of that model until after consent.

HFCL makes that tension more serious. Its independent review concludes that the Applicant does not actually provide or define an adequate hydrogeological conceptual model; that the PWS baseline relies upon assumptions which are not sound; that ground-truthing demonstrates errors in the status of individual supplies; and that additional supplies are probably omitted. Those findings directly weaken the evidential premise of the Applicant's response to EA-035.

The Applicant's post-consent FWRA and Hydrogeological Risk Assessment commitments are useful mitigation safeguards. They are not, however, substitutes for an adequate EIA baseline where the question is whether a pathway to a sensitive drinking-water receptor exists in the first place.

BEPS therefore submits that the remaining evidence should include a complete and verified PWS inventory extending across the actual hydrogeological zone of influence; local-authority data; abstraction depth and source strata; active/inactive status; baseline quality and yield; groundwater flow and connectivity; and a source-pathway-receptor assessment addressing both historic and Scheme-generated contamination.

9.14.3 WFD groundwater and watercourse crossings

The same pattern of deferral arises in relation to the WFD groundwater body and trenchless/deep foundation works.

EA-036 states that risks to the WFD groundwater body from piled or deep foundations and trenchless drilling had not been assessed and that these activities could create new preferential pathways for contamination during construction, operation and decommissioning. The EA asks for the WFD Assessment to account for potential migration through the superficial Diamicton and for Foundation Works Risk Assessments to be informed by local ground investigation to at least the maximum design depth. [EXAM/8.7, EA-036]

The Applicant's response is not that this work has now been completed. It says that the Outline CEMP will be updated at Deadline 1 and that the required Foundation Works Risk Assessments and Hydrogeological Risk Assessments will be informed by **post-consent geotechnical and geoenvironmental ground investigation**. [EXAM/8.7, EA-036]

That distinction is central.

PINS required a WFD assessment at application stage precisely because the nature, location and effect of proposed watercourse and ditch crossings were uncertain. It stated that the approach and findings should be agreed with relevant statutory consultees. The Applicant cannot therefore fully answer the underlying WFD concern simply by committing to investigate the hydrogeology after the DCO has been granted.

The existence of post-consent controls may demonstrate that a risk can potentially be managed once the crossing is designed. It does not necessarily demonstrate at examination stage that every crossing within the authorised envelope can be delivered without WFD deterioration.

This is particularly material where the maximum design scenario permits deep disturbance and where the Lowestoft Formation cannot safely be treated as a uniform impermeable barrier. HFCL's review shows that the superficial geology is heterogeneous and that shallow groundwater and private abstractions occur within the glacial sequence. Consequently, the depth of the crossing relative to local stratigraphy is itself part of the environmental assessment.

A complete answer would identify each environmentally material watercourse crossing; the reasonable worst-case construction method and depth; the geological and groundwater units potentially encountered; the relevant downstream or groundwater receptor; the credible failure pathway, including drilling-fluid breakout; and the mitigation necessary to prevent deterioration. Where local ground conditions are too uncertain to do that, the significance of that uncertainty should be recognised.

The current response converts a material part of that exercise into post-consent risk assessment. BEPS therefore considers the EA's substantive WFD concern not demonstrated to be closed.

9.14.4 BESS and substation pollution and firewater

The EA’s Relevant Representation also demonstrates that firewater and operational pollution were not confined to the BESS.

At EA-020, the EA identifies a lack of clarity over drainage and pollution control at the 132kV and 400kV Project Substations and specifically requests provision for reasonable worst-case firewater plus rainfall, automatic penstock isolation with manual backup, appropriate bunding and removal of contaminated water. It identifies uncontrolled substation firewater as a risk of pollution to the water environment. [EXAM/8.7, EA-020]

The Applicant responds by narrowing the relevant fire-risk source. It states that the only infrastructure within the Project Substations that may present a fire risk is the transformers, that these will be self-bunded, and that contaminated liquid can be suctioned to a bunded tank. It

therefore concludes that the wider Project and National Grid Substation drainage systems do not need to incorporate firewater-management penstocks. [EXAM/8.7, EA-020]

BEPS considers that response requires further examination. The issue identified by the EA is not simply leakage of transformer oil under normal conditions. It is the management of firefighting effluent and contaminated surface water generated during an incident. The Applicant should therefore demonstrate the reasonable worst-case pathway where suppression or cooling water reaches burning or damaged equipment, surrounding surfacing or access areas; where rainfall occurs concurrently; or where the primary transformer bund itself is damaged, overtopped or otherwise compromised.

The same concern appears in EA-023 to EA-025 in relation to the BESS and major-infrastructure drainage. The EA questions the detailed operation of BESS containment, the risk of contaminated water entering granular drainage material and the completeness of impermeable lining. The Applicant relies upon the FRA's lined drainage, penstocks, storage and future detailed OEMP provisions, while Requirement 11 secures approval of detailed drainage before commencement.

The fact that Requirement 11 exists is relevant. It does not establish the environmental consequences of a failure of that system.

EA-026 is similarly revealing. The Environment Agency identifies insufficient detail in the site-specific Emergency Response Plan and asks for downstream groundwater and surface-water abstractors to be notified in the event of an incident affecting controlled waters. The Applicant agrees further detail is required and says the site-specific ERP ‘can only be provided at the detailed design stage’, with future consultation with the EA, local authority and emergency services. [EXAM/8.7, EA-026]

That response is appropriate as to operational emergency planning, but it confirms that important site-specific incident-response arrangements are not yet known. The EIA should therefore separately demonstrate the environmental consequence and containment envelope within which that later ERP will operate.

HFCL's independent review reinforces this issue by identifying insufficient information concerning the interaction of surface-water flooding and firewater at Site 1 and the effectiveness of embedded mitigation. It also identifies the wider conceptual flaw that the Scheme itself — fuels, oils and firewater — has not consistently been treated as the potential source of groundwater contamination.

BEPS therefore considers that the firewater matter should remain an examination issue until the Applicant demonstrates the combined fire-plus-rainfall storage requirement, failure and exceedance routes, liner and penstock resilience, contaminated-sub-base remediation, delayed-tankering scenario and receptor consequences, including consequences for nearby private supplies.

9.14.5 The Statement of Common Ground process should identify what is actually agreed, not substitute for missing evidence

EXAM/8.7 states that the Applicant is seeking a Statement of Common Ground with the Environment Agency. BEPS welcomes that process. It can substantially assist the Examination if it distinguishes clearly between matters agreed, matters agreed subject to a Requirement, matters still under discussion and matters not agreed.

However, the existence of a SoCG process should not itself be treated as evidence that the underlying matters have been resolved.

The eventual EA SoCG should, in BEPS's submission, state explicitly the position on the adequacy of the hydrogeological conceptual model; completeness of the PWS baseline and search area; groundwater and GWDTE assessment; correctness of Source Protection Zone mapping; WFD screening of the groundwater body; adequacy of the watercourse-crossing assessment; the need and timing of FWRA/Hydrogeological Risk Assessments; BESS and substation drainage; firewater containment; and water-resource sourcing.

This is particularly important because EXAM/8.7 contains several acknowledgements that corrections or substantive technical work will occur later. EA-033 and EA-034 produce future corrections to Chapter 9. EA-035 and EA-036 rely upon post-consent ground investigation and risk assessment. EA-053 places important Chalk hydrogeological interpretation into post-consent assessments. EA-026 defers the site-specific ERP to detailed design.

Those matters should not disappear from examination merely because a general statement is made that engagement is continuing.

BEPS therefore requests that the ExA distinguish carefully between a matter that the Environment Agency expressly agrees is environmentally resolved on the present evidence and a matter for which the Applicant has merely proposed a future control mechanism.

The purpose of the Statement of Common Ground process should therefore be to identify clearly which Environment Agency concerns have been resolved, which remain subject to additional evidence or design, and which are proposed to be controlled after consent. A matter should not be treated as substantively resolved merely because discussions continue or because a future Requirement has been identified.

9.15 Response to Norfolk County Council / Lead Local Flood Authority

9.15 The Applicant's response to NCC does not resolve the drainage and flood-risk concerns

BEPS has also reviewed the Applicant's response to Norfolk County Council in EXAM/8.6. That document contains useful clarification and demonstrates that some matters have progressed since the PEIR. However, the underlying pattern is similar to that identified in the Environment Agency responses: a substantial number of the LLFA's concerns are answered by stating that the

current drainage strategy is ‘outline’, that infrastructure locations are not finalised, and that detailed design or investigation will be undertaken after consent under Requirement 11.

The LLFA’s concerns should be understood in context. At statutory consultation stage, NCC stated that the Applicant had underestimated impermeable area, had not investigated site-specific ground conditions or infiltration viability, and had not demonstrated that flood risk, runoff and groundwater-recharge effects could safely be scoped out. It also identified deficiencies in the treatment of construction drainage, access tracks, BESS/substation drainage, firewater and long-term replacement activities.

The question raised by EXAM/8.6 is therefore whether those evidential concerns have now been resolved, or whether they have primarily been transferred to the post-consent design process.

9.15.1 Impermeable area and solar runoff

One of the principal disagreements concerns the amount and nature of impermeable or effectively impermeable development.

The Applicant’s assessment generally distinguishes the solar arrays from conventional buildings on the basis that panels are elevated and rainfall can continue to reach vegetated ground. That proposition may be reasonable for narrow pile-supported arrays where the soil beneath remains well-vegetated, uncompacted and capable of accepting the concentrated runoff.

NCC's concern is that the Scheme contains materially more than the panels themselves.

The LLFA treats new and upgraded access tracks as additional impermeable or effectively impermeable area because the structural materials require substantial compaction. It specifically notes that Type 1 material is not a porous surface and, depending upon age and compaction, may become ‘as smooth and impermeable as concrete’. It raises the same issue for gravelled inverter, transformer and switchgear platforms, where a compacted structural base is required.

The LLFA also points to the Applicant’s retained use of concrete feet in some locations. Those foundations may displace floodwater or alter overland flow where placed within mapped pathways. NCC therefore objected to a drainage analysis based solely upon the more favourable narrow driven-pile scenario where the design envelope retained alternative foundations.

The Applicant has provided clarification in EXAM/8.6 that concrete feet are associated principally with areas requiring archaeological protection rather than tracker panels [NCC-155]. That clarification is useful. It does not, however, quantify the maximum extent and distribution of those concrete foundations or demonstrate their hydrological effect within mapped flow routes.

Similarly, the Applicant continues to rely upon later detailed drainage design for infrastructure whose final locations remain variable.

The issue is therefore not whether every square metre beneath a PV module should be treated as impermeable. BEPS does not advance that proposition. The issue is whether the reasonable worst-

case drainage assessment captures all areas which, because of roofing, foundations, compaction or structural construction, alter infiltration or concentrate runoff.

The LLFA's statutory response expressly disagreed with the Applicant's proposed exclusion of changes in surface-water runoff and groundwater recharge arising from solar panels and infrastructure because it considered the impermeable area underestimated and the site-specific evidence incomplete. The later responses clarify elements of the design but do not yet demonstrate, on a catchment-by-catchment basis, the maximum combined effective impermeable area and resulting runoff.

BEPS therefore considers this matter only partly addressed.

9.15.2 Construction compaction has not been reduced to a quantified catchment effect

Construction compaction is a separate issue from operational PV runoff.

East Pye requires extensive HGV and plant movements, cable corridors, temporary compounds, haul and access routes, laydown areas and working areas. NCC identified from scoping stage that such works could reduce infiltration and increase surface-water runoff for a substantial period. It therefore required construction-phase drainage as well as operational drainage.

The statutory consultation response subsequently observed that no adequate commitment to surface-water management for construction compounds had been demonstrated and that temporary hardstanding and welfare areas could increase impermeable area. It also asked how construction-type facilities would be managed during subsequent full panel replacement and repeated BESS replacement.

The Applicant's responses rely significantly upon the Outline CEMP and subsequent detailed management plans. Those documents are relevant controls, but the underlying hydrological effect remains insufficiently quantified.

A CEMP can prescribe wheel washing, soil handling, temporary drainage, sediment control and restoration. It cannot itself establish how much ground may be compacted concurrently within an individual catchment, what change in runoff coefficient may result, or how that additional runoff interacts with existing downstream flow paths.

That matters particularly in areas identified by the LLFA as contributing to flooding in communities including Saxlingham Nethergate, Hempnall and Woodton. The same authority specifically supported cumulative consideration because downstream flood impacts can be much wider than the development parcel.

The effect also recurs over time. NCC notes that full replacement of panels and repeated replacement of BESS infrastructure may reintroduce construction compounds and heavy vehicle activity during the operational life. If such activities require renewed compaction or temporary drainage, the environmental assessment should acknowledge them as recurring water-environment pressures rather than treating them as a single initial construction episode.

BEPS therefore submits that a phase-specific assessment should identify the reasonable maximum concurrent working area, temporary hardstanding and access requirements in each sensitive catchment, together with the drainage and restoration measures used to prevent increased runoff.

9.15.3 Infiltration testing remains deferred despite being fundamental to the drainage hierarchy

The position on infiltration testing is particularly clear from EXAM/8.6.

At NCC-153, the LLFA states that no site-specific ground investigation or infiltration testing has been undertaken across the extensive Scheme and observes that preliminary testing could have been undertaken at particularly important locations such as the BESS and substations. It cites its developer guidance expectation that a submitted drainage strategy should evidence whether infiltration is or is not feasible.

The Applicant responds that detailed design will be informed by ground investigation but that this investigation will occur post-consent. It relies upon historic boreholes in the vicinity of the Order Limits, which it says indicate groundwater more than 10 m below ground and a significant thickness of Lowestoft Formation clay. On that basis the Applicant says it is ‘conservative to assume’ infiltration drainage will be unlikely to be feasible across most of the Order Limits. Because individual infrastructure locations are not yet finalised, it says testing now could be abortive and therefore proposes post-consent intrusive investigation and infiltration testing. [EXAM/8.6, NCC-153]

That answer does not fully resolve the LLFA's concern.

First, the drainage hierarchy normally requires infiltration to be investigated before moving to a watercourse outfall. The Applicant is effectively relying upon an assumption that infiltration is unsuitable so that a watercourse ‘Plan B’ can form the assessment basis, while simultaneously retaining infiltration as something to be tested later.

Second, HFCL's independent evidence demonstrates that the hydrogeological behaviour of the Lowestoft Formation is more complex than a generic ‘clay therefore impermeable’ assumption. Weathered horizons and sand/gravel lenses may transmit groundwater, and HFCL's limited fieldwork confirms that shallow glacial deposits can support private supplies. That means infiltration suitability is both a drainage question and a groundwater-protection question.

Third, the Applicant's rationale that infrastructure locations are not sufficiently fixed to test them illustrates the wider problem. If locations are too uncertain for representative testing, the ExA needs to understand how the drainage feasibility of the whole authorised envelope has nevertheless been established.

The issue becomes still clearer in NCC-154. The LLFA notes that the FRA assumes infiltration is not feasible without a suitable evidence base and then assumes that substations will discharge through piped outfalls to watercourses. The LLFA states that a viable Plan B requires the actual discharge point to be identified.

The Applicant answers that all substations are intended to have lined drainage with controlled discharge at QBAR to the nearest ordinary watercourse and identifies ordinary watercourses 'in proximity' to the 132kV substations at Sites 4B, 7F and 10C and the 400kV substation at Site 5A. It then says the topographic survey will inform detailed design under Requirement 11. [EXAM/8.6, NCC-154]

A watercourse being 'in proximity' is not the same as a demonstrated viable outfall. Feasibility also depends upon level, route, capacity, land control, receiving-water sensitivity, consents and downstream consequences.

BEPS therefore submits that the infiltration issue remains material. Either infiltration needs to be established as feasible and environmentally acceptable in the relevant locations, or the alternative outfall solution needs to be demonstrated sufficiently to show that it can actually be delivered without adverse flood or water-quality effects.

ExQ1 now reinforces that point by seeking further information on infiltration and drainage. The examination issue is consequently not whether the Applicant must undertake intrusive testing at every possible infrastructure location before consent. It is whether representative evidence is sufficient to demonstrate that the drainage hierarchy has been applied and that a viable alternative discharge solution exists where infiltration proves unsuitable. If neither route has yet been demonstrated, the uncertainty concerns drainage feasibility rather than final detailed design.

9.15.4 Access tracks and watercourse crossings remain dependent upon later design

Access tracks are significant to the drainage assessment for two reasons. First, their compacted construction may generate runoff. Second, where they intersect ordinary watercourses or mapped flow paths, crossings can affect conveyance and local flood storage.

NCC's statutory consultation response explains why it does not accept the characterisation of new and upgraded tracks as inherently permeable. It notes the conflict between structural compaction requirements and permeability and identifies Type 1 construction as potentially becoming effectively impermeable.

The Applicant indicates in EXAM/8.6 that sizing of access-track drainage features and indicative outfalls will be provided later and that detailed design will be secured under Requirement 11 [NCC-151]. That is useful as a commitment but confirms that important information was not contained within the application-stage drainage solution.

Watercourse crossings introduce a further uncertainty. The LLFA has sought details of temporary construction ramps, culverts and other access arrangements and has also raised the consequences of HDD breakout. The Applicant says a breakout contingency procedure will be included in the detailed CEMP and relies upon Requirement 13 to secure that control [EXAM/8.6, NCC-150].

Again, the distinction between control and assessment matters. A future contingency plan is sensible, but the WFD and flood assessments still need to establish which crossings can occur,

what reasonable worst-case method is assessed, and whether culvert or temporary crossing capacities are sufficient for the relevant design flows.

The LLFA's scoping response had already made clear that works affecting river or watercourse flow may require separate approval and that culverting is generally avoided where possible. It required modelling of overland flow routes and at least one feasible surface-water disposal proposal.

BEPS therefore considers that Requirement 11 or separate ordinary-watercourse consent cannot substitute for demonstrating that the crossings and drainage works authorised by the DCO can be accommodated within the environmental envelope assessed.

9.15.5 BESS and substation drainage calculations remain explicitly outline

The LLFA's detailed comments on the BESS drainage calculations are particularly important because they test the engineering model rather than merely the narrative.

In its Relevant Representation, NCC observes that the BESS sub-base was modelled as a very large area of permeable paving approximately 318.5 m by 204 m by 0.57 m deep, served in the model by a single 150 mm pipe. It questions whether this represents an appropriate underdrainage arrangement for a 6.5 ha area, notes that foundations will reduce the volume of sub-base actually available for storage, and identifies an apparent mismatch between the drainage layout and calculation because a Hydrobrake is shown on the drawing but was not incorporated into the modelled information. It reports similar issues in the substation drainage designs. [EXAM/8.6, NCC-162]

The Applicant's response does not demonstrate that the model was already complete. It says that the final infrastructure layout and drainage design have not been finalised, that the drainage strategy is therefore 'outline in nature', and that detailed drainage is secured by Requirement 11. It also acknowledges the omission of Hydrobrake information and stated in EXAM/8.6 that it would provide an update at Deadline 1. BEPS will review any such update against the LLFA's identified modelling deficiencies. [EXAM/8.6, NCC-162]

That is important evidence for the ExA. The LLFA has identified actual modelling assumptions affecting storage and discharge, and the Applicant accepts that relevant design information was omitted and that the drainage model is outline.

At NCC-164, the same point arises in relation to water-quality treatment. The LLFA states that a proper Simple Index assessment cannot be completed because the precise drainage design, discharge location and treatment train for each discrete drainage area have not yet been confirmed. The Applicant expressly responds that the surface-water strategy is 'outline at this stage' and that the Simple Index assessment is 'indicative', to be refined through detailed design under Requirement 11. [EXAM/8.6, NCC-164]

At NCC-165, the Applicant similarly acknowledges that the maintenance schedule is only preliminary and indicative and will also be refined later.

These are not merely BEPS characterisations. They are the Applicant's own descriptions of the present state of the drainage evidence.

BEPS accepts that final pipe diameters and maintenance intervals need not necessarily be fixed at DCO application stage. The difficulty is that the LLFA's comments concern matters which affect whether the system has sufficient capacity, storage and treatment in the first place. If foundation volumes have not been deducted from attenuation storage, or if flow controls shown in drawings are absent from the model, those matters bear directly on the predicted hydraulic performance.

The ExA should therefore distinguish between final detailed design and the evidential minimum required to establish a viable drainage solution.

9.15.6 Firewater interaction with drainage remains only partly answered

The LLFA has consistently raised the interaction between firewater and surface-water management.

At statutory consultation stage, it said there was some initial information concerning BESS fire suppression but no equivalent information concerning the substations, even though substations contain transformers and other equipment with specific fire-control and drainage requirements. It subsequently reiterated that the discussion appeared to concern the BESS only and asked how transformer fire suppression would interact with surface-water management so that neither flood risk nor pollution of watercourses and waterbodies would increase.

The Applicant's response to the Environment Agency now provides greater clarity: transformers will be self-bunded and the Applicant considers that no firewater management or penstock is therefore required within the wider Project Substation drainage system [EXAM/8.7, EA-020].

That is a substantive response, but it leaves an evidential question which should be determined rather than assumed. The Applicant needs to demonstrate whether all credible firefighting or cooling water associated with a transformer fire remains within the dedicated transformer containment system, including during rainfall and emergency-service intervention. If it can demonstrate that no contaminated firewater can reach surrounding hardstanding or the wider drainage system, that may resolve the pathway. If not, the wider drainage design must account for it.

The same issue applies to the BESS drainage design, where the Environment Agency has asked about reasonable worst-case firewater plus rainfall, containment, penstock operation and remediation of contaminated drainage material.

For the LLFA, this is simultaneously a pollution and hydraulic-capacity issue. Firewater occupying attenuation storage during a storm may alter the performance of a system designed primarily for rainfall. It therefore cannot be treated solely as an operational fire-safety matter divorced from drainage.

BEPS submits that this interaction should remain open until the combined event and relevant failure scenarios are demonstrated.

9.15.7 Reliance upon Requirement 11 cannot cure an unproven drainage solution

A recurring feature of EXAM/8.6 is reliance upon DCO Requirement 11. The Applicant invokes it for final drainage design, infiltration testing, watercourse outfalls, access-track drainage, BESS and substation systems, Simple Index treatment assessment and maintenance arrangements.

BEPS does not contend that every drainage detail must be frozen before consent. That would be neither necessary nor proportionate for a development of this scale.

The important distinction is between **refining an environmentally acceptable solution** and **establishing that an environmentally acceptable solution exists**.

In BEPS's submission:

It is legitimate to secure detailed design later where environmental acceptability has already been demonstrated within defined parameters. It is not legitimate to defer evidence required to establish whether an environmentally acceptable solution exists at all.

That distinction is especially important here because the matters deferred include site-specific infiltration evidence, local ground investigation, final outfall locations, treatment trains, some access-track drainage, crossing details, detailed attenuation configuration and maintenance requirements.

The Applicant itself acknowledges at NCC-164 that both the drainage strategy and the Simple Index assessment are presently outline/indicative. At NCC-165 it says the maintenance schedule is indicative. At NCC-153 it says intrusive investigation and infiltration testing will occur post-consent. At NCC-154 it identifies watercourses only 'in proximity' to relevant substations and leaves detailed drainage to later design. At NCC-162 it accepts omitted Hydrobrake information and says the BESS drainage layout has not been finalised.

Those responses demonstrate that Requirement 11 is being asked to do substantial work.

The same issue is heightened by HFCL's evidence. If the underlying hydrogeological conceptual model is itself inadequately defined, post-consent drainage design is not merely selecting dimensions within a known environmental context. It may discover materially different groundwater conditions, shallow aquifer pathways, PWS vulnerabilities or infiltration constraints after the principle and spatial envelope of the development have already been consented.

Nor can the Requirement itself retrospectively provide an EIA assessment of those consequences. A Requirement can prevent commencement until a later plan is approved, but the ExA still requires enough present environmental information to reach a reasoned conclusion upon the likely significant effects of the authorised development.

BEPS therefore considers that the appropriate approach is twofold. First, the Applicant should provide sufficient information during Examination to establish drainage feasibility at the principal infrastructure sites and within sensitive catchments, including representative/site-specific ground evidence, viable outfalls, hydraulic performance, exceedance routes, treatment and emergency-

containment principles. Second, Requirement 11 can then properly secure the detailed engineering refinement of the demonstrated solution.

The LLFA's position throughout the process has been materially consistent: where the evidence is incomplete, a precautionary approach is required; surface-water management must cover all phases; overland flow routes must be assessed; and at least one feasible disposal solution must be demonstrated.

BEPS submits that EXAM/8.6 does not yet demonstrate that all of those underlying concerns have been closed. It demonstrates instead that a substantial proportion of the solution remains dependent upon later investigation and detailed design. That is precisely the distinction which the ExA should test during Examination.

9.16 H Fraser Consulting: Independent Technical Verification of the Deficiencies

9.16 Independent Technical Review

BEPS commissioned H Fraser Consulting Ltd ('HFCL') to undertake an independent specialist review of the ground conditions, hydrology and hydrogeology elements of the Environmental Statement and associated technical appendices submitted in support of the East Pye Solar application. The final report, *Environmental Impact Assessment Review: Ground conditions, hydrology and hydrogeology*, reference 31375Rev01, was issued on 28 September 2026. It was prepared by Gareth Owen and approved by Hannah Fraser.

The stated objective of the HFCL review was to determine whether the environmental impacts of the Scheme upon surface water and groundwater had been appropriately identified by the Applicant and whether adequate mitigation had been incorporated to ensure that impacts upon surface waters and related human and environmental receptors would be reduced to acceptable levels. Its principal focus was ES Chapter 9 Water Environment, Chapter 16 Ground Conditions and the associated technical appendices, with other chapters considered where relevant. HFCL expressly confined its review to its areas of technical specialism in ground conditions, hydrology and hydrogeology and states that its report does not purport to provide legal advice. [HFCL §§1.1–1.2 and report disclaimer]

The review was not confined to a desktop comparison of the Applicant's documents. HFCL also examined the geological, hydrological and hydrogeological setting, obtained private-water-supply information from South Norfolk Council and undertook a site visit to verify a sample of local conditions and private water supplies. HFCL's Figure 2-6 plots the private-water-supply locations obtained from the local authority and those observed during fieldwork; Figure 2-7 brings those locations together with local BGS borehole records. A sample of residences and businesses was visited specifically to verify whether supplies were active and to understand their reliance upon groundwater. [HFCL §2.5.1, pp.7–10]

This independent work is important because HFCL reaches conclusions materially consistent with concerns raised earlier by the Planning Inspectorate, Environment Agency and Norfolk County Council, but does so after examination of the final application-stage Environmental Statement. It is

therefore evidence not merely that consultees asked questions during an earlier stage of project development, but that substantive deficiencies remain apparent in the final assessment.

HFCL summarises its findings in Table 4.1 of the report. That table contains 15 numbered key observations covering EIA methodology, WFD assessment, water resources, private water supplies, GWDTEs, hydrogeological conceptualisation, receptor assessment, firewater, piling and the accuracy and transparency of the underlying baseline. HFCL concludes that the combined effect of those deficiencies creates a 'significant lack of confidence' that impacts upon the water environment are properly understood or can be mitigated. [HFCL Table 4.1, pp.19–22; §5, p.23]

BEPS relies upon that technical conclusion. The significance of the HFCL report is not that every individual criticism would necessarily be determinative in isolation. It is that a qualified specialist review identifies multiple deficiencies affecting the same underlying environmental system, so that uncertainty in one part of the assessment propagates into conclusions elsewhere. An incomplete hydrogeological conceptual model affects private-water-supply assessment; the same uncertainty affects GWDTEs, groundwater WFD assessment, piling risk and pollution pathways. An incomplete drainage design affects flood risk, routine water quality and emergency firewater containment. Uncertainty over water resources affects both deliverability and ecological mitigation. It is the combined effect of those deficiencies which is material to the Examination.

9.16.1 EIA methodology and significance assessment

HFCL's first group of concerns relates to the methodology by which effects have been characterised and assigned significance. These are important because they affect the threshold at which potentially material environmental effects are carried forward and the transparency with which the ExA can interrogate the assessment.

HFCL first identifies an inconsistency between Chapter 9 Water Environment and Chapter 16 Ground Conditions in their definitions of effect and magnitude. Chapter 9 principally addresses hydrology while Chapter 16 principally addresses hydrogeology, yet the two subjects are physically interconnected. HFCL considers that materially different assessment systems make it difficult to follow the same source-pathway-receptor relationship where it passes between the two chapters. Chapter 9 uses four magnitude categories — High, Medium, Low and Negligible — whereas Chapter 16 uses five — Large, Medium, Small, Very Small and Negligible. Water-quality change is also described differently: Chapter 9 uses deterioration between WFD classes, while Chapter 16 refers to Environmental Quality Standards. [HFCL §3.1.1, pp.12–13; Table 4.1, item 1]

HFCL does not suggest that all EIA chapters must employ identical terminology. Different technical disciplines may legitimately use different professional methodologies. Its criticism is that the overlap between hydrology and hydrogeology at East Pye is so extensive that unexplained methodological differences materially hinder interrogation of the assessment. Groundwater pollution arising from a Scheme activity does not become a different physical effect depending on whether it is discussed under Chapter 9 or Chapter 16.

HFCL also questions the way Chapter 9 defines receptor sensitivity. Table 9.3 uses distance from the Scheme boundary as part of the sensitivity classification. HFCL considers this conceptually wrong: sensitivity should describe the intrinsic importance or vulnerability of the receptor, whereas

distance or hydraulic connectivity concerns the likelihood and magnitude of exposure. More importantly, HFCL observes that distance is not necessarily a reliable proxy for hydrogeological connectivity at all. A receptor located further away but hydraulically downgradient within a transmissive aquifer may be more exposed than a closer receptor with little or no hydraulic connection. [HFCL §3.1.1, p.12]

The treatment of private water supplies illustrates the resulting inconsistency. HFCL records that Table 9.3 uses distance bands of less than 50 m for Very High sensitivity, 50–250 m for High, 250–500 m for Medium, 500 m–1 km for Low and beyond 1 km for Negligible. Table 9.4, however, uses less than 1 km as Very High, 1–3 km as High and 3–5 km as Medium. [HFCL §3.1.1, p.12] The inconsistency is not simply numerical. It demonstrates that the Applicant has not applied a coherent rationale for translating distance into receptor sensitivity, notwithstanding the Environment Agency's express warning that effects upon abstractions beyond 250 m cannot necessarily be discounted in transmissive Principal Aquifers.

HFCL's second and third formal findings concern the significance thresholds applied to protected ecological sites and WFD waterbodies. In relation to protected sites, Chapter 9 requires the complete loss of a legally protected wildlife site to constitute a High magnitude effect, whereas Chapter 8 applies a materially more precautionary test concerned with serious damage to key characteristics, integrity or conservation status. HFCL considers the Chapter 9 formulation insufficiently precautionary and inconsistent with the ecological assessment. [HFCL §3.1.1, pp.12–13; Table 4.1, item 2]

Similarly, HFCL criticises the WFD magnitude criteria. It notes that Chapter 9's High magnitude category requires a water-quality deterioration of two WFD status classes. That sits uneasily with the applicable WFD objective of preventing deterioration of status in the first place. The relevant environmental test cannot rationally begin only when deterioration is sufficiently severe to move a waterbody down two classes. HFCL accordingly considers the Chapter 9 methodology insufficiently precautionary in its treatment of waterbodies. [HFCL §3.1.1, p.12; Table 4.1, item 3]

HFCL also questions the Chapter 9 significance matrix itself. It notes that reducing magnitude by only one step, from Medium to Low, can cause significance to fall by two categories, from Major to Minor. It further considers combinations such as Low sensitivity × Low magnitude producing Negligible significance, and Medium × Low producing Minor/Negligible, to be insufficiently precautionary. [HFCL §3.1.1, p.13] This matters because Chapter 9 repeatedly reaches findings of Minor or Not Significant effects by assigning Negligible magnitude to receptors which are acknowledged to have High or Very High sensitivity.

The eleventh formal HFCL finding concerns aggregation. HFCL states that both Chapter 9 and Chapter 16 combine effects across several categories of receptor in such a way that the assessment cannot readily be interrogated receptor by receptor. [HFCL §3.1.4.1, p.15; Table 4.1, item 11] A conclusion expressed collectively for ‘aquifers, GWDTEs and bedrock/superficial deposits’, for example, does not show how each constituent receptor responds to the particular source and pathway. A large regional aquifer, a shallow domestic well and a local groundwater-dependent wetland have materially different sensitivities and exposure mechanisms.

BEPS considers these methodological criticisms important because they affect the reliability of the entire Chapter 9 significance exercise. The ExA should be able to trace, for each important

receptor, the source of impact, pathway, magnitude, embedded mitigation and residual effect. Where the methodology instead merges dissimilar receptors, relies upon distance as a proxy for sensitivity, or applies thresholds which are less precautionary than the underlying WFD or ecological objectives, a conclusion of 'Not Significant' requires closer examination rather than being accepted at face value.

9.16.2 WFD and catchment assessment

HFCL's fourth formal finding concerns the Applicant's WFD screening exercise. It identifies six surface-water WFD catchments and one groundwater body associated with the Scheme. Three surface-water bodies — Broome Beck, the Tas from Head to Tasburgh, and the Chet — are screened out, together with the Broadland Rivers Chalk and Crag groundwater body.

HFCL considers those exclusions inappropriate because development occurs within the relevant catchments and because drainage features within the Scheme connect to the screened-out surface-water bodies. It records that the Scheme contains ditches which connect directly with the relevant downstream waters and notes that construction will entail substantial ground disturbance capable of mobilising silt and pollutants including fuels, oils, foul effluent and contaminants associated with plant and equipment. [HFCL §3.1.2, p.13; §3.2.2, p.17; Table 4.1, item 4]

The significance of this finding is that the Applicant's own assessment accepts the existence of the pathway but nevertheless excludes the downstream receptor from detailed WFD assessment. As addressed earlier in this Written Representation, Broome Beck is a clear example: development occurs within its catchment, field drains and an unnamed tributary occur within or alongside relevant Sites and Cable Route Corridors, and that tributary connects downstream to Broome Beck. Whether a particular cable crossing is trenchless does not remove the wider catchment pathway through which construction sediment, runoff or pollution may reach the classified waterbody.

HFCL makes a related criticism of the groundwater screening. The Broadland Rivers Chalk and Crag groundwater body is screened out in part because the physical footprint of cable trenches and related works is small compared with the approximately 3,076 km^2 area of the whole groundwater body. HFCL considers that the wrong scale of analysis. Its position is that screening should consider whether the Scheme may adversely affect any relevant part of the groundwater body, including groundwater baseflow and locally important groundwater resources, rather than diluting a potentially significant local effect by comparing it with the area of an enormous regional aquifer. [HFCL §3.2.2, p.17]

That criticism acquires particular force in the East Pye context because the groundwater body supports private and public abstractions; the Scheme overlies Principal Aquifers; Source Protection Zones are present; and piling, deep foundations, trenching and HDD can introduce new pathways. A local contamination event affecting an individual private supply is not rendered environmentally negligible because the regional WFD groundwater body is geographically large.

HFCL also criticises the Applicant for insufficiently considering the Scheme itself as a source of contamination. This issue appears both within the WFD/catchment criticism and more specifically in Table 4.1 item 13 concerning piled structures. Construction introduces fuels, oils, suspended

sediment, cementitious materials and drilling products; operation introduces transformers, electrical equipment and BESS/firewater risk. Those sources need to form part of the WFD source-pathway-receptor analysis rather than the assessment concentrating principally upon mobilisation of pre-existing contamination.

BEPS considers HFCL's WFD finding particularly significant because Appendix 9.2 ultimately reaches broad conclusions that the Scheme will not cause deterioration and will not prevent achievement of future WFD objectives. Those conclusions can only be as reliable as the scope of the assessment which precedes them. Where half of the identified surface-water catchments and the only identified WFD groundwater body have been screened out notwithstanding physical development and hydrological connection, a categorical overall conclusion requires further substantiation.

9.16.3 Water resources

HFCL identifies four formal deficiencies concerning the Water Resources Assessment: construction-water demand, the treatment of rainwater harvesting, the unidentified source of imported water and uncertainty in the water-balance arithmetic. These correspond to Table 4.1 items 5, 6, 7 and 15.

The first concern is that the WRA does not adequately account for construction-process water. HFCL accepts that welfare demand is included, but states that the assessment does not adequately account for water required for concrete batching, dust suppression, plant and equipment washing and other construction processes. [HFCL §3.1.2, p.13; §3.2.3, p.17; Table 4.1, item 5] This is material because East Pye will involve extensive construction across a large rural site, and dust-suppression demand may be greatest during dry weather when regional water-resource conditions are most constrained.

The second concern is the assumption that rainwater harvesting is effectively non-consumptive. HFCL explains that harvested rainfall used by the development will not all return to the same hydrological system. Some will leave as foul effluent, some will be lost through evaporation or evapotranspiration and some may be consumed or exported through other uses. [HFCL §3.1.4.1, pp.15–16; §3.2.3, p.17; Table 4.1, item 6] This is significant not only to the WRA balance but to groundwater recharge, shallow private supplies and ecology. If rainfall which would otherwise infiltrate locally is captured and then partly consumed or removed, the assumption of hydrological neutrality requires justification.

HFCL's third water-resource concern is the reliance upon imported or tankered water without identifying its source. The WRA recognises the constraints on obtaining potable or non-potable water locally and proposes rainwater harvesting and import by road tanker as the principal solutions. HFCL states that no information is provided on the origin of that imported water. Given that much of East Anglia is similarly water stressed, HFCL considers that the source must be identified so that the Scheme does not merely displace its water-resource impact to another stressed catchment or derogate other users. [HFCL §3.1.4.1, pp.15–16; §3.2.3, p.17; Table 4.1, item 7]

This concern has subsequently been reinforced by the Applicant's own examination response. In responding to Anglian Water, the Applicant continues to describe tankering as the preferred solution and states that it will 'explore tankering options outside the AWS region'. That remains an exploration of possible sources rather than evidence of a secured one. The distinction is material: tankering is a transport mechanism, not a water resource.

The fourth concern is transparency of calculation. HFCL identifies apparent discrepancies which make it difficult to reproduce the WRA arithmetic. It notes, for example, that WRA §2.1.8 describes 278 people on site during construction requiring 0.1 m^3 each, which equates to 27.8 m^3/day, whereas §2.1.6 states a total daily demand of 31.13 m^3. HFCL also notes that §2.1.9 describes a non-potable proportion of 40–60%, whereas the stated daily non-potable demand equates to 55.38%; although that figure lies within the stated range, the derivation is not transparently explained. [HFCL §3.2.3, p.17; Table 4.1, item 15]

BEPS does not rely upon these numerical observations to assert that the entire WRA is arithmetically invalid. The more measured and important point is that an assessment whose conclusion depends upon balancing multiple sources of water against demand in a seriously water-stressed region needs to be readily auditable. The ExA should be able to reproduce the construction, operational and decommissioning balances from the stated assumptions and to understand exactly what proportion is expected from rainfall, storage, mains or tanker supply, including under dry-weather conditions.

Taken together, HFCL's water-resource findings support BEPS's submission that the application has identified possible supply mechanisms but has not yet demonstrated a secured, transparent and environmentally sustainable water solution across the full life of the Scheme.

9.16.4 Private water supplies, GWDTEs and the hydrogeological baseline

HFCL's findings concerning private water supplies, groundwater-dependent terrestrial ecosystems and the hydrogeological conceptual model are particularly significant because they concern the baseline against which effects have been assessed.

Table 4.1 item 8 concludes that the PWS baseline relies upon assumptions which are not sound. HFCL identifies three specific problems. The Applicant has not demonstrated a cross-check between PWS records, mains-water-supply records and an address database; it has not undertaken sufficient ground-truthing of supplies; and the general assumption that the Lowestoft Formation glacial till does not support private water supplies is unsound. [HFCL Table 4.1, item 8, pp.19–20]

HFCL's fieldwork provides direct evidence for that conclusion. It obtained private-water-supply grid-reference data from South Norfolk Council and visited a limited sample of properties. It identified an active groundwater supply at Boyland Hall which the Applicant had assumed to be disused because the former Hall and outbuildings had been demolished. HFCL also verified active groundwater supplies at Elder Farm/The Forge, Park Farm and Willow Farm, including properties for which groundwater was the resident's only water supply. Park Farm was outside the Applicant's 250 m buffer and therefore had not been discussed in the assessment. [HFCL §2.5.1 and Table 2.1, pp.8–10]

HFCL emphasises that its field visit was deliberately limited and intended only to provide a snapshot. Despite that limited sample, it identified an active supply apparently absent from the local-authority list and incorrectly assumed inactive by the Applicant. It therefore concludes that it is 'possible (indeed probable)' that other private water supplies have been omitted. [HFCL §3.1.3.1, p.14]

This is a particularly important evidential finding. It does not merely criticise methodology in the abstract; it shows that the desktop approach has produced at least one incorrect assumption about whether a receptor remains active. If the baseline population of drinking-water receptors is incomplete, confidence in the subsequent conclusion that effects upon that population are negligible or minor is necessarily reduced.

Table 4.1 item 9 concerns GWDTEs. HFCL states that the Applicant has not identified all GWDTEs within the study area and has provided no assessment of possible connectivity between the Scheme and those receptors. As a result, HFCL concludes that impacts upon sensitive groundwater-dependent receptors have been omitted from the EIA. [HFCL §3.1.3.2, p.14; §3.1.4.2, p.16; Table 4.1, item 9] That concern is especially material because Chapter 9 itself records the Broadland Rivers Chalk and Crag groundwater body as failing the quantitative Groundwater Dependent Terrestrial Ecology test.

Table 4.1 item 10 concerns the absence of a conceptual hydrogeological model. HFCL states expressly that the Applicant does not present such a model and therefore relies upon a baseline which has not been fully characterised. [HFCL §3.1.3.5, p.15] It highlights the relationship between the Lowestoft Formation and the underlying Chalk/Crag Principal Aquifer as a particularly important example.

HFCL cites published BGS work indicating that recharge through the till to the Chalk may amount to approximately 4.5–20% of effective rainfall; that overland flow can be limited because the weathered upper till may be relatively permeable; and that hydraulic conductivity of the weathered till can reach approximately 10^-5 m/s in some circumstances. It also notes that the Lowestoft Formation is designated as a Secondary Undifferentiated Aquifer and may contain sand and gravel horizons or lenses. [HFCL §3.1.3.5, p.15] These findings materially undermine any generalised treatment of the till as a continuous impermeable barrier protecting deeper groundwater.

The significance for private supplies is demonstrated elsewhere in the same report. HFCL notes that shallow abstractions from glacial till are not unusual and identifies an internal contradiction in the Applicant's Technical Appendix 16.1: the Applicant generally assumes that Lowestoft Formation does not support PWS abstraction, yet PWS record TM29NW25 is itself described as abstracting from that formation. [HFCL §3.2.4, pp.17–18]

The fourteenth formal finding concerns confusion over aquifer designations and Source Protection Zones. HFCL notes that Chapter 16 Table 16.7 incorrectly characterises the bedrock aquifers as Secondary A, although subsequent parts of the chapter correctly identify them as Principal Aquifers. HFCL also considers Table 16.12 unclear as to whether the relevant SPZs protect groundwater abstraction from superficial deposits or the deeper bedrock. [HFCL §3.1.3.3, p.14; Table 4.1, item 14]

HFCL also records that Chapter 9 failed properly to represent the extent of SPZs and omitted SPZ1 within the study area. It states that the majority of the Scheme lies within SPZ limits, contrary to a Chapter 9 description implying that only the northern part is affected. [HFCL §3.1.3.4, p.14] The Environment Agency has independently raised the same baseline issue, and the Applicant subsequently accepted in EXAM/8.7 that corrections to the SPZ description were required.

These findings are mutually reinforcing. Inaccurate SPZ mapping, an incomplete PWS inventory, unassessed GWDTEs and a missing conceptual groundwater model are not four unrelated editorial issues. They concern the basic identification of groundwater receptors and the pathways between those receptors and the Scheme. BEPS submits that those matters need to be resolved before the Chapter 9 residual-effects conclusions can be relied upon.

9.16.5 Firewater, surface-water flooding and preferential groundwater pathways

HFCL's twelfth and thirteenth formal findings concern two of the Scheme's most consequential pollution mechanisms: emergency firewater at Site 1 and preferential pathways created by piling or deep foundations.

HFCL's review of Appendix 9.1 identifies an unresolved interaction between surface-water flood risk and the emergency containment system at Site 1. It refers specifically to FRA paragraph 9.10.16, which identifies surface-water flood risk within and around the 400kV and National Grid substations at Sub-Site 1B and states that an appropriate solution for upstream exceedance flows will be considered at detailed design stage. [HFCL §3.2.1, p.16]

HFCL considers it ‘critically important’ that surface-water flooding is not managed by the same capacity required for firewater containment where that could cause the containment system to be overwhelmed during a coincident fire and storm event. [HFCL §3.2.1, p.16] This is a sensible worst-case concern because the relevant systems do not operate in isolation simply because the ES assesses fire and rainfall under separate headings.

HFCL also points to FRA §9.11.4, which states that the BESS ‘may’ be split into compartments with separately lined aggregate sub-bases and that this ‘would’ assist isolation, testing and remediation after a fire. HFCL's criticism is that those qualifying terms make it unclear whether compartmentalisation is actually secured mitigation or merely a possible future design option. [HFCL §3.2.1, p.16] That distinction matters because the residual-effect assessment should only rely upon measures whose implementation and effectiveness are sufficiently certain.

Table 4.1 item 12 therefore concludes that insufficient information is available concerning the interaction between surface-water flooding and firewater/runoff management at the Site 1 400kV and National Grid substations and concerning the physical make-up of the BESS relevant to firewater management. HFCL says there is consequently insufficient detail to evaluate the likely effectiveness of the proposed embedded mitigation. [HFCL Table 4.1, item 12, p.21]

The thirteenth formal finding concerns piled structures. Technical Appendix 16.1 recognises that piles can create preferential vertical pathways for contaminant migration, but then assesses the risk largely by reference to whether pre-existing brownfield contamination is present. HFCL

considers that incomplete because it fails to treat the Scheme itself as a contaminant source. [HFCL §3.2.4, pp.17–18]

During construction, sources include fuels and oils; during operation they include BESS firewater and other substances associated with the electrical infrastructure. If piles penetrate the Lowestoft Formation into a more transmissive underlying aquifer, those Scheme-generated substances are relevant to the source-pathway-receptor analysis irrespective of whether the land was previously contaminated.

HFCL summarises the point clearly: the assessment 'focusses solely on the likely presence/absence of brownfield land' and does not assess the potential for the Scheme itself to be the contamination source. [HFCL Table 4.1, item 13, p.21]

BEPS considers these findings especially significant when read together with the Environment Agency's requirement for Foundation Works Risk Assessments and Hydrogeological Risk Assessments. The Applicant's later commitment to undertake those assessments post-consent acknowledges that preferential-pathway risk requires further investigation. HFCL demonstrates why that work matters to the environmental assessment, rather than merely to later construction method statements.

9.16.6 Overall significance of the HFCL review

HFCL concludes that the deficiencies identified in the Applicant's assessment result in a significant lack of confidence that impacts to the water environment are properly understood or can be mitigated. It identifies potentially affected receptors including shallow and deep groundwater, residents dependent upon private groundwater supplies, other groundwater and surface-water users, local watercourses, sensitive aquatic ecosystems and groundwater-dependent terrestrial ecosystems. HFCL also concludes that the Scheme has not satisfactorily demonstrated that its water requirements can be met sustainably.

The significance of the review is evidential. HFCL does not purport to determine the planning balance or the ultimate legal outcome. Its conclusion is that the existing ES contains deficiencies in both the EIA process and the technical work underpinning it, and that these deficiencies prevent confidence in the Applicant's conclusions. On that basis, HFCL identifies a substantial amount of further information which it considers necessary under Regulation 20 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 before a decision is taken on the DCO

BEPS relies upon those technical conclusions. However, for legal precision, BEPS does not adopt the report's references to Regulation 24 of the Infrastructure Planning EIA Regulations or to the 'Water Framework Directive Regulations 2015'. For an accepted DCO application presently under examination, Regulation 20 is the provision governing further information where the Examining Authority considers that the ES should contain further information. Regulation 24 addresses subsequent applications. The current domestic WFD regime is the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.

That correction does not detract from HFCL's technical findings. On the contrary, it allows those findings to be put before the ExA on the correct legal basis. BEPS's submission is that the 15 principal comments or deficiencies identified by HFCL in Table 4.1, reinforced by the statutory-consultee evidence, raise a serious question as to whether the environmental information presently before the Examination is sufficient to enable a reasoned conclusion to be reached on the significant effects of the Scheme upon the water environment.

HFCL's conclusion should not be read as evidence that significant adverse effects have already been proved to occur. Its significance is evidential: the identified deficiencies create a substantial lack of confidence in the Applicant's ability, on the information presently available, to exclude or adequately characterise those effects. That distinction is important. BEPS relies upon the review principally as evidence that the Applicant's conclusions of negligible or non-significant effect are not yet sufficiently robust.

9.17 Consequences for the Examination

9.17 Matters upon which further evidence is required before a sufficiently robust conclusion can be reached

Several of the outstanding matters are questions of environmental knowledge rather than merely detailed engineering. The identity and vulnerability of private-water-supply receptors, the site-wide groundwater conceptualisation, infiltration feasibility, groundwater-dependent habitat connectivity and some contaminant pathways are capable of determining whether an acceptable drainage, foundation or pollution-control solution exists. They therefore need to be distinguished from matters such as final pipe sizing or routine construction sequencing which can properly be refined later.

The significance of the deficiencies identified throughout this Written Representation is that they affect conclusions the ExA and ultimately the Secretary of State must be able to reach on the basis of adequate environmental information. Regulation 21 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the Secretary of State, when deciding whether to grant development consent, to examine the environmental information, reach a reasoned conclusion on the significant environmental effects of the development and integrate that conclusion into the decision.

On the present evidence, BEPS submits that a sufficiently robust conclusion cannot yet be reached that private water supplies will be protected. The Applicant has not demonstrated a complete PWS inventory within the relevant hydrogeological zone of influence; active supplies have been incorrectly assumed inactive; HFCL considers further supplies likely to have been omitted; abstraction horizons and hydraulic connections remain uncertain; and the assessment does not provide receptor-specific contamination, yield or monitoring analysis. The existence of Figure 16.5 does not cure those deficiencies because it is a location plan rather than a source-pathway-receptor risk assessment.

Nor can the ExA presently conclude with sufficient confidence that material groundwater contamination is unlikely. HFCL finds that no adequate conceptual hydrogeological model has been presented; the Lowestoft Formation is treated too simplistically; the underlying Chalk and Crag form Principal Aquifers; SPZ information has required correction; and the Applicant intends to undertake important Foundation Works and Hydrogeological Risk Assessments after consent. The piling assessment has also omitted the Scheme itself as a potential contaminant source.

The same problem affects WFD conclusions. Three surface-water bodies and the groundwater body have been screened out notwithstanding development within their catchments or over the aquifer and notwithstanding connecting water features. The assessment does not provide detailed quantitative contaminant-transport or sediment analysis sufficient to remove all uncertainty. BEPS therefore submits that the present evidence does not yet establish either that deterioration can be excluded or that the Scheme will not impede measures necessary to achieve the applicable future environmental objectives.

The position on GWDTEs is similarly incomplete. The Environment Agency and HFCL identify omitted or inadequately characterised GWDTE receptors, and HFCL finds that no assessment of their hydrogeological connectivity to the Scheme has been provided. Without identifying the groundwater source, recharge area and pathway for each relevant habitat, a conclusion of Negligible or Minor effect is not sufficiently founded.

The drainage and emergency-firewater cases also remain dependent upon assumptions which have not yet been fully demonstrated. The Applicant's own responses describe major elements of BESS and substation drainage as outline or subject to detailed design. HFCL identifies an unresolved interaction between surface-water exceedance and firewater containment at Site 1. The ExA therefore cannot presently assume that a credible combined fire-plus-storm event, containment failure or delayed removal of contaminated water has been fully accommodated.

Likewise, BEPS submits that the evidence does not yet demonstrate that all drainage solutions are feasible within the assessed design envelope or that off-site flood risk will not increase. Site-specific infiltration testing remains deferred; some outfalls are identified by reference only to nearby watercourses; the LLFA has questioned effective impermeable area, access tracks, construction compaction, attenuation assumptions and drainage modelling; and significant surface-water pathways cross a number of Scheme sites and cable corridors.

Finally, the Scheme's water-resource case remains unresolved. The Applicant has quantified substantial demand but has not identified a secured source for the tankered component of that demand. HFCL identifies unaccounted or insufficiently explained construction uses, potential consumptive losses from harvested rainfall and uncertainties in the water-balance arithmetic. In a seriously water-stressed region, the ExA cannot simply equate the availability of tankers with the availability of a sustainable underlying water resource.

The cumulative consequence is that the outstanding issues concern the adequacy of the environmental baseline, the existence of source-pathway-receptor relationships and the feasibility of mitigation. They are not all matters which can safely be characterised as minor details of implementation.

9.18 Further Environmental Information Sought

BEPS submits that the following information should be provided during Examination insofar as it is necessary for the ExA and ultimately the Secretary of State to reach the reasoned environmental conclusion required by the EIA regime.

9.18 Further information should be obtained before conclusions are reached on the water environment

Regulation 20 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 provides the relevant examination-stage mechanism. Where an Examining Authority is examining an application for development consent and is of the view that it is necessary for the Environmental Statement to contain further information, Regulation 20 requires the ExA to state the reasons for that conclusion and suspend consideration pending provision and consultation upon the necessary information. Current Planning Inspectorate guidance expressly confirms that an inadequate ES discovered during Examination may require suspension pending further information under Regulation 20.

BEPS does not suggest that Regulation 20 is automatically engaged merely because an objector or technical consultant seeks more detail. The statutory question is for the ExA. BEPS submits, however, that the deficiencies identified by the statutory consultees and independently verified by HFCL concern information directly relevant to reaching reasoned conclusions on potentially significant water-environment effects and should therefore be resolved during Examination.

9.18.1 Complete private-water-supply baseline and receptor assessment

The Applicant should first provide a complete and auditable private-water-supply inventory for the hydrogeological zone of influence of the Scheme rather than a fixed arbitrary distance. That exercise should reconcile South Norfolk Council's statutory PWS records with Environment Agency abstraction records, BGS borehole data, property-address information, available mains-water connection information and direct landowner or occupier engagement.

Where records are incomplete, inactive status should not be assumed without reasonable verification. HFCL's Boyland Hall finding demonstrates why. The programme should therefore include proportionate field verification of supplies for which status, position or abstraction type remains uncertain.

For each potentially affected active supply, the assessment should identify its verified location, whether it is a well or borehole, construction and depth where available, abstraction horizon or source stratum, use, dependency, and relationship to the Scheme. The assessment should distinguish supplies used as the sole domestic drinking-water source from other uses because the consequence of interruption or contamination differs materially.

A PWS-specific conceptual source-pathway-receptor assessment should then be undertaken. It should identify which Scheme activities could affect each supply during construction, operation, maintenance, replacement and decommissioning, including spills, sediment, groundwater-level

change, dewatering, piling, trenching, HDD, altered recharge, transformer substances and contaminated firewater.

For potentially affected domestic supplies, a baseline monitoring programme should establish water quality, water level or yield and natural/seasonal variation before relevant works commence. The baseline needs to be sufficient to enable later deterioration to be identified and causation investigated. Without that evidence, affected residents and the Applicant alike may face serious difficulty establishing whether a later change is Scheme-related.

9.18.2 Site-wide conceptual hydrogeological model and targeted investigation

The Applicant should provide the conceptual hydrogeological model which HFCL finds absent from the ES. That model should identify the principal and superficial aquifer units; thickness and continuity of Lowestoft Formation deposits; sand and gravel horizons; Chalk and Crag interfaces; groundwater levels and gradients; groundwater flow directions; recharge; groundwater/surface-water interactions; springs or seepages where relevant; abstractions; GWDTEs; SPZs; and natural or anthropogenic preferential pathways.

The conceptual model should not be a single generic diagram assumed to apply uniformly across the entire Scheme. It should distinguish the principal hydrogeological settings associated with Site 1, Site 5, the Tas/Hempnall valley, the Starston Brook catchment, the Broome/Waveney system and material cable-crossing areas.

Targeted ground investigation should then test assumptions which materially determine environmental acceptability. In particular, it should establish the thickness and character of the Lowestoft Formation and more permeable horizons at high-risk infrastructure locations; relevant groundwater levels; the relationship between proposed maximum foundation depths and underlying aquifers; and the feasibility and environmental acceptability of proposed drainage mechanisms.

Seasonal groundwater information is important. A single groundwater level observed during a dry period may not represent the maximum level or the periods during which shallow groundwater and surface-water connectivity are greatest. The Applicant should therefore demonstrate how seasonal variability has been addressed.

9.18.3 Foundation Works, piling and HDD risk

The Applicant should provide sufficient pre-consent assessment to demonstrate that the reasonable worst-case foundation and trenchless-construction parameters can be delivered without unacceptable groundwater effects.

For the BESS, National Grid Substation, 400kV Project Substations and other locations where deep or piled foundations remain possible, the assessment should show the maximum foundation depth, local stratigraphy, groundwater units potentially penetrated and credible contaminant sources. It should assess the possibility of creating preferential vertical pathways from the surface or shallow deposits into deeper Principal Aquifers.

The assessment must include Scheme-generated contamination, not merely historical brownfield sources. Fuels, oils, construction materials, operational transformer fluids and firewater should all be treated as potential sources where relevant.

For HDD and other trenchless works, the Applicant should provide a complete schedule of environmentally material crossings and assess the reasonable worst-case bore depth and method, groundwater units encountered, frac-out or drilling-fluid-release pathways, launch and reception-pit requirements and receiving receptors. Where detailed crossing methodology will still be determined later, the assessed envelope should be sufficiently constrained to show that an acceptable solution exists.

Post-consent Foundation Works Risk Assessments and Hydrogeological Risk Assessments may properly refine the construction solution, but they should not be used to postpone the basic question of whether the maximum authorised foundation or HDD scenario is environmentally acceptable.

9.18.4 Revised WFD assessment and complete watercourse-crossing register

The WFD Assessment should be revised to reconsider Broome Beck, Tas (Head to Tasburgh), Chet and the Broadland Rivers Chalk and Crag groundwater body in light of the actual Scheme activities and connecting water features.

For each screened-out surface-water body, the Applicant should identify drainage pathways from Scheme land to the classified waterbody, describe the relevant pollution and sediment sources and explain why those pathways cannot cause deterioration or impede achievement of WFD objectives. The analysis should not be confined to whether a cable physically crosses the main river channel.

The groundwater body should be assessed at the scale at which local effects can occur. Comparison between the excavation footprint and the total 3,076 km^2 groundwater-body area should not substitute for assessment of local groundwater quality, baseflow or abstraction effects.

A complete crossings register should identify all permanent and temporary crossings of main rivers, ordinary watercourses and material drainage features, together with crossing purpose, construction method, dimensions or maximum design envelope, hydraulic implications and WFD considerations. Where culverts remain possible, their hydromorphological consequences should be specifically addressed.

The revised WFD exercise should separately demonstrate compliance with the no-deterioration objective and with the obligation not to prevent achievement of applicable environmental objectives. Regulation 13 of the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 identifies prevention of deterioration and protection, enhancement and restoration towards the applicable status objectives as distinct elements of the statutory regime.

9.18.5 GWDTE identification and connectivity assessment

The Applicant should produce a complete schedule of actual and potential GWDTEs within the relevant hydrogeological study area, agreed so far as possible with the Environment Agency and Natural England.

For each receptor, the assessment should establish the nature and degree of groundwater dependence; the relevant source aquifer or shallow groundwater unit; groundwater-level regime; recharge area; surface-water interaction; and potential hydraulic connection to the Scheme.

It should then assess changes in recharge, dewatering, trenching, piling, HDD, contamination and cable heat against those receptor-specific pathways. Aggregating GWDTEs with aquifers and geological units in a single residual-effects conclusion does not provide the necessary transparency.

9.18.6 Detailed Site 1 and Site 5 drainage and containment evidence

Site 1 and Site 5 warrant focused evidence because of the concentration of major infrastructure and sensitive receptors.

For Site 1, the Applicant should provide sufficient drainage detail to demonstrate the combined operation of the BESS, National Grid Substation and Project Substation drainage systems, including catchment boundaries, impermeable areas, attenuation volumes, discharge controls, receiving watercourses, exceedance pathways, groundwater protection and interaction with surrounding surface-water flood routes.

The Applicant should clearly establish whether individual compounds are hydraulically separate and how contamination would be prevented from passing between systems. The relationship between ordinary drainage storage and emergency firewater storage should be demonstrated.

For Site 5, the Applicant should provide detailed hydraulic modelling rather than relying principally on indicative attenuation-volume estimates. The assessment should identify the proposed outfall, route, level, capacity, receiving watercourse, downstream pathway and relationship to nearby PWS and the Tas system.

In both cases, the assessment should demonstrate that sufficient land exists within the authorised design envelope to accommodate the required drainage, attenuation, access and emergency-containment infrastructure once actual foundations and equipment footprints are included.

9.18.7 Combined firewater and rainfall assessment

The Applicant should provide a credible combined-event assessment for the BESS and, where applicable, major substations.

That assessment should identify the firewater design event, duration and total volume; coincident rainfall event; available clean and contaminated-water storage; freeboard; automated and manual isolation; overflow and exceedance routes; and the consequences of failure.

The 456 m^3 suppression-water allowance should be reconciled with rainfall storage rather than considered in isolation. The assessment should show whether the same storage volume is relied upon for ordinary stormwater attenuation and emergency contaminated-water containment and, if so, how simultaneous events are accommodated.

The Applicant should also set out how contaminated granular sub-base or drainage media would be identified and remediated; how liner integrity would be assured and monitored; what happens if an automatic penstock fails or power is lost; and how long contaminated water can safely be retained if tankering is delayed.

Most importantly, the receptor consequence of containment failure should be identified. The assessment should state which groundwater unit, PWS or surface-water receptor could receive a release and what immediate monitoring and drinking-water contingency measures would follow.

9.18.8 Infiltration testing, flood modelling and exceedance routes

The Applicant should undertake sufficient infiltration testing and ground investigation at representative principal infrastructure locations to establish the drainage hierarchy on an evidential rather than assumptive basis.

Where infiltration proves unsuitable, a viable alternative outfall should be demonstrated. Identifying the 'nearest ordinary watercourse' does not establish feasibility unless the route, levels, capacity, land requirements, water-quality implications and downstream consequences are understood.

The Applicant should also provide sufficient modelling of mapped overland flow and exceedance routes to demonstrate that compounds, access tracks, foundations and drainage infrastructure will not displace floodwater towards third-party land or downstream settlements.

At Starston Brook, the limitations of available generalised flood mapping should be acknowledged expressly. Where the final design relies upon topographic separation rather than a detailed hydraulic model, the evidence should demonstrate that this is sufficiently conservative for the maximum authorised infrastructure envelope.

9.18.9 Auditable water balance and secured source

The WRA should be revised to provide a transparent phase-by-phase audit of demand. Construction-process uses should be clearly identified, including dust suppression, concrete-related demand where applicable, plant washing and other non-welfare uses.

The contribution from rainwater harvesting should distinguish capture from genuinely non-consumptive return. Losses through foul-water removal, evaporation, evapotranspiration and other consumptive uses should be accounted for so that any reduction in local recharge is transparent.

The Applicant should identify at least one credible and demonstrably available source for the water expected to be imported by tanker. Evidence should address drought resilience and explain why

reliance upon that source would not simply transfer the Scheme's water-resource pressure to another stressed catchment or existing users.

The calculation trail should enable the ExA and consultees to reproduce the stated construction, operational and decommissioning demand figures and the potable/non-potable split.

9.18.10 Revised Chapter 9 significance conclusions

Once the additional baseline and technical information has been provided, Chapter 9 should be revised so that the residual-effect assessment is receptor specific and internally consistent.

PWS, groundwater bodies, GWDTEs, surface-water bodies and designated sites should not be aggregated where they respond differently to the relevant pathway. The Applicant should explain how Chapter 9 and Chapter 16 methodologies relate and demonstrate that no effect has been artificially reduced because it is divided between hydrology and hydrogeology chapters.

The revised assessment should also correct acknowledged inaccuracies concerning SPZs, PWS contamination effects and other matters identified in the Environment Agency response.

BEPS submits that this further information would enable the ExA to distinguish between genuine residual uncertainty capable of being controlled through detailed design and uncertainty which presently prevents a reliable environmental conclusion.

9.19 Minimum DCO Controls if Consent is Nevertheless Recommended

9.19 Requirements must supplement, not substitute for, adequate environmental assessment

BEPS's primary position is that information necessary to establish the environmental acceptability of the Scheme should be provided before the Examination concludes. A DCO Requirement is not a substitute for an adequate EIA baseline or for assessment of a likely significant effect. Current Planning Inspectorate guidance on EIA and the Rochdale Envelope emphasises that flexibility must be assessed on a cautious worst-case basis, that mitigation relied upon must be capable of addressing that worst case, and that uncertainty does not excuse an inadequate project description or insufficient environmental information.

That distinction is particularly important because the Applicant repeatedly relies upon future detailed drainage, Foundation Works Risk Assessments, Hydrogeological Risk Assessments, CEMPs, OEMPs and emergency plans. Those controls may be appropriate for refining a solution once its feasibility has been demonstrated. They cannot retrospectively supply missing environmental information required to understand whether the Scheme can safely be authorised within the proposed envelope.

If the ExA nevertheless concludes that sufficient information exists to recommend consent, BEPS submits that substantially strengthened protective Requirements should be imposed.

9.19.1 Private Water Supply Protection and Monitoring Requirement

A specific PWS protection Requirement should be included rather than relying solely upon generic CEMP provisions.

Before commencement of any relevant part of the authorised development, the undertaker should be required to submit a Private Water Supply Protection and Monitoring Scheme to the relevant planning authority, following consultation with the local authority team responsible for private-water-supply regulation and the Environment Agency.

The scheme should identify all potentially affected supplies within the relevant hydrogeological zone of influence; record verified supply details; establish baseline quality, water levels and/or yield where appropriate; identify source-pathway-receptor relationships; and set monitoring parameters and frequencies proportionate to risk.

The Requirement should contain defined investigation and action triggers. Where monitoring indicates deterioration reasonably capable of being Scheme-related, the Applicant should be obliged to provide an immediate safe alternative potable-water supply pending investigation, at its own cost. Where a permanent Scheme-related effect is established, the Applicant should fund necessary remediation or a permanent replacement supply of equivalent reliability and quality.

The obligation should continue through construction, operation, major replacement works and decommissioning where the pathway remains relevant.

9.19.2 Groundwater Monitoring Requirement

A separate groundwater monitoring scheme should be secured for high-risk infrastructure locations and sensitive receptors.

The monitoring network should be designed from the agreed conceptual hydrogeological model and should include locations capable of detecting contaminant movement between Site 1 and Site 5 infrastructure and relevant downgradient receptors.

Baseline monitoring should precede works sufficiently to characterise seasonal variation. Operational monitoring should include appropriate chemical and physical parameters, and the scheme should contain trigger levels, escalation procedures and reporting to the Environment Agency.

The Requirement should also specify monitoring following a pollution or firewater incident and should not allow monitoring to cease until the relevant regulator is satisfied that no continuing plume or secondary source remains.

9.19.3 Foundation Works and Piling Requirement

No piled or deep-founded element should commence until an appropriate Foundation Works Risk Assessment has been approved for the relevant work area following consultation with the Environment Agency.

That assessment should incorporate site-specific ground investigation, maximum foundation depth, groundwater levels, stratigraphy, potential preferential pathways and both pre-existing and Scheme-generated contaminant sources.

The Requirement should ensure that the detailed solution remains within the environmental envelope assessed during Examination. It should not permit a deeper or materially different foundation arrangement whose environmental consequences were never assessed.

9.19.4 HDD and trenchless crossing Requirement

A specific requirement should govern trenchless crossings of watercourses and sensitive groundwater areas.

The undertaker should be required to provide a crossing-specific method and hydrogeological risk assessment identifying bore depth, drilling fluid, geology, groundwater conditions, frac-out risk, monitoring, spill response, launch/reception arrangements and ecological constraints.

Where works interact with a main river or Principal/Secondary A Aquifer, the Environment Agency should be formally consulted; where ordinary watercourses and local flood-risk functions are affected, the LLFA should likewise be consulted.

Any DCO disapplication of separate ordinary-watercourse controls should not result in a lower level of substantive environmental protection than would otherwise apply.

9.19.5 Surface-water drainage Requirement

Requirement 11 should be sufficiently prescriptive to ensure that detailed drainage is a refinement of the assessed solution rather than an opportunity to devise a materially new system after consent.

It should require the detailed drainage scheme to identify all contributing impermeable and effectively impermeable areas; attenuation and treatment volumes; outfalls; controlled discharge rates; infiltration evidence; surface-water exceedance routes; access-track drainage; construction-phase drainage; inspection and maintenance; and interactions with groundwater and PWS.

For the BESS and major substations, the drainage scheme should incorporate emergency-pollution containment and should demonstrate how ordinary stormwater and contaminated firewater are separated.

Given NCC's statutory LLFA function, the relevant planning authority should be required to consult Norfolk County Council as LLFA before approval as well as the Environment Agency and relevant sewerage/water bodies where appropriate. Consultation should be meaningful: unresolved technical objections should be addressed expressly in the authority's determination rather than merely noted.

9.19.6 BESS and substation firewater Requirement

The DCO should contain a specific enforceable requirement for firewater containment rather than leaving all relevant provisions to general drainage or battery-safety documentation.

The final design should demonstrate containment of the agreed reasonable worst-case suppression/cooling-water volume together with the relevant coincident rainfall event and adequate freeboard. It should specify passive and active isolation, manual backup, operation during power failure, liner design and integrity assurance, contaminated-water sampling, tankering capacity, and remediation of contaminated aggregate or other materials.

No relevant BESS or substation element should become operational until the competent authority is satisfied, following consultation with the Environment Agency and relevant fire and rescue service, that those arrangements are in place.

9.19.7 Pollution Incident and Emergency Response Requirement

The site-specific Emergency Response Plan should contain explicit water-environment provisions.

It should identify downstream and groundwater receptors; emergency shut-off procedures; Environment Agency and local-authority notification; sampling locations; circumstances in which nearby PWS users must be informed; provision of emergency alternative potable water; contaminated-water storage and removal; and post-event investigation and remediation.

The requirement should address not only BESS incidents but significant substation, transformer, fuel and chemical releases capable of affecting controlled waters.

9.19.8 Watercourse Crossing Requirement

No permanent or temporary crossing of a watercourse should be constructed until a crossing-specific design has been approved for the relevant location.

The design should demonstrate hydraulic capacity for the applicable design event including climate change; avoidance or minimisation of culverting; maintenance of ecological and geomorphological function; appropriate erosion and sediment controls; and no unacceptable increase in flood risk upstream or downstream.

A register of all crossings should be maintained so that the cumulative number and type of interventions within each catchment can be understood and controlled.

9.19.9 Water Resources Requirement

If the Scheme remains dependent upon imported water, a water-resource implementation plan should be approved before commencement of the relevant phase.

That plan should demonstrate that the necessary source has been identified, is lawful and available, is resilient to drought and will not materially prejudice existing users or environmental

objectives. Reliance on a future commercial tanker contract without identification of the underlying source should not be sufficient.

The plan should also set priorities for use of harvested water and explain how ecological mitigation, dust suppression, welfare and emergency-water requirements will be maintained during dry periods.

9.19.10 Remedial and stop-work triggers

The effectiveness of all of the above controls depends upon clear consequences when monitoring indicates a problem.

The DCO controls should therefore contain enforceable trigger levels requiring investigation, temporary suspension of relevant works where necessary, provision of alternative water, repair or replacement of containment systems and remediation before activities recommence.

A monitoring condition without defined action on exceedance is incomplete. This is particularly important for private drinking-water supplies, groundwater contamination and watercourse pollution, where allowing works simply to continue while causation is investigated could compound the harm.

BEPS does not suggest that every technical detail of these schemes must appear on the face of the DCO itself. However, the Requirements must specify the outcomes, information, consultation and action mechanisms sufficiently clearly that the environmental conclusions upon which consent depends are enforceable.

9.20 Conclusion

The central problem with the East Pye water-environment assessment is not one isolated missing survey, one uncertain drainage pipe or one technical disagreement over a modelling assumption. The application lacks a sufficiently integrated and adequately verified understanding of the hydrological and hydrogeological system upon which many of its conclusions depend.

The first failure is a **baseline failure**. HFCL concludes that the Applicant has not presented an adequate conceptual hydrogeological model. The relationship between superficial deposits and the underlying Principal Aquifers is insufficiently characterised; the Lowestoft Formation has been treated too simplistically; the PWS inventory is demonstrably incomplete or unreliable in places; active supplies have been incorrectly assumed inactive; GWDTEs are incompletely identified; and Source Protection Zone and aquifer information has required correction. These are matters concerning the identity and physical setting of receptors, not merely the detail of future mitigation.

The second is an **assessment failure**. Three surface-water WFD bodies and the Broadland Rivers Chalk and Crag groundwater body have been screened out despite development within their catchments or over the groundwater body and despite connecting water features. Receptors are aggregated in a way which prevents transparent receptor-by-receptor scrutiny. The significance methodology applied in Chapter 9 is materially less precautionary in some respects than the environmental standards against which the effects are being tested. Private water supplies are

mapped but not subjected to the detailed hydrogeological source-pathway-receptor assessment necessary to understand their actual vulnerability. GWDTE connectivity has not been demonstrated.

The third is a **mitigation and design failure**. The Applicant repeatedly relies upon later detailed drainage, ground investigation, Foundation Works Risk Assessments, Hydrogeological Risk Assessments, CEMPs, OEMPs and emergency planning. Some degree of post-consent detailed design is normal and appropriate. The concern at East Pye is that some of the deferred matters determine whether an acceptable environmental solution exists at all. At Site 1, the interaction between surface-water flooding and contaminated firewater has not yet been fully demonstrated; the BESS configuration relevant to compartmentalised containment remains subject to detailed design; and significant infrastructure is proposed within a sensitive groundwater and PWS setting. At Site 5, drainage and outfall arrangements remain less developed despite nearby private supplies and downstream connection to the sensitive Tas system.

The fourth is a **deliverability failure**. The Scheme requires substantial volumes of water in a seriously water-stressed region. The Applicant identifies tankering as a principal means of meeting residual demand but does not identify a secured underlying source. HFCL also identifies construction demands not transparently incorporated, potentially consumptive losses in the treatment of rainwater harvesting and uncertainties in the water-balance arithmetic. The Applicant has therefore not yet demonstrated that its water requirements can be met sustainably and reliably throughout construction, operation, major replacement activity and decommissioning.

These four failures interact. An uncertain hydrogeological baseline weakens assessment of PWS, GWDTEs, WFD groundwater and preferential pathways. Incomplete pathway assessment weakens conclusions on pollution and firewater. Incomplete drainage and infiltration evidence weakens both flood-risk and water-quality conclusions. Uncertain water availability potentially affects construction, operation and ecological mitigation. The cumulative uncertainty is therefore materially greater than the sum of a series of isolated technical comments.

That conclusion is independently supported by HFCL. Its final report identifies 15 key technical deficiencies and concludes that they create a ‘significant lack of confidence’ that impacts upon the water environment are properly understood or capable of mitigation. The receptors it identifies as potentially at risk include shallow and deep groundwater, residents dependent upon groundwater as their sole water supply, other groundwater and surface-water users, local watercourses, sensitive aquatic ecosystems and groundwater-dependent terrestrial ecosystems. [HFCL Table 4.1, pp.19–22; §5, p.23]

It is also significant that those findings are not isolated from the statutory-consultee evidence. The Environment Agency has raised concerns concerning private abstractions, SPZs, groundwater characterisation, piling and HDD pathways, WFD groundwater, BESS and substation pollution and firewater. Norfolk County Council as LLFA has raised concerns about impermeable area, infiltration, construction compaction, access tracks, drainage modelling, firewater interaction and reliance upon later detailed design. The Applicant's examination responses resolve or clarify some matters but expressly defer others to later correction, post-consent investigation or detailed design.

BEPS therefore submits that the ExA should not treat Chapter 9 as a closed issue merely because the Applicant has produced the expected suite of documents. The question is whether those documents contain sufficient environmental information to enable a reasoned conclusion to be reached. Current Planning Inspectorate guidance states that an ES should contain the information necessary to reach a reasoned conclusion on likely significant environmental effects, should identify technical deficiencies and lack of knowledge, and should use a cautious worst-case approach where flexibility remains.

Where the ExA considers that the Environmental Statement needs further information in order to reach that conclusion, the relevant mechanism is Regulation 20 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. BEPS submits that the further information identified at §9.18 above should be sought before the water-environment assessment is treated as adequate.

If the outstanding deficiencies can be resolved satisfactorily during Examination, the revised environmental conclusions and sufficiently protective DCO Requirements can then be considered on their merits. If material deficiencies remain unresolved to the extent that a reasoned conclusion cannot safely be reached, or the environmental acceptability of the authorised development has not been demonstrated, the Secretary of State would be asked to grant consent notwithstanding unresolved uncertainty concerning drinking-water receptors, Principal Aquifers, WFD waterbodies, GWDTEs, flood risk, major-pollution containment and the sustainable availability of water required by the Scheme.

In those circumstances, BEPS submits that the ExA should recommend that Development Consent is refused.

Chapter 10: Cultural Heritage

10.1 Executive summary and principal objection

East Pye Solar is proposed within a long-settled historic landscape whose heritage significance cannot properly be reduced to a collection of individual listed buildings and isolated viewpoints. The Scheme extends across the South Norfolk and High Suffolk Claylands, an overwhelmingly rural and agricultural landscape characterised by medieval churches, historic farmsteads, timber-framed and vernacular buildings, greens and commons, narrow historic lanes, surviving field patterns and extensive archaeological remains. BEPS's independent Heritage Impact Assessment records that these elements remain strongly interrelated: settlement pattern, landform, field boundaries, churches, farmsteads and vernacular buildings combine to form a predominantly open and largely undeveloped historic landscape with a strong sense of place. Historic England's own Farmstead and Landscape evidence records a high survival of traditional farmsteads and pre-1750 farm buildings in this landscape, whose significance is enhanced by medieval field boundaries, greens, commons and moated sites.

That character is directly relevant to heritage significance. Many of the affected buildings were created for, and historically functioned within, the agricultural landscape that still surrounds them. Their setting is therefore not simply the view immediately outside a window or the presence or absence of direct intervisibility with a solar panel. It includes historic and functional relationships with surrounding farmland, relative isolation, openness, approaches along lanes and footpaths, group relationships between churches, rectories, farmhouses and barns, tranquillity and the ability to experience those assets as part of an agricultural landscape that has in many cases remained substantially undeveloped for centuries. The independent assessment undertaken for BEPS is based on site visits to all ten Sites and to the heritage assets potentially affected, together with historic mapping, the NHLE, Norfolk HER and Historic England GPA3 and Advice Note 12.

The Applicant itself recognises the scale of the heritage resource potentially affected. Its Heritage Statement scopes in one Scheduled Monument, two Grade I listed buildings, two Grade II* listed buildings, 42 Grade II listed buildings and four Conservation Areas. Yet, after that exercise, it concludes that the Scheme will cause heritage harm to only two designated assets: Moulton Farmhouse and Barn Cottages, both said to experience less than substantial harm at the lower end of the scale, with the harm to Barn Cottages ultimately reducing to no harm once planting has matured after approximately 30 years. It concludes that there will be no harm to any other designated or non-designated heritage asset. Chapter 10 then converts those conclusions into a finding of neutral or non-significant residual effect for almost the entire historic environment, with only a minor adverse, non-significant residual effect identified for Moulton Farmhouse.

BEPS does not accept that assessment. David Edleston's independent Heritage Impact Assessment reaches materially different conclusions because it gives greater weight to the actual contribution made by historic agricultural setting. It identifies, amongst other effects, moderate less-than-substantial harm to Moulton Farmhouse rather than harm at the lowest end; moderate

harm to Hill House where the Applicant finds no harm; moderate harm to Barn Cottages rather than lower-end harm; moderate harm to the Grade I Church of St Michael, Grade II* Old Rectory and associated listed barn at Site 4 where the Applicant finds no harm; moderate-to-high less-than-substantial harm to the Grade I Church of St Catherine at Fritton where the Applicant finds no harm; and moderate harm to the Grade II* Oaks Farmhouse where the Applicant again concludes no harm. The same assessment identifies further lower-end harm to additional farmhouses, listed groups and Conservation Areas that the Applicant treats as unharmed.

Edleston's completed assessment demonstrates that this is not a disagreement confined to a handful of receptors. Of the designated heritage assets assessed, he identifies less-than-substantial harm to 36 assets, compared with only two identified by the Applicant. Those 36 comprise 32 listed buildings and four Conservation Areas. They include both Grade I churches assessed, both Grade II buildings carried forward into his assessment, and numerous Grade II farmhouses, barns and vernacular buildings whose significance is materially derived from their surviving rural setting. The scale and consistency of that divergence is evidence of a systematic under-assessment of setting and harm rather than isolated differences of professional opinion.

These differences are not marginal disagreements over terminology. They expose a systematic methodological problem. The Applicant repeatedly relies upon limited direct intervisibility, distance, retention of the nearest field as undeveloped land and future screening to conclude that significance will not be harmed. That approach underweights precisely the attributes of setting that are most characteristic of this landscape: openness, historic association with farmland, isolation, group value, settlement-edge character, movement through the landscape and seasonal changes in visibility. In several places, the proposed mitigation would itself alter those attributes. A new belt of trees may eventually screen a substation or solar array, but where openness and the historic relationship between a farmhouse or church and surrounding agricultural land contribute to significance, the creation of that screening can itself sever the relationship it is supposed to protect. The Applicant's dependence on planting that may take around 15 years, and in the case of Barn Cottages approximately 30 years, to perform the claimed screening function is therefore not evidence of an inherently negligible effect.

The archaeological case is also not complete. Chapter 10 expressly acknowledges that neither geophysical survey nor trial trench evaluation covered the Cable Route Corridor because the route had not been finalised at the time of survey, and that further archaeological investigation is to take place after submission of the DCO application. This is particularly material because the Scheme's own archaeological work has already identified substantial evidence of long-term occupation and activity across the Order Limits. The remaining uncertainty is therefore not occurring in a demonstrably archaeologically sterile landscape.

Historic England's Relevant Representation confirms that these are live examination issues. Historic England does not object to the overall approach to the assessment and recognises that heritage receptors have influenced design. That balanced position should be acknowledged. But it also states expressly that some changes to the settings of designated heritage assets are likely to amount to harm in policy terms and that residual effects are likely to remain after mitigation. It

identifies the CRC methodology and mitigation as an area of concern, confirms that some areas within the Order Limits have not been fully archaeologically evaluated and that previously unknown remains of equivalent value to a designated asset could still be identified, and identifies cumulative effects with Tasway Energy Park and associated BESS developments as a potential concern. Historic England also intends to scrutinise Requirement 12 and the Outline Archaeological Mitigation Strategy.

There is therefore a material disconnect between the certainty expressed in the Applicant's residual-effect conclusion and the evidence before the Examination. Chapter 10 states that there are no significant residual cultural-heritage effects and its cumulative assessment reasons that, because East Pye itself is said not to cause significant effects, there is no potential cumulative harm to designated or non-designated heritage assets. That reasoning is particularly weak where Historic England itself identifies residual heritage harm and cumulative effects as matters requiring further consideration, and where independent expert assessment identifies substantially more harm than the Applicant acknowledges.

10.2 Legal and policy framework

The heritage policy framework does not treat renewable-energy need as displacing the protection of the historic environment. For an energy NSIP, EN-1 and the relevant technology-specific NPSs form the primary policy framework for the Secretary of State's decision. EN-1 requires the effects of development on heritage significance to be understood and weighed according to the importance of the asset and the degree of harm. The critical issue for East Pye is therefore not simply whether the Scheme delivers renewable generation, but whether the Applicant has correctly identified the heritage significance affected, the contribution made by setting and historic landscape, and the extent of the resulting harm.

10.2.1 EN-1, EN-3 and EN-5

EN-1 requires applicants to consider impacts, including cumulative impacts, on the wider historic environment and to provide sufficient information for the extent of effects on heritage significance to be adequately understood. The decision-maker is required to give great weight to the conservation of designated heritage assets, with greater weight attaching to more important assets. Harm arising from development within an asset's setting is therefore not secondary or incidental: it forms part of the heritage balance.

This is particularly important at East Pye because EN-3 expressly recognises that solar development can affect not only the settings of listed buildings and other designated heritage assets but also **Historic Landscape Character**. It also identifies below-ground effects arising from trenching, cabling, foundations, fencing and temporary haul routes. The Applicant itself cites these provisions in its Heritage Statement.

That policy wording is directly engaged by the evidence. David Edleston identifies the South Norfolk Claylands as a long-settled agricultural landscape in which medieval churches, historic farmsteads, commons, greens, lanes, field patterns and vernacular buildings remain functionally

and visually related to the surrounding open countryside. EN-3 therefore requires the Examination to consider the effect of industrialising that wider historic landscape, not merely whether panels are directly visible from the windows of particular listed buildings.

EN-5 is also relevant because East Pye includes substantial electricity-network infrastructure. The Applicant itself acknowledges that EN-5 recognises effects on designated heritage settings from network infrastructure and direct archaeological effects from undergrounding. The new National Grid Substation, Project Substations, grid infrastructure and extensive cable corridors cannot therefore be treated as heritage-neutral adjuncts to the solar arrays.

10.2.2 National Planning Policy Framework

The August 2026 National Planning Policy Framework is now the relevant NPPF. The Energy NPSs remain the primary policy framework for this NSIP, but the current NPPF provides material national policy on the historic environment.

The current framework requires decision-makers to identify and assess the significance of heritage assets potentially affected by development, including the contribution made by their setting, and to give great weight to the conservation of designated heritage assets. Any harm to the significance of a designated heritage asset requires clear and convincing justification. Where harm is less than substantial, that harm must be weighed against the public benefits of the proposal. Greater weight is to be given to the conservation of assets of greater significance.

The policy question is therefore not confined to whether a development is directly visible from a listed building. Setting may contribute to significance through historic, functional, spatial and experiential relationships, including the relationship between churches, farmsteads, lanes, field systems, settlement edges and the wider agricultural landscape. Harm may arise where those relationships are altered even if direct intervisibility is limited.

For East Pye, this is particularly important because the independent heritage assessment identifies harm arising from the transformation of open historic agricultural settings, the introduction of extensive solar infrastructure into historic approaches and relationships between settlements and designated assets, and the use of screening which may itself alter the historic character and legibility of those settings.

10.2.3 Statutory and policy protection of designated heritage

Listed buildings and conservation areas receive strong statutory and national-policy protection. In the DCO context, the decision must be taken under the Planning Act 2008 and the relevant National Policy Statements, together with applicable heritage legislation and material policy. BEPS therefore does not rely upon a simplistic proposition that the ordinary TCPA statutory duties operate unchanged in every respect within the DCO regime.

The substantive heritage principles nevertheless remain highly material. The significance of designated assets, including the contribution made by their settings, must be properly understood; harm requires clear and convincing justification; and heritage harm must be

given appropriate weight in the decision-making balance. For highly graded assets, the importance of conservation is correspondingly greater.

The central issue in this chapter is therefore evidential and evaluative: whether the Applicant has correctly identified the assets affected, properly understood the contribution of their settings, accurately characterised the degree of harm and secured design measures capable of avoiding or reducing that harm.

10.2.4 Historic England GPA3: setting is not a visibility test

Historic England's *Good Practice Advice in Planning Note 3: The Setting of Heritage Assets* is particularly important because it identifies the very factors that the Applicant's assessment tends to underweight. GPA3 states that setting may derive from matters including surrounding landscape character, openness and enclosure, functional relationships, history and degree of change, and the way an asset is experienced.

Historic England made this point expressly in its East Pye scoping response. It warned that assessment of setting **must not be limited to visual receptors** and specifically required consideration of:

- erosion of the historic landscape;
- the way heritage assets are approached or traversed;
- spatial, historical and functional relationships between assets;
- relationships with the wider historic landscape;
- and effects from noise, light and traffic movements.

Historic England further advised that the EIA should define the setting of each affected asset, identify the contribution made by different elements of that setting to significance, and then assess the magnitude of the resulting harm. It also stressed that systematic scoring and matrices cannot provide the answer: setting ultimately requires qualitative and expert judgment.

That advice provides the proper benchmark for Chapter 10. The relevant question is not simply whether direct intervisibility exists between an asset and a solar array. It is whether the Scheme changes an element of setting that contributes to significance. Where a medieval church derives significance from its isolated relationship with surrounding farmland, where a historic farmhouse remains functionally and spatially connected to the fields that historically sustained it, or where a Conservation Area is experienced through its transition from open countryside into historic settlement, loss or industrialisation of that setting may cause heritage harm even where visibility is filtered.

The Applicant's assessment must therefore be tested against this broader, qualitative concept of setting. A methodology that repeatedly moves from 'limited intervisibility' to 'no harm', or relies on future planting to sever views of development without asking what that planting itself does to historic openness and relationships, does not adequately answer the policy test. Historic England's own scoping advice makes clear that the historic landscape is part of the heritage receptor, not merely the space between the receptor and the Scheme.

10.3 The Scheme occupies a surviving historic agricultural landscape, not neutral farmland

10.3.1 South Norfolk and High Suffolk Claylands

The Order Limits extend across the South Norfolk and High Suffolk Claylands, a long-settled landscape whose historic character remains strongly legible. David Edleston's independent Heritage Impact Assessment describes a predominantly open, rural and agricultural landscape of slightly undulating clay plateau, narrow river valleys, dispersed farmsteads, medieval churches, greens, commons, historic lanes and surviving field patterns. The landscape is not simply agricultural in current use; agriculture, settlement and built heritage are historically interdependent components of the same cultural landscape.

Edleston records that approximately 90% of the land within the National Character Area remains in agricultural use and that the landscape retains substantial elements of earlier enclosure, medieval or earlier lanes, greens, ditches, moats and field boundaries despite post-war field enlargement. He also relies on Historic England's *Farmstead and Landscape Statement: South Norfolk and High Suffolk Claylands*, which identifies a high survival of traditional farmsteads and, in a national context, a high survival of pre-1750 farmstead buildings. Their significance is specifically enhanced where they survive in association with medieval moated sites, early enclosure, commons, greens and historic field boundaries.

That evidence is material because EN-3 expressly recognises that solar development may affect not only individual designated assets but **Historic Landscape Character**. The heritage receptor is therefore wider than the listed building inventory. The Scheme would insert solar arrays, substations, BESS infrastructure, grid works, fencing, tracks and cable infrastructure into a landscape whose historic character is still expressed through the relationship between buildings, settlement pattern, farmland and routes.

10.3.2 Local landscape character areas

The Scheme crosses several locally distinct landscape character areas, including the Tas Rural River Valley, Tas Tributary Farmland, Chet Tributary Farmland, Thurlton Tributary Farmland with Parkland and Great Moulton Plateau Farmland. Edleston identifies recurring heritage characteristics across those areas: open or framed views across farmland; scattered historic farmsteads; medieval and round-towered churches acting as landmarks; historic parkland and moated sites; greens and commons; traditional brick, timber-framed and thatched buildings; and extensive networks of minor roads and lanes.

These are not incidental landscape qualities. They explain how the historic environment is experienced. Churches such as St Michael at Stratton St Michael and St Catherine at Fritton are not isolated objects viewed against an irrelevant background. Their prominence,

isolation and relationship with surrounding farmland are characteristic of the historic landscape type itself. The same applies to the scattered farmhouses and barns across Great Moulton, Tasburgh, Saxlingham, Brooke, Woodton and Seething.

The Applicant's heritage assessment therefore cannot properly treat the surrounding agricultural land as neutral space once a minimum setback has been achieved. In many locations, that land is the very medium through which heritage significance is appreciated.

10.3.3 Historic farmsteads, churches, greens and settlement pattern

The surviving pattern of historic settlement is central to the heritage value of this landscape. Edleston identifies nucleated villages, dispersed hamlets, isolated farmsteads, moated sites and settlements grouped around greens and commons. Traditional farmhouses and barns remain embedded within the agricultural land from which their historic function arose, while medieval churches frequently retain a deliberately isolated or semi-isolated relationship with the communities and fields they served.

This is particularly evident at Moulton Farmhouse, Hill House, Barn Cottages, Oaks Farmhouse, Upgate Green Farmhouse, Oldhouse Farmhouse and the Site 4 group at Stratton St Michael. In each case Edleston identifies open agricultural land not merely as a view but as an historically meaningful component of setting. At Moulton Farmhouse, for example, the surviving relationship between the farmhouse, outbuildings and surrounding agricultural land remains legible through historic mapping and present-day experience. At Oaks Farmhouse, the building remains in an isolated rural position surrounded by land that has remained substantially undeveloped for centuries.

The same principle applies to churches and Conservation Areas. St Catherine's isolated position outside the main body of Fritton is part of its historic character and significance; Saxlingham Green Conservation Area derives part of its character from the transition between open countryside and historic settlement; and Fritton retains a distinctly rural form in which buildings, common land and surrounding farmland remain interrelated.

10.3.4 The agricultural landscape is itself part of heritage setting

The central heritage issue is therefore not simply whether the Scheme is visible from a listed building. It is whether development changes an element of setting that contributes to significance.

Historic England's own guidance and its East Pye scoping response make this clear. It told the Applicant that setting must not be limited to visual receptors and must include the erosion of historic landscape, the way assets are approached or traversed, spatial, historical and functional relationships, and the wider landscape within which heritage assets are experienced.

That advice is particularly important here because much of the Scheme would occupy land that continues to perform the historic role against which buildings and settlements are understood. The open agricultural landscape gives meaning to the isolation of churches, the function of farmsteads, the character of settlement edges and the experience of historic lanes and footpaths. Industrialising that land may therefore harm heritage significance even where direct intervisibility is partial, seasonal or filtered.

This is the starting point from which the Applicant's methodology must be judged. If the surrounding agricultural landscape is treated merely as visual foreground or background, the assessment inevitably understates the contribution that setting makes to significance.

10.4 The Applicant's setting methodology systematically understates heritage harm

10.4.1 Setting has been treated too much as a question of intervisibility

The Applicant states that its assessment used desk-based research, viewshed analysis and site visits, supported by heritage-specific visualisations. That approach is not objectionable in itself. The problem is the way it has been used.

The Heritage Statement repeatedly moves from visibility analysis, to site inspection, to a conclusion that an asset can be scoped out or will experience no harm because intervisibility is limited, filtered or absent. The result is that visibility appears to operate as the principal sieve through which heritage significance is considered.

That is inconsistent with the approach Historic England expressly required at scoping stage. Historic England warned that setting assessment must not be restricted to visual receptors and specifically required consideration of historic landscape erosion, approaches to assets, spatial and functional relationships, noise, light, traffic and wider landscape context.

The relevant question is therefore not simply 'can the Scheme be seen?' but 'does the affected land contribute to the asset's significance, and does the Scheme alter that contribution?' The Applicant's methodology too often answers the first question and treats it as determinative of the second.

10.4.2 The scoping-out exercise is too aggressive

The Applicant's Heritage Statement initially considered a very large number of designated assets but ultimately scoped in only 51 designated assets and two non-designated heritage assets. Its Table 1 records repeated examples of assets shown as theoretically visible but then excluded following site inspection.

Examples include Wacton Hall, Moat Farmhouse, Fairstead Lane Farmhouse and numerous other listed buildings and Conservation Areas that were identified within the visibility exercise but scoped out of substantive assessment. The fact that vegetation, bunding or topography reduces a particular view does not necessarily demonstrate that the wider setting makes no contribution to significance.

Edleston's independent assessment illustrates the consequence of that approach. He visited all 51 assets carried forward by the Applicant and also identified additional assets that he considered potentially affected. He expressly brings Holly Cottage at Saxlingham Green and Seething Conservation Area back into the assessment despite the Applicant having scoped them out.

That is significant. It shows that the dispute is not merely over the degree of harm to assets already accepted as sensitive. It extends to the Applicant's prior decision about which assets merit assessment at all.

10.4.3 Historic and functional relationships are underweighted

The weakness is clearest in the treatment of historic farmsteads. The Applicant repeatedly places heavy weight on whether the building itself can be seen from the Scheme or whether panels will be visible from the building. That is too narrow.

A farmhouse may derive significance from its historic relationship with surrounding fields even where direct intervisibility is constrained by hedges or trees. Edleston identifies this repeatedly at Moulton Farmhouse, Hill House, Oaks Farmhouse, Upgate Green Farmhouse, Oldhouse Farmhouse and other rural assets.

The same applies at Stratton St Michael. The Grade I Church of St Michael, Grade II* Old Rectory and Grade II barn form a historic group whose relationship with surrounding open agricultural land remains legible. The Applicant accepts that this rural setting contributes to their significance, but nevertheless concludes that the wider Site 4 land does not make a meaningful contribution once the nearest fields are retained open. Edleston reaches the opposite conclusion and identifies moderate less-than-substantial harm.

The contradiction is important: once the Applicant accepts that rural setting contributes to significance, it must explain why industrialisation of that setting causes no harm. Distance alone does not answer that question.

10.4.4 Seasonal visibility is inadequately represented

The assessment also risks understating harm where summer foliage is relied upon to reduce apparent intervisibility. In this landscape, deciduous hedges and trees materially alter visibility between summer and winter.

Edleston repeatedly records increased winter visibility. His assessment of St Catherine's Church at Fritton is particularly important. The Applicant concludes that there are no views from the church towards Site 5 sufficient to cause harm. Edleston's site evidence records views from the churchyard and access track into the surrounding farmland and specifically demonstrates substantially greater intervisibility during winter months.

That matters because the proposed development is permanent for the operational life of the Scheme and will be experienced year-round. A conclusion of no harm cannot safely be based on summer screening where the worst-case seasonal condition is materially different.

The independent assessment specifically treats seasonal visibility as material. Screening which appears effective in summer may perform materially differently in winter, when deciduous hedgerows and trees are less effective and the geometry of the historic landscape is more apparent. The assessment therefore cautions against relying upon summer fieldwork or Year 15 vegetation as though it represented the heritage experience throughout the year.

10.4.5 Setting is dynamic and cannot be reduced to a preferred viewpoint

Historic England GPA3 recognises that setting is experienced dynamically. Edleston's evidence repeatedly demonstrates this in practice.

Barn Cottages are not experienced from one fixed position. They are seen from numerous points along the winding Station Road, in conjunction with surrounding farmland and, potentially, the BESS and substation. The Applicant places substantial weight on a particular southern view and on intervening cottages, whereas Edleston concludes that movement along the road reveals multiple relationships between the asset and its wider setting.

The same problem arises at Site 4. The Church of St Michael, Old Rectory and barn are experienced from the churchyard, Church Lane, surrounding farmland, public footpaths and the new footbridge associated with the Long Stratton bypass. Edleston identifies panoramic views in which all three buildings are appreciated together with open agricultural land beyond.

A setting assessment that privileges one selected viewpoint risks missing the very relationships that give the asset meaning. The proper assessment must follow how the asset is actually experienced through movement across the landscape.

10.4.6 EIA significance and policy harm have been conflated

A further weakness is the tendency to move from an EIA finding of 'minor', 'neutral' or 'not significant' to a heritage conclusion of 'no harm'.

The two tests are not equivalent.

The Applicant's Chapter 10 uses a matrix combining receptor sensitivity and magnitude of impact and treats Moderate effects or above as significant in EIA terms. That may assist environmental assessment, but it does not determine whether heritage significance is harmed for policy purposes.

Historic England itself warned at scoping stage that systematic scoring systems and matrices cannot provide the answer to setting; qualitative and expert judgment remains essential. The Applicant's own methodology acknowledges the role of professional judgment, yet its conclusions repeatedly collapse very slight or low changes into 'no harm'.

That is particularly problematic where the Applicant accepts that an affected setting contributes to significance. A change may fall below an EIA significance threshold and still constitute less-than-substantial heritage harm requiring proper weight in the planning balance.

This distinction is now reinforced by Historic England's Relevant Representation. Historic England states that changes to the settings of designated assets will in some cases result in significant effects and are likely to equate to heritage harm in policy terms, with residual effects remaining after mitigation.

The Examining Authority should therefore resist any suggestion that 'not significant in EIA terms' means 'no heritage harm'. The statutory and policy question is whether significance is harmed, not whether the Applicant's matrix labels the effect Moderate or above.

10.4.7 The Applicant understates the status of Grade II listed buildings

The Applicant's EIA methodology compounds this problem by categorising Grade II listed buildings as receptors of 'Medium (Regional)' sensitivity. Edleston identifies this as incorrect. Grade II buildings are statutorily listed buildings of national designation: they are buildings of special architectural or historic interest, even though the degree of significance within the national designation varies from asset to asset. Approximately 92% of listed buildings are Grade II. Their numerical prevalence does not convert them into assets of merely regional importance.

This matters because the Scheme area contains an exceptional concentration of Grade II farmhouses, barns, cottages and other vernacular buildings whose historic relationship with the South Norfolk Claylands survives unusually well. An EIA matrix may distinguish relative sensitivity for assessment purposes, but it cannot lawfully or rationally reduce the policy importance attaching to a nationally designated heritage asset. Nor can the 'Medium' label substitute for an asset-specific assessment of significance and vulnerability to change in its setting.

Edleston's conclusions demonstrate the practical consequence. A large proportion of the additional harms he identifies concern Grade II buildings whose significance derives substantially from their historic agricultural setting. The Applicant's generic sensitivity classification therefore reinforces, rather than cures, the tendency of its methodology to understate setting harm.

10.5 The Applicant's own mitigation demonstrates the existence of change

The Applicant repeatedly relies on setbacks, retained open fields and future planting to support conclusions of no harm. Those measures do not demonstrate absence of impact. They demonstrate that the Scheme would materially alter the settings of heritage assets unless substantial design and screening measures are introduced. The correct question is therefore whether those measures avoid harm to significance, not whether they eventually reduce visibility.

10.5.1 Setbacks do not necessarily remove setting harm

The retention of the field immediately adjoining a heritage asset as open land does not mean that the wider setting beyond ceases to contribute to significance. That proposition is particularly weak where the significance of the asset derives from its relationship with a broader agricultural landscape.

At Site 4, the Applicant accepts that the rural setting of the Grade I Church of St Michael contributes to its significance, that the Grade II* Old Rectory has historic and group-value relationships with the church and nearby barn, and that the agricultural setting of the barn reinforces its historic character. Yet it concludes that retaining the southern part of Site 4B as undeveloped land is sufficient to avoid harm from the solar arrays and substation further north. Edleston's field assessment reaches the opposite conclusion. He identifies views from the churchyard, surrounding farmland, footpaths and the new footbridge in which the church, rectory and barn are experienced together with the open landscape beyond, and concludes that the proposed arrays and 132kV substation would form an industrial backdrop within that setting. He assesses moderate less-than-substantial harm to all three assets.

The same issue arises at St Catherine's Church, Fritton. The Applicant relies heavily on the proposed community space and retention of the land immediately north of the Grade I church as free from built solar infrastructure. Edleston's inspection nevertheless identifies views from the churchyard and access track into the wider land beyond, particularly in winter, and notes that PV arrays and the proposed 400kV substation would occupy that wider setting. The preservation of a narrow foreground does not preserve the wider rural isolation from which the church derives significance.

Site 3 provides a further example. The field closest to Townhouse Farmhouse is retained undeveloped, but Edleston concludes that the more distant solar arrays would remain visible as an industrial backdrop across the open agricultural setting and would cause lower-end less-than-substantial harm.

The same principle applies to Fritton Conservation Area. The Applicant relies on distance and retention of the immediate approach, but Edleston identifies the wider agricultural land beyond the Conservation Area as part of its rural setting and concludes that panels and substation infrastructure would alter that setting when leaving or approaching the settlement.

A setback is therefore mitigation of proximity, not proof of no setting harm. Where the wider landscape contributes to significance, industrial development beyond the retained field remains capable of causing harm.

10.5.2 Screening vegetation is not neutral heritage mitigation

The Applicant also relies extensively on new planting to reduce intervisibility. In heritage terms, that mitigation is not neutral.

Where openness itself contributes to significance, screening development by introducing new woodland or dense boundary planting can alter the historic setting just as surely as the development it is intended to conceal. The relevant issue is not simply whether the panels or substation become less visible, but whether the historic visual, spatial and functional relationship between the asset and its surrounding landscape is retained.

Edleston makes this point directly at Moulton Farmhouse. The Applicant accepts lower-end less-than-substantial harm and relies on a linear tree belt along Sub-Site 1B to reduce views once mature. Edleston concludes that the planting would itself sever the historic visual relationship between the farmhouse and its open agricultural surroundings and therefore cannot be treated as an unqualified heritage benefit.

At Hill House, the Applicant similarly relies on proposed hedgerow and tree planting to screen solar arrays located close to the building. Edleston identifies the open farmland around the former workhouse as an important element of its setting and concludes that enclosing that relationship with new screening vegetation would itself be harmful.

The same reasoning applies to Grade II* Oaks Farmhouse. The Applicant accepts that Sub-Site 7L contributes to the farmhouse's significance and relies on planting to screen views after maturity. Edleston concludes that this mitigation would itself sever the relationship between the historically isolated farmhouse and surrounding open land.

The mitigation therefore exposes the weakness in the Applicant's no-harm conclusions. If screening is required because the development would otherwise be appreciable within a heritage setting, the assessment must consider both the harm caused before screening matures and the heritage consequences of permanently changing an open setting into an enclosed one.

The independent assessment reinforces this point. Planting may reduce views of panels while simultaneously altering the very openness, intervisibility and historic relationship which contribute to an asset's significance. Screening a harmful change is not necessarily the same as preserving the historic setting. In some locations, the creation of dense screening where the historic relationship was one of openness may itself constitute an adverse change.

10.5.3 Year-15 and year-30 mitigation cannot erase earlier harm

The timescale of the proposed planting is itself material.

At Moulton Farmhouse, the Applicant relies on planting expected to mature after approximately 15 years. At Hill House, similar screening is relied upon over approximately the same period. At Oaks Farmhouse, the Applicant again refers to planting maturing after around 15 years.

The position at Barn Cottages is more stark. The Applicant accepts that the BESS, noise barrier and Project Substation would introduce another industrial-looking element into the wider landscape setting and states that the proposed woodland screening may take approximately **30 years** to reach sufficient height to obscure the substation. It nevertheless concludes that lower-end less-than-substantial harm would eventually reduce to no harm once screening matures.

A heritage effect persisting for 15 or 30 years is not an immaterial interim effect. It represents a substantial part of the 60-year operational life of the Scheme and a substantial period in the lived experience of the affected heritage assets and communities.

Nor does eventual screening retrospectively remove the earlier harm. The proper assessment must identify the effect during the years before mitigation becomes effective and attribute appropriate weight to that harm. A residual-effect conclusion based primarily on mature Year-15 or Year-30 planting materially understates the actual whole-life effect.

10.5.4 Screening can change historic landscape character

The Applicant's planting strategy also needs to be assessed at landscape scale. EN-3 expressly recognises that solar development may affect **Historic Landscape Character**, not merely the settings of individual listed buildings.

This matters in the South Norfolk Claylands because openness, long views, scattered farmsteads, prominent churches, historic field patterns and the relationship between settlements and agricultural land are defining components of historic landscape character. Edleston identifies those relationships throughout the Scheme area.

Repeated belts of new screening vegetation around arrays, substations and BESS infrastructure may reduce direct visibility of industrial structures, but they may also fragment open views, alter historic field enclosure, change approaches to settlements and obscure historic relationships between buildings and farmland.

Mitigation must therefore be assessed for its own heritage effect. It cannot be assumed that screening is beneficial simply because it reduces visibility. In a landscape where openness itself forms part of heritage significance, the mitigation may replace one form of harm with another.

10.6 Independent expert assessment by David Edleston

BEPS commissioned an independent Heritage Impact Assessment from David Edleston BA(Hons) Dip Arch RIBA IHBC. Mr Edleston is a conservation architect with more than forty years' professional experience and formerly managed South Norfolk Council's Conservation, Design and Landscape Team for approximately eighteen years. His final September 2026 assessment was informed by documentary review and five days of field inspection across the Scheme area.

The independent assessment reaches materially different conclusions from the Applicant's ES.

It does not suggest that the Scheme would generally cause substantial harm to designated heritage assets. The principal disagreement concerns the extent of less-than-substantial harm and the contribution made by historic setting.

The independent assessment identifies less-than-substantial harm from the principal built development to **36 designated heritage assets**. When highway, access and abnormal-load effects are included, adverse effects are identified in relation to **41 designated heritage assets overall**.

The affected assets include highly graded heritage assets, including **two Grade I and three Grade II*** listed buildings. The assessment therefore identifies a substantially broader pattern of heritage harm than the Applicant's ES.

This difference cannot be dismissed as a disagreement about terminology alone. It arises principally from a different understanding of setting. The independent assessment gives greater weight to:

historic and functional relationships between buildings and the surrounding agricultural landscape;

approaches to churches and settlements;

surviving field patterns, lanes and historic settlement morphology;

open rural foregrounds and backgrounds;

seasonal visibility;

sequential experience of assets when travelling through the landscape; and

the effect of screening itself upon openness and historic legibility.

The independent assessment therefore challenges the Applicant's recurring assumption that limited direct visibility, distance or future screening is sufficient to reduce heritage harm to negligible or no effect.

The disagreement is material because the Applicant's final heritage conclusions form part of the planning balance. If the correct position is that dozens of designated assets experience less-than-substantial harm, rather than only the very limited harm identified by the Applicant, the heritage side of that balance changes significantly.

10.7 Site-specific heritage effects

The defects identified above are not abstract methodological concerns. They materially affect the Applicant's conclusions at individual Sites. In a series of cases the Applicant accepts that surrounding agricultural land contributes to the significance of a listed building, or that some intervisibility will occur, but nevertheless concludes that there will be no heritage harm because of

distance, retained foreground land or future planting. David Edleston's independent assessment demonstrates that those conclusions are frequently too optimistic.

10.7.1 Sites 1, 2 and BESS – Great Moulton and Tivetshall

The Applicant identifies Broadgate Way, Moulton Farmhouse, Laurels Farmhouse and its listed barn, Hill House, French's Farmhouse and Barn Cottages as the designated assets potentially sensitive to Sites 1, 2 and the BESS. Its overall conclusion is that embedded landscaping will produce negligible effects and no harm except at Moulton Farmhouse and Barn Cottages, where it accepts less-than-substantial harm at the lower end of the scale. Edleston accepts the Applicant's no-harm conclusions for Broadgate Way and French's Farmhouse, but reaches materially different conclusions for Moulton Farmhouse, the Laurels group, Hill House and Barn Cottages.

Moulton Farmhouse

Moulton Farmhouse, now Woodlands Farm, is a Grade II listed 17th-century timber-framed and thatched farmhouse. Edleston identifies its isolated position, associated outbuildings and open agricultural surroundings as important components of its significance. Historic mapping demonstrates the longevity of that relationship, while present-day views along Frith Way and across surrounding farmland allow the farmhouse to continue to be experienced as part of a traditional rural farmstead.

The Applicant itself accepts that the Scheme will cause less-than-substantial harm at the lower end of the scale. It acknowledges that the PV arrays and Project Substation will be visible west of the farmhouse and that views of the farmhouse from the public footpath through Sub-Site 1B will be largely obscured by the Project Substation.

Edleston considers that assessment materially understates the effect. The Site 1 infrastructure is not limited to distant PV arrays: the historic setting would be affected by solar panels to the west, the National Grid Substation and 400kV Project Substation to the north-west and the BESS and further 400kV infrastructure to the south-west. The proposed linear tree belt may eventually reduce visibility after approximately 15 years, but it would itself sever the historic visual relationship between the farmhouse and the surrounding open land. He therefore assesses the harm as **less than substantial at a moderate level**, not at the bottom of the scale.

That is the more credible assessment. The Applicant cannot simultaneously acknowledge loss of important views and substantial industrial infrastructure within the farmstead's wider setting, yet minimise the effect principally because planting may ultimately obscure it.

Laurels Farmhouse and listed barn

Laurels Farmhouse and the listed barn immediately to its east form an important historic group. Edleston identifies open views south from the buildings and views north towards their roofscape and chimneys across farmland that forms part of their rural setting.

The Applicant concludes no harm. Edleston identifies an important omission: the proposed National Grid Substation and other Site 1 infrastructure have not been adequately considered in

the relevant wider views. Solar arrays and substation infrastructure would appear beyond the retained foreground land, with planting taking years to mature. He therefore identifies a degree of **less-than-substantial harm at the lower end of the scale**.

The point is again one of wider setting. Retaining an undeveloped strip immediately beside the listed group does not make the industrial infrastructure beyond heritage-neutral.

Hill House

Hill House is a Grade II listed former workhouse of 1836 designed by William Thorold. It is an unusually prominent three-storey building whose cross-plan form and central octagon are conspicuous within the surrounding flat agricultural landscape. Edleston identifies that open setting as contributing materially to significance, including through the building's historic function and the likely relationship between the workhouse and agricultural labour in the surrounding fields.

Sub-Site 2A lies immediately west of the road, with solar arrays set back only about 20m from it. The Applicant accepts that panels will change the setting but concludes that proposed planting, once mature after approximately 15 years, will preserve the roadside prominence of the building and that there will be no harm.

Edleston reaches the opposite conclusion. The introduction of arrays up to approximately 4.5m high into the presently open setting would materially alter views towards and from the building. For many years the planting would not provide the claimed screening; once mature, it would itself create enclosure and sever the open visual relationship between Hill House and the farmland that contributes to its significance. He therefore identifies **moderate less-than-substantial harm**.

The Applicant's 'no harm' conclusion is particularly difficult to sustain where it depends upon replacing an historically open setting with screening vegetation precisely because the development would otherwise be conspicuous within it.

Barn Cottages

Barn Cottages at Tivetshall St Margaret are a pair of Grade II listed 17th-century timber-framed and thatched cottages whose open rural surroundings have remained substantially undeveloped apart from the small terrace opposite. Edleston identifies numerous views of the cottages from the winding B1134/Station Road and considers their agricultural setting and likely historic association with the local farming community to make an important contribution to significance.

The Applicant accepts that the BESS, noise barrier and Project Substation would introduce another industrial-looking element into the wider landscape and that taller elements of the substation may be visible. It accepts lower-end less-than-substantial harm, but says this would reduce to no harm once woodland screening matures. Critically, it estimates that the planting may take approximately **30 years** to become sufficiently tall to screen the substation.

Edleston rejects the low assessment. The existence of distant maltings and pylons does not justify introducing further industrial infrastructure substantially closer to the cottages. Nor can the setting be reduced to the southern view favoured by the Applicant: the cottages are experienced

dynamically from a series of positions along the curving road. He concludes that the BESS and substation would introduce potentially dominant and incongruous industrial elements into the open setting and assesses **moderate less-than-substantial harm**.

BEPS agrees. A 30-year wait for screening is not an effective basis for treating harm as temporary or negligible.

10.7.2 Site 3 – Lundy Green

The Applicant identifies four Grade II listed buildings as potentially sensitive to Site 3: Townhouse Farmhouse, Rose Cottage, Three Feathers and the adjoining listed barn and stable range. It nevertheless concludes that the Scheme will cause no harm to any of them, relying principally on the approximately 350m setback, retention of the northern field as agricultural land and proposed planting.

Edleston agrees that Rose Cottage, Three Feathers and the adjoining barn/stable range would not experience material harm. His disagreement concerns Townhouse Farmhouse.

Townhouse Farmhouse sits on the south side of Lundy Green and has long views south across open farmland. The Applicant acknowledges that the surrounding agricultural landscape forms part of the setting but reasons that the nearest field will remain undeveloped, that panels further south are unlikely to be visible and that planting will further restrict views. It therefore concludes no harm.

Edleston's site inspection identifies long, open views in which the agricultural land forms the wider setting of the farmhouse and retains historic associations with the farmstead. Although the nearest field remains open, the 4.5m moving arrays beyond would form an industrial backdrop, with proposed planting taking years to establish and winter visibility remaining greater. He therefore assesses **less-than-substantial harm at the bottom of the scale**.

Site 3 demonstrates why a buffer field is not equivalent to preservation of setting. If the wider agricultural landscape contributes to significance, retaining the nearest parcel while industrialising the land beyond does not logically establish no harm.

10.7.3 Site 4 – Stratton St Michael and Tasburgh

Site 4 presents one of the clearest heritage conflicts in the Scheme. Site 4 contains an unusually concentrated heritage group. Edleston identifies nine listed buildings in close proximity to the Site, including the Grade I Church of St Michael and Grade II Old Rectory immediately south of Site 4B, together with seven Grade II buildings. The nearby Camp in Village/Tasburgh Hillfort Scheduled Monument requires separate consideration.

The independent Heritage Impact Assessment strengthens the objection to Site 4B. It identifies harm to the Grade I Church of St Michael, the Grade II* Old Rectory and the associated Grade II listed barn and recommends avoidance through removal of Site 4B development. The significance of this recommendation is that the harm arises not simply from a single direct view but from the

alteration of the historic relationship between the church, rectory, associated farm buildings and their open agricultural setting.

Church of St Michael, Old Rectory and listed barn

The Grade I Church of St Michael, Grade II* Old Rectory and Grade II barn north of the Rectory form an exceptionally important historic group.

Edleston records that their spatial, historic and visual relationship has remained substantially intact for centuries. The church is the principal historic building of Stratton St Michael; the Old Rectory retains its historic functional relationship with it; and the barn forms part of the same rural group. The surrounding agricultural land reinforces the relative isolation and rural function of all three.

The recent Long Stratton bypass has adversely affected the setting to the south, particularly through traffic noise and physical intervention. That does not extinguish the value of the remaining rural setting to the north. Indeed, Edleston identifies an important consequence of the bypass works: the new footpath and footbridge now provide a panoramic viewpoint from which the church, Old Rectory and barn can be appreciated together with open agricultural land beyond.

The Applicant acknowledges that the southern fields of Sub-Site 4B contribute to the significance of the Church of St Michael and has removed those fields from built development. It nevertheless concludes that the remainder of Site 4 makes no meaningful contribution to the church's setting and that any remaining views of PV arrays would be distant and minor. It similarly concludes no harm to the Old Rectory because there are said to be no direct views between it and Site 4, and no harm to the barn because the nearest fields are retained as grassland.

Edleston's evidence exposes the weakness of those conclusions. The arrays and proposed 132kV substation would sit beyond the retained foreground and would be experienced as an industrial backdrop in wider views from the churchyard, footpaths, footbridge and surrounding farmland. The issue is not whether the Old Rectory has a direct line of sight from a window; it is whether its historic relationship with the church, barn and surrounding rural landscape is altered. Edleston assesses the resulting harm to **all three assets as less than substantial at a moderate level**.

For a Grade I church and Grade II* rectory, that difference in professional judgment is highly material. The Applicant's no-harm conclusions should not be accepted merely because the closest development field has been removed.

Thatched Cottage

The Grade II Thatched Cottage, described in the application as the Cottage occupied by Mr and Mrs Woods, lies only about 30m south-west of Sub-Site 4B. Its simple vernacular form and longstanding relationship with the small agricultural settlement contribute to its significance.

The Applicant again relies on the undeveloped southern fields to conclude no harm. Edleston identifies wider views north from Church Lane and the new footbridge, and reciprocal views south from the agricultural land. The arrays and substation would appear beyond the retained foreground

as industrial elements within that setting. He therefore identifies **less-than-substantial harm at the lower end of the scale**.

Church Farmhouse

Edleston agrees with the Applicant that Church Farmhouse is relatively enclosed by mature vegetation and ancillary buildings and that no material harmful effect has been demonstrated. That agreement is important: the BEPS assessment is not predicated on finding harm to every asset.

The Cedars

The Cedars is a prominent Grade II listed building approximately 70m west of Sub-Site 4B. Although surrounded by trees and adjoining development, Edleston records numerous views from the A140, Church Lane and surrounding farmland in which its roofscape, chimneys and principal elevations are experienced within an open agricultural setting.

The Applicant concludes no harm, relying on limited intervisibility and retained land immediately east. Edleston identifies proposed arrays on open land north and east of the building and on both sides of the A140. These would be visible in several views and would introduce industrial infrastructure alongside the asset within a setting that has historically remained largely undeveloped. He assesses **less-than-substantial harm at the lower end of the scale**.

Pair of houses owned by Mr B R Weeden

The Applicant concludes that only a small portion of Sub-Site 4B is visible and that the proposed change will be confined to new grassland. Edleston identifies materially wider intervisibility from Church Lane and the surrounding farmland, with the panels and substation forming a distant but appreciable backdrop. He assesses **lower-end less-than-substantial harm**.

Edleston agrees that Well Meadow Cottage and The Hollies would not experience material adverse effects because of their more enclosed settings, distance and restricted intervisibility.

Camp in Village / Tasburgh Hillfort Scheduled Monument

The Scheduled Monument requires separate consideration. Edleston's HIA is principally concerned with the built historic environment and does not replace the archaeological and Scheduled Monument assessment.

The Applicant accepts that the hillfort occupies a deliberately elevated position and that this topographic siting is a key element of its design. It nevertheless concludes no harm because mature vegetation now limits views and because an existing solar farm already occurs within its wider setting. The monument itself is a substantial multi-period site: the HER evidence records a major enclosure with prehistoric, Roman, Anglo-Saxon and medieval activity, including earthworks, settlement, hearths and metalworking.

BEPS considers the Applicant's reasoning too dismissive. Present vegetation does not erase the significance of the hillfort's deliberate topographic position, nor does the existence of one solar

development establish that further industrialisation of the surrounding historic landscape is harmless. The issue should be considered cumulatively and in relation to the historic landscape as a whole, rather than treated solely as a present-day visibility test.

10.7.4 Site 5 – Fritton

Site 5 is another particularly sensitive heritage location. Sub-Site 5B directly adjoins Fritton Conservation Area. The Grade I Church of St Catherine lies approximately 20–25m south of the Site; Church Farmhouse and its listed barn lie approximately 60m and 30m away respectively. Site 5 also accommodates a proposed 400kV Project Substation within Sub-Site 5A as well as extensive PV arrays.

The independent assessment recommends removal of Site 5B because of its effect upon the setting of the Grade I Church of St Catherine, Fritton. It identifies the surrounding agricultural landscape as making a material contribution to the church's significance and considers the introduction of extensive solar infrastructure into that setting to cause less-than-substantial harm which is not adequately resolved by screening.

Church of St Catherine

St Catherine's is a Grade I medieval church of exceptional significance. Edleston identifies its isolated position, the approach along the path from The Street, the green churchyard, surrounding farmland and the pronounced sense of peace, tranquillity and seclusion as important attributes of its setting. Historic mapping shows that the church's relationship with the surrounding agricultural landscape has remained substantially unchanged for generations.

The Applicant itself accepts that the rural landscape contributes to the significance of the church, but concludes no harm because the land immediately north will become community space rather than built solar development, and because it considers views between the church and the remaining Site to be limited.

Edleston's field evidence directly challenges that proposition. He records views north, west and north-west from the churchyard and approach, with markedly greater intervisibility during winter months. His photographs specifically demonstrate the difference between summer and winter vegetation.

The Scheme would place PV arrays west and north-west of the church and a major 400kV substation further north-west. Edleston concludes that their scale, movement and industrial character would intrude into the rural setting and that any operational noise from the substation would also affect the tranquillity through which the church is presently experienced. He assesses **less-than-substantial harm at a moderate-to-high level**.

This is one of the most important heritage disputes in the application. A Grade I church only metres from the Order Limits should not be assigned 'no harm' on the basis of a retained foreground and summer vegetation where independent winter site evidence demonstrates a materially different relationship.

The potential acoustic component of that setting harm should be considered together with the evidence in Chapter 12. Heritage setting is experiential: tranquillity cannot be separated artificially from the assessment simply because noise is modelled in another ES chapter.

Church Farmhouse and listed barn

The Applicant expressly acknowledges that the agricultural landscape of Sub-Site 5B forms part of the wider setting of Church Farmhouse, that it helps the building to be appreciated as a traditional rural former farmhouse, and that the farmhouse and barn derive group value from their historic agricultural relationship.

Despite those findings, it concludes no harm.

Edleston identifies the inconsistency. The retained foreground does not prevent the arrays and 400kV infrastructure on rising land beyond becoming part of the wider setting. The open agricultural land has remained historically undeveloped and contributes to the significance of the group. The introduction of major electrical infrastructure on the skyline would therefore result in **less-than-substantial harm at the lower end of the scale**.

Fritton Conservation Area

Fritton Conservation Area is distinctly rural, with development dispersed around Fritton Common and along The Street and with open agricultural land forming its wider setting. The Applicant itself accepts that the approach from the north will experience 'slight changes in views' through introduction of the arrays, but concludes that because the built infrastructure is at least approximately 500m from the Conservation Area boundary, there will be no harm.

Edleston disagrees. When travelling north out of the Conservation Area, the arrays and substation would form part of the western and north-western backdrop and introduce industrial elements into a presently undeveloped rural landscape. He therefore identifies **less-than-substantial harm at the bottom of the scale**.

The Applicant's treatment is again too binary. An unchanged immediate approach does not preserve the wider rural setting of the Conservation Area if industrial infrastructure becomes an appreciable component of that setting immediately beyond it.

10.7.5 Site 7 – Tasburgh, Hempnall, Saxlingham and Woodton

Site 7 is the largest grouping within the Scheme and comprises twelve sub-sites extending from Tasburgh through Hempnall and Saxlingham towards Woodton. The application identifies numerous listed buildings immediately adjacent or close to those parcels, including Wood Farmhouse, Grove Farmhouse, Hill Farmhouse, the Former Quaker Meeting House, Tramp's Hall and barn, the Manor Farm group, Hill Cottages, Hill House and Grade II* Oaks Farmhouse. Saxlingham Green Conservation Area lies immediately north of parts of Site 7.

Edleston's HIA identifies a substantially wider pattern of harm at Site 7 than the Applicant. It finds lower-end less-than-substantial harm to Hill Farmhouse, Wood Farmhouse and Grove Farmhouse

at Sites 7A–7C; to Manor Cottage, Manor Farmhouse, Manor Farmhouse Barn, Hill Cottages, Hill House, Holly Cottage and Saxlingham Green Conservation Area at Sites 7D–7H; and moderate less-than-substantial harm to Grade II Oaks Farmhouse at Site 7L. The Applicant identifies no harm to any of those assets and had scoped Holly Cottage out altogether.

Sub-Sites 7A–7C

Edleston agrees that the Countryman Public House, Tramp's Hall and its listed barn, and the Former Quaker Meeting House would not experience harmful effects sufficient to alter their significance.

He reaches a different conclusion for Hill Farmhouse. The building has a prominent position near the A140/Fairstead Lane junction and retains historic relationships with surrounding agricultural land. The Applicant says there are no relevant views from the farmhouse towards Site 7A and concludes no harm. Edleston identifies views east from the entrance and reciprocal views west across the open land. Because the proposed panels would be visible on rising ground within that historic agricultural setting, he assesses **less-than-substantial harm at the lower end of the scale**.

Edleston concludes that both Wood Farmhouse and Grove Farmhouse would experience less-than-substantial harm at the lower end of the scale. Both are historic farmsteads whose surviving open agricultural surroundings make a positive contribution to significance. At Wood Farmhouse, panels would remain visible beyond the retained setback and the proposed woodland planting would ultimately create enclosure and sever the historic visual relationship with farmland. At Grove Farmhouse, Edleston similarly concludes that the Applicant has undervalued the contribution made by the wider agricultural setting and that both the panels and the proposed woodland screening would adversely alter that relationship.

Sub-Sites 7D–7H – Saxlingham Green

This part of Site 7 lies immediately beside a concentrated historic group comprising Manor Cottage, Manor Farmhouse, Manor Farmhouse Barn, Hill Cottages, Hill House and Holly Cottage, together with Saxlingham Green Conservation Area. The Applicant's own baseline identifies several of these buildings within 30–70m of the Site and the Conservation Area immediately north of Sub-Sites 7D and 7F.

Edleston's completed setting assessment identifies the Conservation Area as one in which natural landscape, historic buildings, greens, footpaths and surrounding countryside interact to create significance. He identifies a particularly strong sense of arrival from the south, where the experience changes from wide open agricultural views to the historic settlement around The Green. He similarly identifies the surrounding farmland as contributing to the significance of Manor Cottage, Manor Farmhouse, Hill Cottages and Holly Cottage.

Edleston's final assessment concludes that Manor Cottage, Manor Farmhouse, Manor Farmhouse Barn, Hill Cottages, Hill House and Holly Cottage would each experience less-than-substantial harm at the lower end of the scale. He reaches the same conclusion for Saxlingham Green Conservation Area. The common cause is the loss or enclosure of the open agricultural setting through which these buildings and the Conservation Area are presently approached and experienced. Particularly important is Broaden Lane: the present transition from open farmland to the historic buildings at the entrance to Saxlingham Green would instead be experienced through or alongside solar infrastructure and screening vegetation. Holly Cottage is additionally significant because the Applicant scoped it out, whereas Edleston's field assessment identifies a harmful effect.

Sub-Sites 7I–7L – Oaks Farmhouse

Oaks Farmhouse is a Grade II* 16th- and 17th-century farmhouse lying approximately 180m east of Sub-Site 7L. Its high designation reflects substantial architectural and historic interest. Edleston records that it occupies an isolated rural position surrounded by open land which has remained undeveloped for centuries.

Importantly, the Applicant itself acknowledges that Sub-Site 7L contributes to the significance of Oaks Farmhouse and that there is intervisibility between the Site and the listed building. It nevertheless concludes no harm, relying substantially on augmentation of existing planting which it says will screen the panels once mature after approximately 15 years.

Edleston considers that conclusion unsustainable. Panels would be visible above the low boundary hedgerow in views from and towards the farmhouse, with winter visibility greater. The screening would not become effective for many years and, once mature, would itself sever the historic visual relationship between the farmhouse and its open surroundings. He therefore assesses **moderate less-than-substantial harm**.

That conclusion is particularly important because Oaks Farmhouse is one of only two Grade II* listed buildings the Applicant itself scopes into the detailed assessment.

The independent assessment also recommends removal of Site 7L in response to harm to the setting of the Grade II* Oaks Farmhouse. The recommendation is particularly material because it again reflects a conclusion that screening or later landscape treatment would not provide an equivalent heritage outcome to avoidance.

10.7.6 Site 8 – Upgate Green

The principal designated assets are Grade II Upgate Green Farmhouse and the separately listed outhouse immediately to its north. They form an important historic farmstead group within a predominantly open agricultural landscape.

Edleston identifies the surrounding gently undulating farmland as having important historic associations with the buildings and as making a positive contribution to their significance. There are open views south from the group and views north towards it across the farmland from Brooke Road.

The Applicant accepts some change to setting but concludes no harm. Edleston considers that the retained land immediately south does not resolve the effect because the arrays would occupy rising ground beyond and would be visible on the skyline. Existing hedgerows would not screen panels of the proposed height and enhanced planting would take years to become effective. He therefore identifies **less-than-substantial harm at the lower end of the scale**.

The conclusion is consistent with the Applicant's own LVIA evidence, which identifies significant visual effects at a number of Site 8 viewpoints, including the edge of Upgate Green Farm and other positions on Brooke Road during earlier stages of the mitigation period. That does not itself prove heritage harm, but it reinforces the need for a credible qualitative assessment rather than an assumption that planting removes the issue.

10.7.7 Site 9 – Brooke

Site 9 lies immediately south of Brooke in an agricultural landscape adjoining the southern edge of Brooke and Kirstead Conservation Area. The Applicant identifies Waterfield Cottage, Oldhouse Farmhouse, the listed Barn at Oldhouse Farm and Littlebeck Farmhouse as potentially sensitive, together with the Conservation Area.

Edleston's field assessment provides important evidence about their settings. Oldhouse Farmhouse and its listed barn form a historic group surrounded by open agricultural land to the east and south. The farmhouse and barn are experienced together from the road and across farmland, and Edleston identifies important historic relationships between the buildings and surrounding land. Littlebeck Farmhouse similarly retains an agricultural setting, with views across open land towards its earlier rear range. Brooke and Kirstead Conservation Area retains a rural southern edge backed by open agricultural fields.

The Applicant's LVIA is itself relevant context. It predicts significant visual effects at several Site 9 receptors during early phases, including Brooke FP6, Mill Lane, the vicinity of Oldhouse Farm and the southern side of High Green. Again, visual effect is not automatically heritage harm, but those findings make a blanket conclusion that the historic setting is unaffected particularly difficult to accept without careful explanation.

Edleston's final assessment concludes that Oldhouse Farmhouse and its listed barn, Littlebeck Farmhouse and Brooke and Kirstead Conservation Area would each experience less-than-substantial harm at the lower end of the scale. He agrees with the Applicant that Waterfield Cottage would not be harmed. The distinction is important: the independent assessment does not assume harm merely from proximity, but identifies it where field inspection demonstrates that open agricultural land makes a positive contribution to significance and would be materially altered by the Scheme.

At Oldhouse Farmhouse and Barn, the proposed panels would occupy land historically and visually associated with the farmstead and would appear on the horizon within its open setting. At Littlebeck Farmhouse, the effect is aggravated by the position of panels immediately north of Littlebeck Lane: screening would take years to mature and would itself convert the present open approach into an enclosed corridor. At Brooke and Kirstead Conservation Area, the arrays would

replace the present agricultural foreground in views towards the historic settlement edge with an industrialised solar landscape.

Site 9 also has substantial archaeological importance, considered separately below. The discovery of multi-period activity, including evidence not apparent from the earlier baseline, reinforces the wider point that this is not an historically empty landscape.

10.7.8 Site 10 – Woodton and Seething

Site 10 lies within the rural landscape between Woodton and Seething. The built heritage receptors considered by Edleston include the Grade II Old Rectory, Beulah House and Beulah Barn, together with Seething Conservation Area. The Applicant's original scoping material identified the Old Rectory approximately 300m west of Site 10, Beulah House and Beulah Barn approximately 400m west, and Seething Conservation Area further north-east.

Edleston's site evidence records that Beulah House and Beulah Barn have open agricultural land immediately to the east, with rising and gently undulating farmland forming the wider backdrop. Beulah Barn, an early timber-framed threshing barn, is experienced with Beulah House across this surrounding open land. The Old Rectory is more enclosed by mature vegetation but remains part of the same rural settlement landscape.

Edleston undertook a substantive assessment of Seething Conservation Area because he considered it potentially affected, whereas the Applicant identified it as potentially affected but did not carry out an impact assessment. Edelston considers it potentially affected because its linear agricultural settlement form is experienced within and from the surrounding open farmland. He records partial views towards the Conservation Area from surrounding fields and notes that the settlement has avoided major suburban expansion, leaving its linear historic character comparatively intact.

That decision is important evidence of the methodological dispute. It shows that the Applicant's scoping exercise has not merely produced different harm gradings; it has removed from substantive assessment a Conservation Area that an independent heritage professional, after field inspection, considers potentially affected.

Edleston's final assessment agrees that the Old Rectory would not be harmed but concludes that Beulah House, Beulah Barn and Seething Conservation Area would each experience less-than-substantial harm at the lower end of the scale. At Beulah House and Barn, the rising agricultural land to the east forms their backdrop and contributes to their setting. Edleston concludes that the 4.5m tracker arrays would be clearly visible on that rising ground, particularly in winter, and identifies the proposed 132kV Project Substation at Site 10C as an additional element inadequately addressed by the Applicant's assessment.

Seething Conservation Area is more fundamental still. Although identified as potentially affected, the Applicant did not carry out a substantive impact assessment. Edleston does. He finds that the Conservation Area retains a well-preserved linear settlement form derived from its rural agricultural economy and that Site 10E would introduce moving solar infrastructure into its open southern agricultural setting and approach. He accordingly identifies lower-end less-than-

substantial harm. This is a direct example of the Applicant's scoping process failing to capture a heritage effect subsequently identified through independent field assessment.

Site 10 also contains archaeological evidence of exceptional interest, including the regionally significant early medieval pottery-production evidence considered in Section 10.11 below. Built heritage and archaeology should therefore be examined together as evidence that Site 10 lies within a historically rich landscape, not as unrelated receptors capable of being dismissed individually.

10.8 The scale of the independent disagreement

The scale of disagreement between the Applicant and the independent assessment is substantial.

The Applicant's ES identifies harm to a very limited number of designated assets and generally concludes that residual cultural-heritage effects are not significant in EIA terms.

By contrast, the independent September 2026 Heritage Impact Assessment identifies less-than-substantial harm from the principal built development to 36 designated heritage assets and adverse effects on 41 designated assets overall when highway and abnormal-load effects are included.

That difference is important for two reasons.

First, EIA significance and heritage-policy harm are not the same test. A heritage effect may fall below the Applicant's threshold of "significant" for EIA purposes while still constituting less-than-substantial harm requiring weight in the policy balance.

Secondly, the numerical difference reflects a substantive methodological disagreement about setting rather than merely different professional labels. The independent assessment considers the Applicant to have underweighted historic landscape relationships, openness, settlement approaches, sequential views and the effect of screening upon heritage significance.

The ExA should therefore not rely upon the Applicant's headline conclusion of no significant residual heritage effect as though that were equivalent to a finding of no heritage harm.

10.8.1 Sites where avoidance is recommended

The independent assessment identifies three locations where the heritage conflict is sufficiently serious that avoidance through removal of development is recommended:

Site 4B, principally in relation to the Grade I Church of St Michael, the Grade II* Old Rectory and the Grade II listed barn;

Site 5B, principally in relation to the Grade I Church of St Catherine at Fritton; and

Site 7L, principally in relation to the Grade II* Oaks Farmhouse.

These recommendations are significant because they apply the mitigation hierarchy at the design stage. The assessment does not merely propose additional screening around retained development; it concludes that in these locations the heritage harm is best addressed by removing the conflicting development.

BEPS relies upon those recommendations as evidence that the present layout has not exhausted reasonable heritage-led avoidance.

10.9 Conservation Areas

The independent assessment identifies less-than-substantial harm to all four Conservation Areas it assesses as affected: **Fritton, Saxlingham Green, Brooke and Kirstead, and Seething**. The Applicant identifies no harm to any of them.

The common issue is the Applicant's treatment of the countryside outside the designated boundary as principally visual background. In each case, Edleston identifies a historically meaningful relationship between settlement and surrounding farmland. At Fritton, buildings remain dispersed around the common and backed by agricultural land. At Saxlingham Green, the approach from the south is characterised by a marked transition from open farmland into the historic settlement. At Brooke, the High Green settlement edge retains open agricultural countryside to the south. At Seething, the historic linear settlement survives without large-scale suburban expansion and remains experienced within surrounding farmland.

Development does not need to cross a Conservation Area boundary to harm its significance. Where the rural approach, backdrop or relationship with surrounding countryside contributes to character or appearance, replacement of that countryside by tracker arrays, electrical infrastructure or dense screening planting is capable of causing heritage harm.

The road and access works add a further dimension. The Scheme requires construction traffic, AIL movements and potentially vegetation clearance and highway intervention through or close to historic settlements. South Norfolk Council has specifically raised concern about mature-tree removal and landscape effects in or adjacent to conservation areas including Saxlingham Green and Saxlingham Nethergate and has required the Applicant to demonstrate that access works are located in the least harmful way.

The conservation-area assessment must therefore address the whole experience of those places: their rural approaches, settlement morphology, roadside vegetation, historic lanes, tranquillity and relationship with surrounding agricultural land. The Applicant's 'no harm' conclusions do not do so adequately.

0.10 Archaeology: a landscape of prolonged occupation

Edleston's HIA is deliberately confined to listed buildings and Conservation Areas and does not assess below-ground archaeology. That evidence must therefore be considered separately. The archaeological evidence does not support any characterisation of the Order Limits as low-value agricultural land with occasional isolated remains.

The Applicant's own geophysical and evaluation work demonstrates prolonged human activity across the Scheme, including prehistoric funerary and settlement evidence, Iron Age and Roman occupation, medieval settlement and field systems, and later historic activity. Importantly, previously unrecorded archaeology has been identified during the Scheme's own investigations. The absence of an HER record is therefore not evidence of archaeological absence.

Particularly important concentrations include the prehistoric, Roman and medieval evidence around Site 4; medieval and settlement-related evidence around Site 5; substantial multi-period occupation at Site 9; and the early medieval pottery-production evidence at Site 10. The latter has been identified by the Applicant's archaeological work as regionally significant and unusually important.

This evidence requires a precautionary approach to those parts of the Scheme that remain incompletely evaluated. The archaeological question is not simply whether known features can be microsited around. It is whether sufficient investigation has been completed before consent to establish the significance, extent and vulnerability of archaeological remains that may be affected by arrays, substations, cable trenches, roads, compounds, piling and HDD works.

10.11 Cable Route Corridor: the archaeological baseline remains incomplete

The Cable Route Corridor remains a material weakness in the cultural-heritage assessment. The Applicant's earlier scoping material contemplated direct archaeological effects from the CRC and a 500m cultural-heritage study area. Yet substantial archaeological investigation of the corridor was not complete when the DCO application was prepared.

This matters because the CRC is not a negligible line on a plan. Cable installation may require trenching, construction compounds, joint bays, access, working areas and HDD launch and reception pits. Those activities are capable of directly affecting archaeological deposits and palaeoenvironmental material even though the cable itself will ultimately be buried.

The Scheme's archaeological evidence already demonstrates that previously unknown archaeology can occur across apparently ordinary farmland. It is therefore unsafe to assume that unsurveyed or incompletely evaluated sections of the CRC are of low significance merely because no designated asset is recorded there.

BEPS does not contend that every archaeological detail must necessarily be resolved before consent. The objection is narrower and more important: where potentially significant archaeological remains may affect the acceptability or micrositing of the authorised works, sufficient evaluation must occur while meaningful avoidance remains possible. Post-consent investigation should refine a sufficiently understood baseline; it should not establish for the first time whether nationally important or otherwise highly significant archaeology lies in the path of authorised works.

10.12 Historic England's concerns remain material

Historic England's Relevant Representation does not support the proposition that cultural heritage is a wholly resolved matter. Historic England identifies residual heritage harm and the need for that

harm to be weighed appropriately in the planning balance. Its position is therefore materially different from an argument that the Scheme has no heritage effect.

The significance of Historic England's position should be considered alongside the independent assessment. Historic England and David Edelston do not necessarily identify the same number or degree of affected assets, but both recognise that heritage harm remains and that the effect upon setting cannot simply be dismissed because direct physical loss is avoided.

Historic England considers that changes to the settings of some designated assets are likely to amount to heritage harm in policy terms, that residual harm will remain after mitigation, that some areas within the Order Limits remain incompletely archaeologically evaluated and that previously unknown archaeology of potentially high significance may still be encountered.

Historic England also identifies the CRC methodology and mitigation as requiring further scrutiny and raises potential cumulative effects with Tasway Energy Park and associated BESS development. These are therefore live examination matters, not objections superseded by submission of the ES.

The significance of Edleston's HIA is that independent site-based assessment now identifies the scale of setting harm that Historic England had warned needed to be properly understood. The Applicant's near-universal 'no harm' conclusion should therefore not be treated as an agreed heritage position.

ExQ1 has subsequently required the heritage assessment to be considered against the August 2026 NPPF. That is important because the Applicant's ES was prepared against the preceding version of national policy. The Applicant should therefore identify whether and how its heritage conclusions change when tested against the current framework, rather than relying upon superseded paragraph references or assuming that the earlier policy assessment remains sufficient.

10.13 Compliance with the Scoping Opinion

The Scoping Opinion did not give the Applicant a general licence to exclude setting or archaeological effects. PINS required the ES to justify its cultural-heritage study areas robustly, identify sensitive receptors with reference to professional guidance and likely impacts, consider longer views towards and from affected assets and seek agreement with relevant bodies as the assessment developed.

PINS accepted the Applicant's proposal to scope out operational setting effects from the buried CRC, but that does not dispose of the direct archaeological effects of cable construction, HDD pits, compounds and associated works. Nor does it remove the requirement to assess temporary works and construction effects where sensitive heritage receptors may be affected.

The relevant question at Examination is therefore not whether Chapter 10 formally contains each heading anticipated at scoping stage. It is whether the final evidence now provides a sufficiently

robust basis to understand significance and harm. The independent HIA and the remaining archaeological uncertainty demonstrate that this question remains open.

10.14 Cumulative historic-landscape effects

The cumulative heritage assessment is particularly weak because the principal effect of East Pye is itself cumulative in character. This is not one compact solar field viewed from one heritage asset. It is a dispersed network of arrays, substations, BESS infrastructure, a National Grid Substation, access works and approximately 24km of cable corridors extending across numerous historic settlements and heritage settings.

Historic England has specifically identified potential cumulative effects with Tasway Energy Park and associated BESS development. South Norfolk Council has likewise warned that the combination of East Pye, Tasway, Norwich to Tilbury and other energy infrastructure could cause landscape and heritage harm through industrial-scale infrastructure incompatible with rural character.

The relevant cumulative receptor is therefore not merely the view from an individual listed building. It is the surviving historic agricultural landscape within which many of those buildings derive significance. Successive introduction of solar arrays, grid infrastructure, BESS compounds, pylons, highway works and screening belts can progressively erode the openness, tranquillity and settlement-to-countryside relationships that define that landscape.

The Applicant cannot answer that issue by reasoning that East Pye produces no significant effect and therefore cannot materially contribute to a cumulative effect. Edleston's evidence identifies harm to 36 designated assets. The premise underlying the Applicant's cumulative conclusion is therefore itself disputed.

10.15 Construction, traffic and tranquillity are heritage effects

Heritage setting is not exclusively visual. Historic England specifically advised that East Pye should consider the way assets are approached and experienced and the effects of noise, light and traffic.

This is material to a Scheme requiring extensive HGV and abnormal-load movements through narrow historic lanes and settlements. The physical works required for access may include vegetation clearance, visibility splays and local highway intervention, while the traffic itself alters the experience of quiet rural approaches and settlement cores. South Norfolk Council has specifically raised concerns about vegetation removal and heritage and landscape effects associated with the revised access proposals.

St Catherine's Church provides the clearest built-heritage example. Edleston identifies peace, tranquillity, isolation and the secluded approach to the Grade I church as components of its setting and concludes that noise associated with the proposed substation could itself adversely affect the way the asset is experienced.

The independent heritage assessment identifies adverse effects on additional designated assets when highway and abnormal-load effects are included, increasing the overall number of affected

designated assets from 36 in relation to principal built development to 41 overall. That finding confirms that the heritage assessment cannot properly be confined to the solar fields themselves. Construction routes, road widening, abnormal-load movements and changes to historic lanes and approaches form part of the way the Scheme is experienced in the historic environment.

These matters must therefore be considered together with Chapters 11 and 12. A conclusion that traffic or noise falls below the significance threshold in another ES chapter does not establish absence of heritage harm where tranquillity, seclusion or the character of an approach contributes to heritage significance.

10.16 Sixty years is a material heritage timescale

The Scheme is described as temporary, but its proposed operational period is 60 years. In heritage terms that is not a short-lived intervention. It represents a substantial period during which historic buildings, settlements and Conservation Areas would be experienced within an industrialised setting.

The point is particularly important where the Applicant relies upon mitigation becoming effective only after approximately 15 years, or approximately 30 years in the case of Barn Cottages. Edleston identifies both the delay in achieving screening and the separate harm that screening itself may cause by enclosing historically open settings.

Decommissioning does not retrospectively remove those effects. Nor should restoration be assumed to recreate automatically the historic spatial and landscape relationships existing before construction. The whole-life heritage assessment must therefore consider construction, the pre-maturity period, mature mitigation, replacement and maintenance activity, decommissioning and the resulting post-development landscape.

10.17 Why the Applicant's residual heritage conclusion is unreliable

The Applicant's conclusion of essentially no significant residual cultural-heritage effect sits uneasily with the scale of change admitted elsewhere in the ES and with the independent heritage evidence.

The independent September 2026 assessment identifies harm from the principal built development to 36 designated heritage assets and adverse effects on 41 overall when highway and abnormal-load effects are included. Those assets include two Grade I and three Grade II* listed buildings.

The principal reasons for the difference are identifiable:

- the Applicant gives insufficient weight to historic and functional setting relationships;
- visibility is treated too heavily as a proxy for setting;
- open agricultural land is too readily treated as neutral background;

- the effect of development upon historic approaches and sequential experience is understated;
- screening is treated predominantly as mitigation rather than also as a potential alteration of historic openness;
- seasonal visibility is insufficiently recognised; and
- highway and construction effects are not integrated fully into the heritage picture.

The ExA should therefore distinguish carefully between the Applicant's EIA conclusion that an effect is 'not significant' and the separate heritage-policy conclusion that harm exists. The former does not extinguish the latter.

10.18 Overall conclusion and remedies sought

East Pye is proposed within a surviving historic agricultural landscape in which listed farmsteads, medieval churches, vernacular buildings, Conservation Areas, historic lanes and archaeological remains remain unusually closely related to the open land around them. The Applicant's assessment largely treats that land as neutral unless strong direct visibility can be demonstrated. The independent evidence shows that approach to be too narrow.

The most serious conflicts concern the Grade I Churches of St Michael and St Catherine, the Grade II* Old Rectory and Oaks Farmhouse, together with the wider concentrations of historic farmsteads and Conservation Areas at Sites 1, 4, 5, 7, 8, 9 and 10.

The Applicant's assessment presents heritage harm as narrow and largely capable of being reduced through setback, screening and landscape mitigation. The independent September 2026 Heritage Impact Assessment reaches a materially different conclusion, identifying less-than-substantial harm from the principal built development to 36 designated heritage assets and adverse effects on 41 designated assets overall when highway and abnormal-load effects are included. The affected assets include two Grade I and three Grade II* listed buildings.

That evidence establishes that the heritage cost of the Scheme is materially greater than the Applicant's residual-effect tables suggest and must be given corresponding weight in the planning balance.

The strongest avoidance case concerns Sites 4B, 5B and 7L, where the independent assessment recommends removal of development to avoid harm to highly significant designated assets and their settings. BEPS submits that those recommendations should be examined before reliance is placed upon screening or later landscape management.

More generally, the ExA should require the Applicant to reconcile its assessment with the independent evidence, explain why the wider range of identified harms is not accepted, and apply the August 2026 NPPF to the current Scheme. Where harm remains, it must not be obscured by a conclusion of 'no significant EIA effect'.

If the Applicant cannot demonstrate that the identified heritage harm has been properly characterised, avoided where reasonably possible and given appropriate weight in the decision-making balance, that harm should weigh materially against the grant of development consent.

The primary remedy is refusal.

If the ExA nevertheless considers that consent may remain capable of recommendation, BEPS submits that, at minimum, the Examination must first require:

(a) completion of the material outstanding archaeological evaluation, particularly along the CRC and at locations affected by deep foundations and HDD;

(b) a revised assessment expressly addressing the independent HIA and the 36 identified designated-asset harms;

(c) proper assessment of cumulative effects upon Historic Landscape Character, including Tasway and relevant BESS/grid infrastructure;

(d) assessment of winter as well as summer setting conditions where deciduous screening is material;

(e) maximum-parameter assessment of the BESS, National Grid Substation and Project Substations sufficient to demonstrate the heritage worst case;

(f) reconsideration of development within the most sensitive settings, including whether avoidance or deletion of development is required rather than reliance on screening;

(g) appropriate requirements securing archaeological investigation, preservation in situ where justified, excavation and publication where necessary, and heritage-sensitive construction and decommissioning controls.

If those matters cannot be resolved sufficiently for the ExA and Secretary of State to understand the significance and extent of the heritage harm before consent, the appropriate conclusion is that the cultural-heritage case has not been made.

End of Volume 2

Written Representations submitted in response to East Pye Solar
PINS Reference: EN0110014

Volume 3: Chapters 11 – 20

Submitted by BEPS (Block East Pye Solar F816760F0)

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Chapter 11: Transport, Access and Scheme Deliverability

11.1 Introduction: transport is a project-critical gateway issue

BEPS's objection to Chapter 11 is not confined to the environmental consequences of additional traffic. The more fundamental issue is whether the Applicant has demonstrated a lawful, safe and implementable means of constructing the development for which consent is sought.

East Pye Solar is an unusually dispersed scheme comprising multiple solar development areas, an extensive Cable Route Corridor, a BESS, project substations, a new National Grid substation, grid-connection infrastructure, construction compounds, access tracks and associated works spread across a wide area of rural South Norfolk. The Scheme cannot be constructed merely by bringing traffic to one principal entrance and distributing it within a self-contained site. Its implementation depends on a network of public-road routes, new and altered accesses, road crossings, internal haul routes, holding compounds, abnormal-load routes, temporary traffic controls, Public Right of Way management measures and highway works extending across a large number of separate locations.

The Applicant nevertheless treats transport principally as an environmental-effect topic capable of being resolved through embedded management. Chapter 11 concludes that, following implementation of the embedded mitigation, no residual transport effects have been identified during construction or decommissioning. Its summary table categorises the relevant receptors as having high sensitivity or identifies high impacts in relation to severance, non-motorised-user delay and amenity, fear and intimidation, road safety and hazardous or large loads, but then concludes that each resulting effect is not significant. Chapter 11 further states that no additional mitigation is required because no significant effects have been identified once embedded and secondary mitigation are taken into account.

That conclusion is not credible when tested against the current positions of the two highway authorities.

Norfolk County Council, as local highway authority, states in its June 2026 Relevant Representation that the present strategy for Sites 7–10 does not adequately address the significant highway constraints, does not provide sufficient mitigation and 'cannot be supported'. It requires construction traffic to enter and leave by roads of an appropriate standard and to reach the individual development parcels through Cable Route Corridors or internal haul routes.

National Highways, as strategic highway authority, has also lodged a formal objection. It requires further assessment of the operation of Strategic Road Network junctions, particularly the A47/A140 junction; more detailed cumulative assessment; binding traffic limits and monitoring arrangements; a strengthened Construction Worker Travel Plan; further AIL information; and amendment of

Requirement 15. It states expressly that it is unable to remove its objection unless all outstanding matters are resolved before the Examining Authority's recommendation.

The Applicant's conclusion that transport effects are not significant therefore rests on a transport solution which is not accepted by either highway authority in its submitted form. It also rests on treating future route selection, detailed highway design, traffic-control measures, passing places, worker-travel controls, abnormal-load arrangements and detailed management plans as though they were established and effective mitigation. They are not. In several important respects, they remain proposals to be developed, agreed or redesigned after consent.

The Transport Assessment and associated plans disclose a project dependent on 65 construction access and crossing points. The Applicant proposes internal haul routes, construction compounds, vehicle holding areas, call-forward systems, marshals, temporary traffic controls, restricted delivery periods and one-at-a-time HGV release on constrained routes. The need for that level of intervention is itself evidence that the existing network does not naturally accommodate the Scheme.

There are also direct conflicts between the submitted application and NCC's position. NCC's November 2025 targeted-consultation response stated that the proposed access strategy was unacceptable, rejected construction traffic on Hall Lane, rejected the use of Fairstead Lane for construction traffic and required access from appropriate A or B roads followed by internal haul routes. Yet Hall Lane remains within the Applicant's later routeing strategy, including for access to a Cable Route Corridor compound and for AIL movements. The unresolved issue is therefore not merely how Hall Lane will be managed. It is whether that route can lawfully and acceptably form part of the scheme at all.

The AIL case remains similarly unsettled. National Highways records that the Applicant has not yet determined the AIL routes and warns that there are existing constraints on parts of the SRN. It expects the use of the nearest suitable port under the water-preferred policy and requires agreement to any route using the SRN. It specifically recommends that a workable and acceptable strategy be established in principle before a decision is made. The Applicant has therefore not demonstrated that the major transformers, cable drums and other abnormal components can be delivered by routes which are physically available, acceptable to the highway authorities, environmentally assessed and contained within the necessary land and powers.

These matters cannot be dismissed as details for a future CTMP. Traffic management can regulate the use of a route that is already shown to be available and acceptable. It cannot establish after consent whether a route exists, whether the highway authority accepts it, whether the necessary land and works are available, or whether an alternative alignment would create new ecological, drainage, heritage, landscape or compulsory-acquisition effects.

The correct examination question is therefore not simply whether construction traffic could in some general sense be 'managed'. It is whether the Applicant has demonstrated an implementable transport and access strategy for the

development actually described in the application. On the current evidence, it has not.

11.1.1 Updated national transport policy

The August 2026 National Planning Policy Framework post-dates the Applicant's ES. The Energy NPSs remain the primary policy framework for this NSIP, but the current NPPF is a relevant material consideration and reinforces several matters raised in this chapter.

Policy TR6 requires significant movement-generating development to be supported by an appropriate transport assessment and travel plan. Importantly for East Pye, the assessment must address reasonable future scenarios, relevant times of day, cumulative impacts and multimodal trip generation. Travel plans should identify fallback measures where the measures initially proposed do not achieve the expected outcomes. Policy TR8 separately requires protection and enhancement of the PRoW network, with suitable diversions agreed with the highway authority, and encourages direct and circular connections between local and long-distance walking, cycling and bridleway routes.

These provisions are particularly relevant where East Pye relies upon future route refinement, worker-travel assumptions, traffic management and later PRoW design to support conclusions of no significant effect. The policy question is not simply whether mitigation is proposed, but whether the assessed strategy remains workable under reasonable future conditions and whether credible fallback arrangements exist if the assumed measures fail.

11.2 The Scheme is structurally dependent on an exceptionally extensive access system

The scale and physical form of East Pye Solar make transport and access integral to the definition and deliverability of the Scheme. They are not ancillary matters capable of being separated from the principal development.

The Scheme is distributed across ten principal site areas, themselves divided into multiple sub-sites, together with the Cable Route Corridor, the BESS, project substations, the proposed National Grid substation, grid-connection works and temporary construction compounds. The development extends across a wide rural area containing numerous public roads, minor lanes, watercourses, PRoWs, promoted trails, settlements, heritage receptors and environmentally sensitive areas.

The Outline CTMP identifies 65 construction access and crossing points serving the Sites and Cable Route Corridor. It also anticipates highway works on constrained parts of the local road network and recognises that narrower sections may require passing places or temporary traffic management. The Access and PRoW plans show that these interventions are spread across the Scheme rather than concentrated at a small number of robust access points.

The physical delivery system includes:

- direct accesses from public roads;
- crossing points where haul routes or Cable Route Corridors intersect roads;
- internal haul routes linking development parcels;
- construction compounds and laydown areas;
- vehicle holding areas;
- call-forward arrangements;
- temporary passing places;
- traffic marshals and banksmen;
- temporary traffic signals and speed restrictions;
- PRoW crossings, closures and managed routes;
- abnormal-load routes;
- and temporary highway, vegetation and street-furniture works.

The Applicant's internal haul-route strategy is presented as mitigation, but it also reveals the Scheme's structural dependence on linked construction infrastructure. The haul routes are intended to reduce use of unsuitable rural roads by moving vehicles internally between site parcels. That means the viability of one parcel may depend upon access being secured through another parcel, upon a Cable Route Corridor being engineered for construction traffic, or upon a road or watercourse crossing being available at the required time.

The construction parcels therefore cannot sensibly be treated as wholly independent sites. The ability to build Sites 7, 8 or 9, for example, depends on the availability of an integrated strategy for reaching and moving between them. Similarly, the ability to construct Sites 1 and 2, the BESS, the National Grid substation and associated substations depends on a coordinated strategy using Station Road, internal routes and highway crossings. If a critical public-road approach, internal link or crossing is unavailable, the problem cannot necessarily be solved by diverting traffic to another independent entrance without creating new traffic, land, engineering or environmental effects.

The Applicant also intends to retain access infrastructure beyond the initial construction period. Accesses and internal routes will be required for operation, maintenance, fault response, equipment replacement, panel replacement, BESS replacement, transformer replacement and decommissioning. The transport system is therefore not a temporary adjunct lasting only for the initial construction programme. It is part of the long-term physical infrastructure and operating logic of the Scheme.

This matters because the Applicant repeatedly relies on later management plans to finalise the detailed arrangement. But where a project depends upon dozens of linked accesses and crossings across a constrained rural network, the existence and acceptability of those routes is a prerequisite to consent. A later CTMP may prescribe delivery times, signage, marshal procedures and monitoring. It cannot cure the absence of a proven route, obtain land outside the Order Limits, resolve an unassessed watercourse crossing or convert a route rejected by the highway authority into an acceptable one.

The dependence on vehicle holding and one-at-a-time release arrangements reinforces the point. The Applicant's own technical work proposes that vehicles should be held at compounds and released individually along narrow routes, under the control of traffic marshals, in order to reduce conflicts. For Sites 7A–F, the technical work proposes use of Site 4A as a holding area and one-at-a-time

HGV movements towards the construction sites. The Applicant's own conflict analysis for Fairstead Lane records materially increased conflict probabilities, including particularly high probabilities during certain periods.

Those arrangements are not ordinary details of site management. They are evidence that the road network lacks sufficient width or resilience for normal two-way construction traffic. They also create dependence on the availability and capacity of holding compounds, the effectiveness of communication systems, compliance by suppliers, the continued presence of trained marshals and the ability to maintain the proposed construction programme within a restricted delivery window.

The number and distribution of accesses also have direct implications for land powers and environmental assessment. Each access or crossing may require visibility splays, vegetation removal, road-edge works, drainage provision, temporary occupation, traffic regulation, PRoW management or third-party rights. Each internal haul route may interact with hedgerows, protected habitats, watercourses, archaeology, agricultural land, drainage and other infrastructure. The Applicant has not demonstrated through a single consolidated schedule that all 65 access and crossing points, their necessary highway works and the connecting internal routes are fully contained within the Order Limits, supported by sufficient land powers and environmentally assessed in their final form.

The correct inference is that the access strategy forms part of the essential physical design of the development. It is not a peripheral matter. Without a complete and workable access system the solar arrays, BESS, substations, cable infrastructure and National Grid works cannot be constructed.

Where a scheme depends upon dozens of accesses, crossings and linked haul routes across a constrained rural network, the availability and acceptability of those routes is a precondition of deliverability. It cannot safely be left as a matter of later traffic management.

11.3 The Applicant has assessed a transport strategy that the local highway authority does not support

The most important evidence on local highway deliverability is Norfolk County Council's June 2026 Relevant Representation. It shows that NCC is not merely requesting minor changes to the submitted CTMP. It requires a materially different access architecture.

For Sites 1A–2C, NCC requires only one access from B1134 Station Road, with CRC2 and CRC3 used to distribute vehicles internally. It states that no new or enhanced access should be provided on the A140 and that haul-route crossing facilities should be used at Lodge Road and Frith Way. It also requires HDD beneath the A140.

For Sites 3A and 3B, NCC states that access should be obtained either through Site 5B using CRC6 and CRC5, or through a new access on Alburgh Road connecting to CRC6.

For Sites 4A and 4B, NCC requires rationalisation of the access arrangements. Site 4A should be accessed from the A140 Hempnall Roundabout, while Site 4B should use a single access from B1527 Hempnall Road or alternatively be served through CRC6.

For Sites 5A and 5B, NCC requires both sites to be served by a single access on the B1527, with internal routeing between the parcels. Site 6 may be accessed from Alburgh Road.

For the most problematic group—Sites 7A–7K, Sites 8A–8B and Site 9—NCC requires all sites to be accessed through CRC8 west of Hempnall, with internal haul routes or Cable Route Corridor connections serving each individual site.

For Sites 10A–10D, NCC requires a shared single access from Harvey Lane with internal haul routes between the parcels, while Site 10E should be accessed through CRC14.

NCC then reaches a clear overall conclusion. Although it records extensive discussions concerning Sites 7–10, it states that the current proposed transport strategy does not adequately address the significant highway constraints, does not provide sufficient mitigation and ‘cannot be supported’. It reiterates that all construction traffic should enter and leave by roads of an appropriate standard and that internal haul routes or Cable Route Corridors should then be used to reach the individual sites.

That position is consistent with, and builds upon, NCC’s November 2025 response to the targeted consultation. In that response, the highway authority said that it had significant concerns about the proposed access strategy and considered it unacceptable. It required access to be limited to appropriate roads, principally B roads, with internal haul routes used to serve individual sites.

The November 2025 response was specific. It stated that:

- construction traffic for the Site 1 infrastructure should be served from Station Road and use internal haul routes;
- development traffic should not use inappropriate roads;
- the authority would not accept a new access on the A140 for Site 2;
- the authority would not accept construction traffic using Hall Lane;
- the authority did not consider Fairstead Lane appropriate;
- and AIL traffic should use roads of an appropriate standard before transferring to internal haul routes.

The final application has not resolved those concerns. Hall Lane remains within the later Transport Assessment as an access route for CRC Compound 2 and within the anticipated AIL routeing. Fairstead Lane and The Krons have continued to form part of the evolving access discussion for Sites 7A–F. The final NCC Relevant Representation continues to reject the overall Sites 7–10 strategy and instead requires access through CRC8 and internal routes.

The history recorded in the Transport Assessment correspondence is particularly revealing. In July 2025 NCC identified Sites 7–9 as the principal highway concern and described Fairstead Lane as very narrow and difficult. In November 2025 the Applicant was still presenting an access strategy for Sites 7A–F based in part on

Fairstead Lane. In December 2025 NCC suggested that The Krons might be preferable on technical highway grounds. By January 2026 the Applicant had accepted routeing using The Krons in preference to the A140/Fairstead Lane route and said that this change would be cascaded through the application evidence.

This sequence demonstrates that the access strategy for the most constrained part of the Scheme remained in material flux shortly before submission. The question was not simply which signs or marshals should be used. It was which public-road corridor should serve the sites at all.

The current NCC position goes further again by requiring access through CRC8 west of Hempnall and internal connections to the individual parcels. That gives rise to a series of unresolved deliverability questions which the Applicant has not answered:

- Is the full route required by NCC contained within the Order Limits?
- Does the Applicant have all necessary land interests and powers?
- Has the route been designed as a construction haul road rather than merely as a cable corridor?
- Can it accommodate the forecast HGV numbers and vehicle dimensions?
- What crossings of roads, PRoWs, watercourses, hedgerows or ecological sites are required?
- Does it require HDD or other trenchless works?
- Has the full environmental effect of that route been assessed?
- Can it be implemented without changing the assessed layout or requiring additional land?
- Can it be delivered in time to support the Applicant’s 24-month construction programme?

These questions are particularly material because the earlier consultation record shows that internal access options were constrained by Hempnall Beck, a County Wildlife Site and other ecological considerations, with HDD likely to be required in some locations. An internal route demanded by the highway authority cannot be assumed to be environmentally or technically available merely because it would reduce use of public roads.

The Applicant therefore faces a fundamental dilemma. If it continues to rely on the submitted public-road strategy, it proceeds contrary to the express position of the local highway authority. If it adopts NCC’s required internal-haul-route architecture, it must demonstrate that the alternative lies within the DCO envelope, is supported by the necessary land and powers, is technically feasible, has been environmentally assessed and does not require a material change to the application.

That is not a minor refinement issue. It concerns the physical route by which entire sections of the Scheme would be constructed.

The Applicant’s Chapter 11 assessment cannot simply be treated as precautionary because it assumes a high traffic case. A worst-case traffic number does not cure assessment of the wrong route. Nor does a conclusion that percentage effects are not significant establish that the route is accepted by the highway authority or physically deliverable.

The Applicant does not merely face requests for minor refinement. The local highway authority requires a materially different access architecture from that presented and assessed by the Applicant. Until the Applicant demonstrates that the required alternative is available, lawful, environmentally acceptable, within its land and DCO powers and capable of supporting the construction programme, the Scheme is not shown to be deliverable.

11.4 The alternative strategy required by NCC has not been demonstrated to be available or environmentally feasible

NCC’s rejection of the submitted strategy is not, by itself, the end of the analysis. The decisive deliverability question is whether the alternative strategy required by the highway authority is actually available within the Scheme for which development consent has been sought.

The Applicant cannot answer NCC’s objection simply by stating that routes will be refined in the final CTMP. NCC’s preferred solution depends on substantially increased use of Cable Route Corridors and internal haul routes. That may require different physical works, different land, additional crossings and a different balance of environmental effects from the public-road strategy assessed in Chapter 11.

For each NCC-required route, the Applicant must demonstrate:

- the precise alignment of the internal haul route;
- that the alignment lies wholly within the Order Limits;
- that the Applicant possesses or seeks the necessary land and rights;
- that it has been designed for the relevant HGV and construction traffic;
- that it can operate in conjunction with cable installation;
- that all road, watercourse and PRoW crossings are identified;
- that the necessary crossing technique is feasible;
- that drainage and structural requirements have been assessed;
- and that the environmental effects of the route are already within the submitted ES.

Those matters have not been brought together in the application.

Sites 1–2

NCC’s preferred arrangement requires a single Station Road access followed by internal haul routes through CRC2 and CRC3, with crossing facilities at Lodge Road and Frith Way and HDD beneath the A140.

That is materially different from the Applicant’s assessed direct A140 accesses for Sites 2A–2C. The Applicant must therefore demonstrate that CRC2 and CRC3 have been designed and assessed not merely as cable corridors but as construction haul routes capable of carrying the full Site 2 traffic.

It must also show:

- the proposed road-crossing arrangements at Lodge Road and Frith Way;
- how cable works and construction traffic would be coordinated;
- whether the internal route would require temporary surfacing or widening;
- whether it affects hedgerows, drainage features or private accesses;
- and whether all necessary works and rights are included within the application.

The fact that a Cable Route Corridor passes between locations does not establish that it is capable of functioning as an HGV haul road.

Sites 3–6

NCC's preferred strategy would connect Sites 3A and 3B through Site 5B and CRC5/CRC6 or through a new Alburgh Road access linked to CRC6. Sites 5A and 5B should have one B1527 access and be connected internally. Site 4B should similarly be rationalised to a single B1527 access or CRC6.

This would concentrate a substantial amount of construction traffic within a linked internal system centred on CRC5 and CRC6. The Applicant must demonstrate that those corridors can safely and practically perform that function while also accommodating their primary cable-route purpose.

The necessary evidence includes:

- internal haul-road widths and construction;
- crossing details;
- construction sequencing;
- drainage;
- interaction with Site 5 infrastructure;
- PRoW management;
- soil and agricultural effects;
- ecological constraints;
- and whether the single B1527 access has capacity for the consolidated traffic.

Without that evidence, the NCC alternative cannot be assumed to be a straightforward substitution for the multiple accesses assessed by the Applicant.

Sites 7–9 as the principal test of deliverability

The most important example is NCC's requirement that Sites 7A–7K, Sites 8A–8B and Site 9 should all be reached through CRC8 west of Hempnall, followed by internal haul routes or Cable Route Corridor connections to the individual parcels.

The Applicant's submitted strategy is not based on such a consolidated route. It distributes traffic over several distinct rural corridors:

- The Krons and Fairstead Lane for Sites 7A–7F;
- Shotesham Road, Woodton Road, Fylands Road and Bussey's Loke for Sites 7G–7L;
- Heath Road, Baxter's Lane and Market Lane for Sites 8A–8B;

- and Littlebeck Lane for Site 9.

The alternative required by NCC therefore appears to involve a much more extensive internal construction route than the one assessed in Chapter 11. It would have to connect widely separated development parcels north of the B1527 while avoiding or crossing public roads, PRoWs, watercourses, hedgerows, ecological receptors and drainage features.

The consultation record shows that internalisation was not previously treated as unconstrained. During route discussions, alternatives were affected by the presence of Hempnall Beck, ecological interests and the likely need for trenchless crossing techniques. The access discussion moved between Fairstead Lane, an alternative from the B1527, The Krons and internal-haul-route options.

That history matters. It demonstrates that the present conflict is not simply a failure to draw an obvious internal road. The available alternatives may move the problem from highway safety into water, ecology, land, drainage and engineering feasibility.

The Applicant must therefore provide a complete plan showing how the CRC8 strategy reaches:

- Sites 7A–7F;
- Sites 7G–7L;
- Sites 8A and 8B;
- and Site 9.

For every part of that route, the Applicant should identify:

- whether the route is already shown as an internal haul road in the application;
- whether it is only shown as a cable corridor;
- the proposed construction width and surfacing;
- each public-road crossing;
- each PRoW crossing;
- each watercourse or ditch crossing;
- each hedgerow opening;
- each protected or priority habitat interaction;
- the drainage design;
- land ownership and rights;
- and the environmental document in which its effects have been assessed.

The need for this evidence is reinforced by NCC’s wider findings. Its June Relevant Representation states that HDD is required beneath all affected A and B roads. It also records the LLFA’s conclusion that the application is incomplete because of inconsistencies and limited information and does not yet demonstrate that changes in surface-water runoff can be managed without increasing flood risk. A new or intensified internal haul route would create compacted or impermeable surfaces and cannot be presumed to have no drainage consequences.

The potential PRoW consequences are also substantial. Chapter 11 confirms that Boudicca Way is adjacent to Site 7A on Fairstead Lane and interacts with the

Cable Route Corridor. A consolidated internal route across the wider Sites 7–9 group may reduce traffic on some public lanes but increase construction interaction with PRoWs, promoted routes and open countryside elsewhere. Those effects must be assessed, not assumed away.

ISH1 has subsequently exposed a further infrastructure constraint within this routeing problem. The ExA issued a specific action concerning the proposed haul-road crossing of the high-pressure gas transmission pipeline at Site 7. That issue must be resolved as part of the access solution itself. A haul route cannot be assumed to be available merely because an indicative alignment exists across the Order Limits: the Applicant must demonstrate that the crossing can safely carry the relevant construction vehicles, can satisfy the pipeline operator's protection requirements, and can be engineered without introducing materially different land, drainage, ecological or programme consequences.

Sites 10A–10E

NCC requires Sites 10A–10D to share a single Harvey Lane access, with internal routes between the parcels, and Site 10E to be served through CRC14.

The Applicant's submitted strategy uses three accesses and includes continued use of Seething Road for access A65. A single-access arrangement would therefore concentrate the traffic currently distributed between several access points and require additional internal connections.

The Applicant must demonstrate:

- that the Harvey Lane access can accommodate the combined traffic for Sites 10A–10D;
- that the internal haul roads between the parcels have been designed;
- whether road or PRoW crossings are required;
- whether the route passes through land used for solar panels, mitigation or cable works;
- whether the construction sequencing allows those internal routes to remain available;
- and whether CRC14 can physically carry the construction traffic for Site 10E.

It is not sufficient to say that internal routes will be finalised after contractor appointment. The physical ability to reach each site must be established before consent.

Future redesign cannot be treated as ordinary mitigation

The central distinction is between refinement and redesign.

Refinement might include:

- final sign locations;
- marshal positions;
- delivery booking arrangements;
- or the precise operating hours of a route already assessed and accepted.

Redesign includes:

- changing the public-road approach;
- removing or adding access points;
- constructing a new internal haul route;
- introducing new road or watercourse crossings;
- widening a Cable Route Corridor for HGV use;
- acquiring additional land;
- or transferring impacts to previously unaffected ecological, heritage or hydrological receptors.

NCC's preferred strategy appears capable of involving the latter. If the acceptable access solution depends on a different haul-route alignment, new crossings, additional land or materially different environmental effects, it is a change to the physical scheme, not merely the later management of the submitted scheme.

The Examination must therefore establish whether NCC's required strategy:

1. lies wholly within the submitted Order Limits;
2. is authorised by the Works Plans and draft DCO;
3. is supported by the necessary compulsory-acquisition or temporary-possession powers;
4. has been included in the Book of Reference where appropriate;
5. is environmentally assessed;
6. can be constructed without unacceptable effects;
7. and can support the Applicant's construction programme.

Until that exercise is completed, there is an unresolved risk that the submitted routes are unacceptable while the alternative routes are unavailable, unassessed or outside the current DCO envelope.

BEPS therefore requests a route-by-route feasibility matrix covering every site and major work. It should identify the submitted route, NCC's required route, all public and internal links, necessary land and powers, vehicle specifications, required engineering, road and watercourse crossings, PRoW interactions, ecological and heritage constraints, drainage requirements, status of highway-authority agreement, and the consequence if the route cannot be used.

Without such evidence, the Applicant has not shown that NCC's objection can be resolved within the submitted scheme.

11.5 Hall Lane demonstrates that highway objections remain unresolved in the final application

Hall Lane provides the clearest documentary example of the failure to resolve highway-authority objections before submission.

In its November 2025 targeted-consultation response, NCC stated expressly that it would not accept construction traffic using Hall Lane. It required the relevant area to be served through an internal haul route rather than by construction traffic on the lane.

The Applicant nevertheless retained Hall Lane in the final Transport Assessment.

The Transport Assessment identifies ‘Compound 2: Hall Lane’, served through access A14. The route is described as travelling from Ipswich Road east along Hall Lane and then south into access A14. The anticipated AIL route to the same compound also includes Hall Lane.

Hall Lane is therefore not an historic consultation issue overtaken by later design evolution. It is an unresolved conflict between the final submitted transport strategy and the highway authority’s stated requirements.

The significance of that conflict is greater than the number of vehicles assigned to the route. It demonstrates that the Applicant submitted its DCO application while retaining a construction and abnormal-load route which the local highway authority had already rejected.

That gives rise to two alternatives, neither of which has been adequately addressed.

First, Hall Lane may be indispensable to access CRC Compound 2 or to deliver the abnormal components assigned to that compound. If so, that part of the Scheme depends on a route which NCC has said it will not accept.

Second, Hall Lane may not be indispensable. If so, the Applicant must identify the substitute route and demonstrate:

- where it lies;
- whether it is within the Order Limits;
- whether the Applicant controls the land;
- whether it has been assessed;
- what highway or internal-haul-route works it requires;
- whether it creates different ecological, drainage, heritage or residential effects;
- and whether it can accommodate the relevant AIL.

The Applicant cannot leave both possibilities open until the final CTMP. The substitute route may not be a management detail. It may require a new access, internal haul route, road crossing, temporary rights or environmental assessment.

The AIL dimension makes the issue especially serious. An ordinary construction delivery might, in some circumstances, be transferred to a smaller vehicle or an alternative access. An abnormal load may be determined by the indivisible dimensions and weight of the equipment. If Hall Lane cannot be used, the Applicant must demonstrate that the relevant component can physically reach its destination by another route.

National Highways’ Relevant Representation confirms that the wider AIL strategy remains unresolved. It records that the Applicant has not yet determined the AIL routes, that some SRN routes are constrained, and that an acceptable strategy should be established in principle before the DCO decision. The continuing inclusion of Hall Lane therefore forms part of a broader failure to establish an end-to-end AIL delivery solution.

The Hall Lane issue should be resolved through an express written position from NCC. The Applicant should be required either:

- to remove Hall Lane from all construction and AIL routeing and provide a fully assessed substitute; or
- to obtain NCC's written agreement that a defined and limited use is acceptable, supported by complete technical evidence.

Unless one of those outcomes is achieved, the relevant compound and associated works are not shown to be deliverable.

11.6 Sites 7–10 are not shown to have a deliverable access solution

Sites 7–10 are the clearest geographical expression of the Scheme's transport problem. They are distributed north and east of the B1527 across a network of narrow rural roads and lanes, while NCC's final position is that the submitted strategy does not adequately address the highway constraints and cannot be supported.

The unresolved issue is not confined to the level of traffic on any one road. It concerns the absence of an agreed physical routeing system for a substantial part of the Scheme.

11.6.1 Fairstead Lane

Fairstead Lane was central to the Applicant's earlier strategy for Sites 7A–7F and remains part of the route described in the submitted Chapter 11.

Chapter 11 routes vehicles from the A140 to Site 4A, where they would wait for call-forward, before travelling east along the B1527, north along The Krons, west along Fairstead Lane and then into the Sites 7A–7F accesses.

The Applicant's own baseline describes Fairstead Lane as a single-track road with overhanging trees and potentially challenging two-way vehicle movement. NCC's consultation record similarly identifies it as very narrow and raises concerns about carriageway width, visibility and the junction with the A140. The targeted-consultation response ultimately stated that Fairstead Lane was not appropriate and that the relevant construction traffic should be served through a haul route from the B1527.

Chapter 11 predicts that traffic on the western part of Fairstead Lane would increase from a future baseline AADT of 86 vehicles to 186 vehicles during peak construction, an increase of 116%. It categorises the severance impact as high.

The Applicant then concludes that the effect on non-motorised-user amenity is negligible and not significant because construction would be staggered and existing pedestrian and cyclist activity is said to be low. That reasoning is not persuasive.

First, the 116% increase is the Applicant's own assessed reasonable worst case. It cannot be dismissed by assuming that the construction programme will operate more favourably when the detailed programme is not fixed.

Second, the claim of low pedestrian and cyclist activity does not address the road's function as part of Boudicca Way. Chapter 11 identifies Boudicca Way as a 58 km long-distance trail between Norwich and Diss, adjacent to Site 7A on Fairstead Lane and interacting with the Cable Route Corridor. NCC's November response said that the trail would be closed for a considerable period, that likely diversion arrangements could result in the loss of a loop through Tasburgh, and that a clear assessment and mitigation plan were required.

Third, the Applicant's own response depends on exceptional operational controls. Vehicles are to wait at Site 4A and be called forward. The technical work proposes one-at-a-time HGV release, with traffic marshals and stop arrangements to manage conflicts. Those measures do not demonstrate that Fairstead Lane is suitable. They show that ordinary two-way construction operation is not considered workable.

The Applicant's own technical analysis also identified materially increased probabilities of vehicle conflict on Fairstead Lane, with particularly high probabilities in the peak periods under the modelled scenarios. The mitigation response was to rely on single-vehicle release and the possible provision of a passing place.

That gives rise to further unresolved matters:

- the final location and dimensions of any passing place;
- whether it lies within the highway boundary;
- whether third-party land is required;
- whether vegetation or hedgerow removal is necessary;
- whether drainage can be provided;
- and whether the intervention is acceptable within the sensitive historic and landscape setting.

The final NCC Relevant Representation does not endorse this Fairstead Lane solution. It requires Sites 7–9 to be served through CRC8 and internal connections and says the current strategy cannot be supported.

Fairstead Lane therefore cannot be treated as an agreed fall-back route. Its continued presence in the submitted assessment illustrates the gap between the Applicant's traffic modelling and the highway authority's deliverability requirements.

The independent heritage report has also identified heritage harm to two Listed buildings in widening Fairstead Lane at the junction with the A140.

11.6.2 The Krons

The Krons emerged as a preferred alternative relatively late in the pre-application process.

The meeting record shows that NCC raised concerns about the proposed A140/Fairstead Lane access and suggested an alternative route through the B1527, The Krons and Fairstead Lane. By January 2026 the Applicant had accepted use of The Krons in preference to the earlier A140/Fairstead Lane approach and stated that the change would be cascaded through the application documents.

Chapter 11 consequently routes Sites 7A–7F along the B1527, The Krons and Fairstead Lane.

The Krons is not, however, established as an unconstrained route. The Applicant's baseline describes it as single carriageway and single track at points, with varying widths, overhanging trees and two bridges over minor water passages.

The consultation record raises additional issues:

- the accepted structural capacity of the bridge or bridges needed confirmation;
- vehicle clearance of approximately 5.2 metres was discussed;
- overhanging trees and vegetation may require works;
- passing opportunities may need to be improved;
- highway-boundary information was important;
- and works outside the highway boundary might require additional land and consultation.

These matters are not cosmetic. If the route requires pruning, vegetation removal, verge works, widening or passing places, the Applicant must show that those works are:

- physically possible;
- within the highway boundary or Order Limits;
- supported by the necessary rights;
- included within the assessed scheme;
- and acceptable in arboricultural, ecological, landscape and drainage terms.

NCC's June 2026 position demonstrates that the The Krons solution did not resolve the wider issue. Rather than endorsing The Krons as the final access route, NCC now requires all of Sites 7–9 to be accessed through CRC8 and internal connections.

The Krons must therefore be treated as another proposed route that formed part of the evolving Applicant strategy but has not obtained final highway-authority support. It cannot be relied upon as evidence that Sites 7A–7F have a settled access solution.

The Krons has also now become an express Examination issue. ISH1 resulted in a specific action concerning this route. That development reinforces BEPS's existing point: The Krons cannot be treated merely as a settled replacement for the earlier Fairstead Lane approach. Its physical constraints, necessary vegetation and highway works, bridge or water-passage constraints, land

requirements and relationship to NCC's preferred internal-haul strategy require resolution before it can be relied upon as an essential construction route.

11.6.3 Internal access through CRC8

NCC's final preferred strategy is for Sites 7A–7K, Sites 8A–8B and Site 9 to be accessed through CRC8 west of Hempnall, with internal haul roads or Cable Route Corridor connections serving each site.

This has the attraction of reducing construction use of the most constrained public roads. But it has not been demonstrated as a complete and deliverable engineering solution.

The Applicant must first identify the precise location at which construction traffic would enter CRC8 and show the complete internal route to every site. A general reference to CRC8 is insufficient because the affected sites extend across a large area and are presently served through several different road corridors.

The Applicant must then establish whether CRC8 has been designed for dual use as:

1. a cable construction corridor; and
2. a sustained HGV haul route serving multiple solar development areas.

Those uses may impose different requirements. A construction haul road may require:

- greater width;
- load-bearing construction;
- drainage;
- turning areas;
- passing places;
- temporary compounds;
- road crossings;
- and maintenance throughout the construction programme.

The fact that the DCO seeks powers for cable works within a corridor does not automatically demonstrate that all necessary haul-road works are assessed or authorised.

The route is also likely to intersect or approach public roads, PRoWs, field boundaries, drainage ditches and watercourses. NCC requires HDD beneath all affected A and B roads. The Applicant must explain whether the construction haul route would itself cross those roads at grade, use separate haul-route crossing facilities, or depend on the sequence of the cable works.

Water and drainage effects are particularly important. NCC's LLFA says the application is incomplete and does not yet demonstrate that changes in surface-water runoff from the development can be managed without increased flood risk. A long compacted haul road through rural land cannot be assumed to be hydrologically neutral.

Ecological constraints must also be reconciled. The consultation record shows that possible internal routeing and B1527 approaches interacted with Hempnall Beck and ecological interests and that trenchless works were contemplated. If the route required by NCC crosses a County Wildlife Site, watercourse, important hedgerow or bat corridor, the associated effects must be assessed as part of the access solution.

There are also substantial PRoW implications. The wider Sites 7–9 area contains numerous footpaths and promoted recreational routes. Any route connecting the sites internally must identify every PRoW crossing and show how users would be protected without creating excessive closure, severance or diversion.

Finally, the Applicant must demonstrate that all necessary land and rights are within the current DCO application. If the complete CRC8 haul-route system requires land outside the Order Limits, wider passing places, new crossing land or works on third-party property, it may require a change to the application and further consultation.

Until those matters are answered, NCC's preferred route cannot simply be assumed to cure the defects in the submitted strategy. It remains an alternative whose technical, environmental and legal feasibility has not been demonstrated.

11.6.4 Sites 10A–10E

NCC's final position for Site 10 is similarly more consolidated than the Applicant's submitted strategy.

NCC requires Sites 10A–10D to use a single Harvey Lane access with internal haul routes between the parcels. Site 10E should be accessed through CRC14.

Chapter 11 instead identifies three accesses—A61, A62 and A65. Access A65 requires vehicles to continue east on Harvey Lane, turn north on Seething Road and then west into the site.

The NCC solution would remove or reduce some public-road access but would also concentrate traffic at one Harvey Lane junction and require a more extensive internal network. The Applicant must demonstrate:

- the capacity and geometry of the single Harvey Lane access;
- the combined daily and peak traffic assigned to it;
- the alignment of internal routes between Sites 10A–10D;
- whether those routes conflict with panels, mitigation areas, hedgerows or PRoWs;
- whether they require road crossings or additional land;
- how traffic would be managed while different parcels are constructed;
- and whether the route remains available throughout the proposed programme.

For Site 10E, the Applicant must show how CRC14 would function as a construction haul route and how that differs from the submitted A65 route through Seething Road. It must also identify the land, works and environmental effects associated with the substitute arrangement.

The Outline CTMP's use of Site 10C as a waiting or call-forward compound adds a further dependency. If Sites 10A–10D are served internally from a single access, the Applicant must show how the holding compound, internal routes and parcel construction sequence interact. A route cannot be described as deliverable without demonstrating that the compound and internal links will remain operational when required.

11.6.5 Conclusion on Sites 7–10

Sites 7–10 expose the underlying weakness of the transport case.

The Applicant assessed a dispersed public-road strategy using The Krons, Fairstead Lane, Shotesham Road, Woodton Road, Fylands Road, Bussey's Loke, Heath Road, Baxter's Lane, Market Lane, Littlebeck Lane, Harvey Lane and Seething Road. NCC does not support that strategy. It requires a different system based on CRC8, CRC14 and consolidated internal haul routes.

The Applicant has not yet demonstrated that NCC's alternative:

- is fully designed;
- is within the Order Limits;
- is supported by the necessary land powers;
- can be engineered across the affected landscape;
- avoids unacceptable ecological, hydrological, heritage and PRoW effects;
- and can support the construction programme.

The largest unresolved transport issue is therefore not the precise number of HGVs travelling on a particular day. It is the absence of an agreed and demonstrated physical access solution for an entire group of Scheme parcels. Until that solution is established, Sites 7–10—and therefore the Scheme as a whole—are not shown to be deliverable.

11.7 The local highway network is physically unsuited to the Applicant's proposed traffic

The Applicant's own baseline evidence demonstrates that much of the local highway network is physically ill-suited to the volume, size and operational demands of the proposed construction traffic. The difficulty is not confined to one or two isolated pinch points. It arises from the character of the network as a whole: narrow rural lanes, single-track sections, limited passing opportunities, weight restrictions, overhanging vegetation, bridges, water crossings, on-street parking, schools, residential frontage and flood-prone sections.

Chapter 11 acknowledges that the principal strategic routes are the A140, B1332 and B1527, but states that the remainder of the study area comprises rural roads with intermittent road markings and varying carriageway widths. The Applicant's own Table 11.7 then records a network whose physical characteristics are inconsistent with routine HGV use on the scale proposed.

Fairstead Lane is described as single-track, with overhanging trees and potentially challenging two-way vehicle movements. Lodge Road and Frith Way

are described as single-track with varying widths. Bussey's Loke and The Green are single-track, subject to a 7.5 tonne restriction except for loading, affected by overhanging trees and varying widths, and potentially challenging for two-way movements. Fylands Road is also single-track, with overhanging trees and limited passing provision.

The Applicant describes Shotesham Road, Woodton Road and Baxter's Lane as a combination of single carriageway and single-track road, with one-way access at some junctions, varying widths and potentially challenging two-way movements. Shotesham Road is subject to a 7.5 tonne restriction except for loading. Mill Lane and Norwich Road are likewise single-track, with Mill Lane subject to a 7.5 tonne restriction and affected by Shotesham Ford, where flooding may make the road inaccessible to vehicles.

The Krons is single-track at points, has varying widths and overhanging vegetation, and crosses two bridges over minor water passages. The Applicant notes that no weight-restriction signage was visible, but the absence of signage is not evidence that the structures are suitable for the proposed construction vehicles. It instead reinforces the need for structural verification before the route is relied upon.

The route through Hempnall and Saxlingham Nethergate also contains sensitive constraints. Chapter 11 records on-street parking in Hempnall, an overhanging building, narrow footways in places, and the presence of both Hempnall Primary School and Saxlingham Primary School along the route. These are precisely the conditions in which HGV traffic has a greater effect on pedestrian safety, delay, fear and intimidation, access to schools and residential amenity.

Hall Lane is described by the Applicant as suitable for two-way traffic, but the same baseline records that the road narrows at points, has overhanging trees and depends on some existing passing places. That description must be read together with NCC's express refusal to accept construction traffic on Hall Lane. The Applicant's own qualitative description cannot override the highway authority's position.

The baseline evidence also records exceptionally low traffic flows on many of the affected links. The 24-hour AADT figures include:

- Fairstead Lane west: 82 vehicles;
- Littlebeck Lane: 103 vehicles;
- Shotesham Road: 134 vehicles;
- The Green: 67 vehicles;
- Wash Lane: 67 vehicles;
- Bussey's Loke: 53 vehicles;
- Market Lane: 31 vehicles;
- Edge's Lane: 41 vehicles.

Those figures demonstrate that these are not ordinary distributor roads. They are quiet rural lanes with a limited existing transport function. The low baseline flows are evidence of rural sensitivity, local character and constrained capacity. They do not make a large increase environmentally insignificant.

The Applicant nevertheless repeatedly uses the low baseline as part of the reasoning for concluding that effects are not significant. Chapter 11 acknowledges a 116% increase on Fairstead Lane, a 58% increase on Shotesham Road, a 45% increase on Bussey's Loke and a 48% increase on Market Lane. It classifies the severance impact on Fairstead Lane as high, yet later concludes that non-motorised-user amenity effects are negligible because existing pedestrian and cyclist activity is said to be low and construction will be staggered.

That approach understates the real effect of construction traffic on a rural network. A road carrying 30, 50 or 80 vehicles a day may have low numerical traffic volumes because it is a minor lane serving dispersed homes, farms, walkers, cyclists and equestrians. Introducing repeated HGV movements into such a road changes its character and function to a much greater degree than the same increase on an established strategic route.

The Applicant's methodology itself recognises that local rural roads with restricted carriageway width, limited structural capacity, susceptibility to HGV wear and limited pavement provision are sensitive receptors. It also classifies conservation areas, listed buildings, residential areas, school routes and bus stops as sensitive. The network descriptions show that these sensitivities frequently occur together.

This is important because the transport case is not simply about theoretical traffic capacity. The physical form of these roads determines whether HGVs can pass safely, whether pedestrians have refuge, whether equestrians can avoid approaching vehicles, whether vehicles can turn without overrunning verges, whether visibility splays can be achieved without vegetation removal, and whether the route remains available in flood conditions.

The Shotesham Ford illustrates this point clearly. The Applicant records that flooding may make the route inaccessible. A route whose availability is weather-dependent cannot safely be treated as a reliable element of a tightly programmed construction strategy unless there is a fully assessed alternative route and contingency plan.

The same applies to bridges and weight-restricted roads. A route may be shown on a traffic plan, but that does not prove that every bridge, culvert, verge, carriageway edge and junction can accommodate the dimensions and axle loads of the proposed vehicles. Nor does a 'loading exemption' to a weight restriction establish that routine scheme traffic is acceptable in planning or highway-safety terms.

The Applicant's baseline therefore supports the opposite conclusion from the one ultimately reached in Chapter 11. The local highway network is not a neutral receptor capable of absorbing scheme traffic with limited management. It is a principal physical constraint on the delivery of the Scheme.

The low baseline flows are evidence of rural sensitivity and limited traffic function. They do not make a large increase environmentally insignificant. When those low flows are combined with single-track geometry, limited passing opportunities, weight restrictions, schools, residential frontage, bridges, flooding

and overhanging vegetation, the result is a network whose suitability for the Applicant's proposed traffic has not been demonstrated.

11.8 The proposed mitigation is evidence of constraint, not proof of suitability

The Applicant relies heavily on traffic-management measures to conclude that the effects of construction traffic will be acceptable. Those measures include call-forward systems, holding areas, one-HGV-at-a-time release, traffic marshals, banksmen, stop boards, temporary signals, vehicle-length restrictions, passing places, temporary speed limits, restricted delivery hours and left-in/left-out arrangements.

Properly understood, those measures do not demonstrate that the routes are suitable. They demonstrate that the Applicant itself recognises that ordinary construction traffic movements cannot safely or reliably operate on parts of the network without intensive intervention.

11.8.1 Call-forward systems and holding areas

The proposed strategy uses construction compounds and holding areas to prevent vehicles arriving uncontrolled at constrained routes. Vehicles would wait at compounds and be released only when the route ahead is considered clear.

For Sites 7A–7F, the Applicant proposes use of Site 4A as a holding area before vehicles travel towards The Krons and Fairstead Lane. The consultation record and technical work describe a call-forward system in which vehicles would be released individually under marshal control.

This arrangement creates a series of dependencies:

- the holding area must be available before deliveries begin;
- it must have sufficient physical capacity;
- it must remain accessible throughout the construction programme;
- communications must operate reliably;
- suppliers must comply with booking and release procedures;
- and the route must remain clear once a vehicle is dispatched.

The Applicant has not demonstrated the operational resilience of that system. If the holding compound is itself under construction, occupied by plant, unavailable because of phasing, or unable to accommodate delayed vehicles, the routeing strategy may fail.

11.8.2 One-HGV-at-a-time release

The Applicant's proposal to release HGVs one at a time is particularly revealing. That measure is only necessary because the route cannot reliably accommodate two-way HGV movements.

The technical work for Fairstead Lane identifies materially increased probabilities of vehicle conflict and proposes single-vehicle release as mitigation. The same

general approach appears in the discussions of constrained routes serving Sites 7–9.

A one-at-a-time system is not equivalent to a route with sufficient physical capacity. It reduces risk by suppressing the number of vehicles permitted to use the route simultaneously. It therefore also limits route throughput.

That creates a direct deliverability question. The Applicant proposes a 24-month construction programme with multiple active sites, restricted HGV delivery hours and substantial daily traffic. If one-at-a-time release is necessary across several routes, the Applicant must show that the available route capacity is sufficient to deliver the forecast material volumes within the programme.

No programme-linked logistics model has been produced demonstrating:

- the maximum number of vehicles that can be released per hour;
- travel and turnaround times;
- queuing and delay assumptions;
- the effect of agricultural or public traffic;
- the consequences of a vehicle breakdown;
- the effect of roadworks or weather;
- and the interaction between simultaneous work fronts.

Without that evidence, one-at-a-time release may reduce risk only by rendering the assumed construction rate unachievable.

11.8.3 Marshals, banksmen and stop boards

The Applicant also relies on traffic marshals, banksmen and stop boards to control movements at narrow sections, crossings and accesses.

Those measures may be appropriate at a defined worksite or a short, controlled crossing. They are less persuasive where they are needed to compensate for the basic geometry of a public road over an extended construction period.

The dependence on manual control creates questions that remain unanswered:

- how many marshals will be required;
- where they will stand;
- whether those locations are safe;
- whether they lie within land controlled by the Applicant;
- whether communication is continuous;
- what happens outside normal hours;
- how emergency vehicles are prioritised;
- and how public traffic is managed where there is no alternative route.

The use of stop boards and marshals also does not create physical passing space. It can only hold one vehicle while another passes through a constrained section. The approach therefore depends on adequate waiting positions at both ends and on public-road users complying with the control.

11.8.4 Temporary traffic signals

Temporary signals may be used at crossings, narrow sections or works areas. Again, that may reduce conflict, but it introduces additional delay, queuing and operational dependency.

On quiet rural lanes, temporary signals may require vehicles to queue where there is limited carriageway width or residential frontage. At more heavily trafficked junctions, they may affect wider network operation. The Applicant has not provided a consolidated schedule identifying where temporary signals will be required, for how long, or how simultaneous controls across the network would interact.

11.8.5 Vehicle-length restrictions

The consultation record refers to the possible restriction of some construction vehicles to 10-metre rigid HGVs or 12-metre drawbar combinations ‘where practicable’.

The words ‘where practicable’ are significant. The Scheme includes loads and equipment whose dimensions may not be capable of being reduced to suit the road. The Applicant must identify:

- which routes require vehicle-length restrictions;
- which materials can be delivered in compliant vehicles;
- which cannot;
- whether smaller vehicles would increase the total number of trips;
- and how abnormal or indivisible loads would be dealt with.

A vehicle-length restriction may make one route safer while materially increasing traffic numbers or making delivery of particular components impossible.

11.8.6 Passing places

Passing places are repeatedly contemplated as mitigation on constrained rural roads. NCC’s discussions indicate that passing places might need to be approximately 20 metres long, 5.5 metres wide and spaced around 250 metres apart, subject to visibility.

But the Applicant has not fixed their locations or demonstrated that the necessary land is available. A passing place is not merely a traffic-management measure. It is a physical highway intervention that may require:

- additional land;
- verge removal;
- tree or hedge works;
- drainage;
- excavation and surfacing;
- utility diversions;
- reinstatement;
- and highway approval.

The Applicant cannot rely on passing places as mitigation without identifying and securing them.

11.8.7 Temporary speed limits

Temporary speed reductions are also proposed or discussed. They may reduce stopping distances or visibility-splay requirements, but they do not widen the carriageway or eliminate blind bends, bridges or weight restrictions.

A temporary speed limit also requires legal and physical implementation, including consultation, traffic regulation, signage, enforcement and maintenance. Its availability cannot be assumed without agreement from the relevant authority.

11.8.8 Restricted delivery hours

HGV deliveries are proposed principally between 09:30 and 16:30. This is intended to avoid network peak hours and school-sensitive periods.

The restriction may reduce some impacts, but it compresses the daily delivery programme into a limited window. That makes the Scheme even more dependent on route capacity, holding areas, call-forward systems and uninterrupted operation.

If vehicles are released one at a time and must complete long rural routes within that period, the Applicant must demonstrate that the required daily delivery volumes can still be achieved. Otherwise, the mitigation used to make traffic effects acceptable may undermine the construction programme.

11.8.9 Left-in/left-out arrangements

Left-in/left-out controls may reduce difficult turning movements at certain accesses. They may also require vehicles to travel additional distance to turn at roundabouts or other junctions, redistributing traffic to parts of the network not otherwise affected.

The Applicant must therefore assess the complete route consequences of such controls rather than treating the access movement in isolation.

11.8.10 Mitigation cannot convert an unacceptable route into an acceptable one

The strategic distinction is clear.

These measures may reduce risk on an otherwise usable route. They do not prove that a route rejected by the highway authority becomes acceptable. Nor do they establish that the physical works required for the mitigation are available, environmentally assessed and secured.

That distinction is particularly important in relation to Hall Lane and the Sites 7–10 routeing. NCC has not said merely that additional marshals or signs are needed. It has said that the submitted strategy cannot be supported and that a different access architecture based on appropriate-standard roads and internal haul routes is required.

The Applicant cannot answer that objection by adding further operational controls to the same rejected roads.

The proposed mitigation also lacks demonstrated resilience. The Examination should require the Applicant to explain what happens if:

- a passing place cannot be acquired;
- vegetation clearance is not agreed;
- a bridge cannot carry the required load;
- a holding compound is unavailable;
- communications fail;
- a marshal-controlled route is obstructed;
- a temporary speed limit is not approved;
- an emergency requires immediate access;
- agricultural traffic cannot be delayed;
- or construction programme pressures require simultaneous deliveries.

If the transport strategy depends upon every control functioning perfectly, with no alternative route or operational margin, it is not a robust deliverability case.

The mitigation package therefore proves constraint, not suitability. It may form part of a final solution once an acceptable route is identified, designed and secured. It cannot substitute for proof that such a route exists.

11.9 The Applicant has not demonstrated the necessary highway land and works

The transport assessment repeatedly treats route feasibility as though it were established by indicative access drawings, visibility splays and swept-path analysis. That is insufficient. A drawing may show that a modelled vehicle could negotiate a junction or bend under assumed conditions. It does not prove that the Applicant owns or controls the affected land, possesses the necessary DCO powers, can carry out the required highway and vegetation works, or has assessed and secured the environmental consequences of making the route physically usable.

For a project whose construction depends upon 65 access and crossing points, this is not a secondary detail. The land, works and legal powers required at each access form part of the practical means by which the authorised development could be implemented. Unless they are identified, assessed and secured, the Applicant has not demonstrated a deliverable route network.

11.9.1 Highway boundaries remain a fundamental uncertainty

Norfolk County Council repeatedly requested highway-boundary information during the pre-application discussions. Its November 2025 targeted-consultation response stated that proposed highway works and route changes required detailed schemes including highway-boundary information, and that the information then provided was inadequate or inappropriate in several locations.

The highway boundary is critical because the physical space between roadside hedges, ditches, banks or fences is not necessarily all public highway. Verges, trees and visibility areas may belong to adjacent landowners. Without an accurate boundary plan, it is not possible to establish whether:

- an access can be widened within highway land;
- a passing place can be provided;
- a visibility splay can be kept clear;
- an AIL can oversail or overrun without entering private land;
- trees or hedges can lawfully be removed;
- temporary signs or traffic-control infrastructure can be installed;
- or additional permanent or temporary rights are required.

The Applicant should therefore provide a route-by-route highway-boundary reconciliation. It should identify every place where the proposed swept path, visibility splay, passing place, overrun area, highway widening or vegetation-clearance zone extends beyond the confirmed highway boundary.

The absence of such evidence is particularly serious where the Applicant relies on later detailed design. A later CTMP cannot enlarge the Order Limits, create new compulsory-acquisition powers or confer rights over land not controlled by the Applicant.

11.9.2 Passing places have not been fixed or secured

Passing places form a material part of the mitigation contemplated for the most constrained rural lanes. During consultation, NCC indicated that suitable passing places might need to be approximately 20 metres long, 5.5 metres wide and spaced at intervals of around 250 metres, subject to visibility and site-specific conditions. The selection and site inspection of potential locations remained outstanding.

A passing place is not merely an operational traffic-management measure. It is a physical highway intervention. It may require:

- land beyond the existing carriageway or highway boundary;
- removal of hedgerows, trees, banks or verge habitat;
- excavation, surfacing and structural construction;
- drainage and attenuation;
- relocation of utilities or street furniture;
- road-safety audit and technical approval;
- temporary or permanent land rights;
- and later reinstatement.

The Applicant has not provided a final schedule identifying the location, dimensions, ownership, DCO plot, environmental effects and approval status of each passing place relied upon. Nor has it demonstrated that the necessary land is within the Order Limits or subject to sufficient acquisition or temporary-possession powers.

That omission matters because the Applicant's route strategy, including one-at-a-time HGV release, assumes that vehicles can be held or passed at safe locations. If a required passing place cannot be constructed because the land is unavailable or the environmental effects are unacceptable, the assumed route capacity and safety controls may fail.

11.9.3 Visibility splays are not merely lines on a plan

The targeted consultation added small areas of land for updated highway visibility splays. It also added land to accommodate AIL-related highway works, temporary removal of street furniture and vegetation removal.

That does not establish that every necessary visibility splay is achievable. The Applicant must identify for each access:

- the design speed used;
- the required visibility distance;
- the full extent of the splay;
- whether it lies within highway land or the Order Limits;
- the ownership of affected land;
- the trees, hedges, banks or structures requiring removal;
- the duration for which the splay must be maintained;
- and the environmental effects of keeping it clear.

Where a reduced visibility requirement depends on a temporary speed limit, the Applicant must also demonstrate that the speed restriction is capable of being lawfully implemented and maintained. A reduced design speed cannot simply be assumed in order to make an otherwise inadequate access appear feasible.

The application also needs to distinguish between temporary construction visibility and any visibility required throughout operation, replacement and decommissioning. If accesses are to be retained and reused over the 60-year life of the Scheme, vegetation management and land-control requirements may likewise persist.

11.9.4 Vegetation and tree works have not been quantified

NCC's June 2026 Relevant Representation identifies a material omission in the Applicant's arboricultural evidence. NCC states that the Preliminary Arboricultural Impact Assessment does not appear to consider visibility splays, AILs or highway works required to accommodate increased vehicle movements. It also records that there is no schedule quantifying the tree works required for visibility or highway improvement and warns that the impacts of tree works and removal on narrow rural roads could be significant and unacceptable.

NCC further states that where works are proposed to trees or hedges not controlled by the project, the Applicant must demonstrate that the owners are able to accommodate the works and that adequate mitigation is provided.

This evidence directly undermines any suggestion that roadside clearance is a minor detail already encompassed within general vegetation-management powers. The routes affected include narrow rural lanes where trees, hedges, banks and verges are integral to:

- landscape character;
- conservation-area appearance;
- ecological connectivity;
- bat commuting routes;
- nesting-bird habitat;
- Roadside Nature Reserves;
- drainage function;
- and the physical enclosure of historic lanes.

The targeted consultation itself acknowledged that AIL and highway works could require vegetation removal. Yet the application does not provide a comprehensive schedule identifying what is to be removed, pruned or managed at each access and along each route.

Without that schedule, the environmental assessment cannot reliably establish the extent of arboricultural, ecological, heritage and landscape harm arising from the transport strategy.

11.9.5 Oversailing and overrun require land rights and physical capacity

Swept-path assessments commonly distinguish between the wheel path and the vehicle body envelope. A vehicle may technically negotiate a turn only because its body oversails a verge, bank or adjoining land, or because its wheels overrun an area outside the normal carriageway.

Those assumptions must be examined as matters of law and engineering, not merely geometry.

For every oversail or overrun point, the Applicant should identify:

- the affected land;
- whether it is public highway or privately owned;
- whether it lies within the Order Limits;
- the land right or DCO power relied upon;
- the strength and construction of the surface;
- whether walls, banks, ditches, trees, signs or utilities are affected;
- any temporary protection or strengthening works;
- and the reinstatement required.

An articulated vehicle shown turning across an indicative plan does not establish that the Applicant has a lawful right to use the entire vehicle envelope or that the affected land can carry the load.

This is especially important for AILs, whose axle weights, turning radii and body envelopes may be substantially greater than those of an ordinary HGV.

11.9.6 Temporary speed limits and traffic-control infrastructure are not secured by assumption

The consultation record refers to possible temporary speed restrictions, including a 40 mph limit, as a means of reducing visibility-splay requirements and improving safety on constrained routes.

A temporary speed limit requires a lawful traffic-regulation process, appropriate consultation, signs, terminal points, repeaters where necessary, maintenance and enforcement. The Applicant should identify:

- each route on which the assessment depends on a reduced speed;
- the proposed legal mechanism;
- the approving authority;
- the sign locations;
- the land required;
- the period of operation;
- and the consequence if the restriction is not approved.

The same applies to temporary traffic signals, stop boards and marshal positions. These controls require physical space and safe operating locations. They cannot be treated as abstract mitigation without identifying where and how they would operate.

11.9.7 Highway widening, verge works and drainage have not been fully reconciled

The Applicant contemplates access widening, passing places, local highway improvements and temporary works to accommodate construction and abnormal-load traffic. Those works can increase impermeable or compacted surface area and alter roadside drainage.

NCC’s November 2025 LLFA comments expressly identified the need for additional surface-water management where road widening or internal access tracks increase impermeable area. It requested further information in relation to several of the targeted-consultation highway areas.

NCC’s June 2026 Relevant Representation similarly records that the LLFA regards the application as incomplete and does not consider that the Applicant has yet demonstrated that changes in surface-water runoff can be managed without increasing flood risk on or off site.

The Applicant must therefore demonstrate for every widened access, passing place, temporary hardstanding and verge intervention:

- the resulting impermeable or compacted area;
- the drainage design;
- the outfall;

- the attenuation required;
- the affected ditch or watercourse;
- and the land needed for drainage infrastructure.

A highway intervention cannot be regarded as deliverable if there is no space or lawful discharge point for the drainage it creates.

11.9.8 Bridges, culverts and water crossings require route-specific structural evidence

The Applicant's baseline identifies bridge and water-crossing constraints on the local network. The Krons crosses two bridges over minor water passages and has varying widths and overhanging trees. Mill Lane includes Shotesham Ford, which may become inaccessible during flooding.

The absence of a signed weight restriction does not establish that a bridge or culvert can safely carry the Applicant's HGVs or AILs. The Applicant must provide route-specific structural evidence for every bridge, culvert and crossing on the proposed construction and abnormal-load routes.

Where strengthening, protection or temporary works are required, the Applicant should identify:

- the structure affected;
- the assessed vehicle and axle load;
- the proposed works;
- the land and access required;
- the relevant Work No. and DCO power;
- the environmental permits or watercourse consents required;
- the highway-authority approval;
- and the programme implications.

If a bridge is found incapable of carrying the relevant load, an alternative route may be necessary. That alternative must itself be identified and assessed before consent.

11.9.9 Works outside the Order Limits cannot be deferred into existence

The consultation record recognised that works beyond the highway boundary or outside the Order Limits might require additional land and targeted consultation.

That risk remains material. The Applicant should reconcile every proposed highway intervention against:

- the Order Limits;
- Works Plans;
- Land Plans;
- Streets Plan;
- Access and PRoW Plans;

- Book of Reference;
- and the powers in the draft DCO.

The broad description of highway and access works in the draft DCO does not cure the absence of land or plan coverage. If a passing place, visibility splay, oversail area, bridge intervention, vegetation-clearance zone or temporary sign installation falls outside the Order Limits, the DCO cannot authorise it merely through a later CTMP.

Nor should the Examination assume that private agreement will be reached after consent. Where a route depends on third-party land, the Applicant must demonstrate either that the necessary agreement exists or that the land and rights are lawfully included within the compulsory-acquisition or temporary-possession case.

11.9.10 Third-party ownership of trees and hedges creates a direct deliverability risk

NCC expressly notes that roadside trees and hedges may belong to adjacent landowners rather than the highway authority.

That is particularly important where the swept path, visibility splay or AIL envelope depends on pruning or removal. Unless the Applicant controls the land or possesses a sufficient DCO power, the owner may refuse consent.

The Applicant should therefore identify for every affected tree and hedge:

- ownership;
- the proposed work;
- whether the work is temporary or permanent;
- the power or agreement relied upon;
- ecological and heritage constraints;
- and the maintenance obligation.

A route whose clearance depends on later voluntary cooperation from an unidentified or unwilling third party is not a secured route.

11.9.11 Highway agreements and approvals remain to be identified

The Applicant must provide a complete schedule of highway agreements and approvals likely to be required. That should include, where applicable:

- section 278 agreements for highway works;
- section 184 approvals for accesses;
- section 171 licences for works in the highway;
- temporary traffic-regulation orders;
- road-space and permit approvals;
- bridge and structure approvals;
- road-safety audits;
- ordinary-watercourse consent;

- and any agreement required for reinstatement or maintenance.

The application should state for each approval:

- the relevant work;
- the responsible authority;
- whether the approval is required before commencement;
- the current status of discussions;
- and whether there is any unresolved objection or impediment.

The DCO may provide powers to carry out authorised works, but that does not eliminate the need to demonstrate that the detailed engineering can satisfy the relevant highway authority's technical requirements.

11.9.12 The DCO plans and land documents must be reconciled with the transport strategy

The Examining Authority should require a single consolidated schedule reconciling every access, crossing and highway intervention with the legal and plan documents.

For each item, the schedule should identify:

- the access or route reference;
- the relevant site or work;
- the precise highway work;
- the Work No.;
- the Works Plan sheet;
- the Land Plan plot;
- the Streets Plan provision;
- the Access and PRoW Plan reference;
- the Book of Reference entry;
- the landowner;
- the DCO article or Requirement relied upon;
- the separate highway approval required;
- and the environmental assessment reference.

This is necessary because the Scheme's transport strategy has evolved materially, including through targeted consultation and late route changes. The Examining Authority cannot assume that every final route and associated work has been consistently carried through all DCO documents.

The core conclusion is straightforward:

A route is not deliverable merely because a swept-path drawing shows that a vehicle can theoretically pass. The Applicant must possess the land, powers, clearances and environmental permissions needed to make the route physically usable.

On the present evidence, the Applicant has not demonstrated that position across the network on which the Scheme depends.

11.10 Abnormal indivisible loads remain a material unresolved deliverability issue

The transport of abnormal indivisible loads is a separate gateway issue. It should not be treated as a minor subcategory of ordinary construction traffic.

The Scheme requires delivery of major electrical equipment, including transformers and other components whose dimensions or weight may prevent them from being divided into smaller loads. If those components cannot be delivered to their intended locations, the relevant substations, BESS or grid infrastructure cannot be constructed, irrespective of whether ordinary construction traffic can otherwise reach the sites.

The Applicant must therefore demonstrate an end-to-end AIL route that is:

- agreed in principle by the relevant highway authorities;
- physically capable of carrying the identified loads;
- within the Applicant's land and DCO powers;
- environmentally assessed;
- and supported by all necessary temporary works and approvals.

It has not yet done so.

The Examination has since confirmed that AIL deliverability remains a live issue. ISH1 generated a specific action concerning abnormal-load routeing. This is significant because the Scoping Opinion had already required the safety impacts of AIL delivery to be assessed where significant effects were likely and required appropriate safe-transport measures to be included in the AIL report. The Examination is therefore not dealing with a new concern raised only by BEPS; it is testing whether a matter identified at scoping has actually been resolved in the submitted Scheme.

11.10.1 No final port of entry

The Applicant has not fixed the port through which the AILs would enter the road network. The Transport Assessment has considered potential routes from different ports, including Felixstowe and King's Lynn, but the final port and final route remain unresolved.

That uncertainty is material because the choice of port determines:

- the SRN route;
- the junctions and structures affected;
- the route length;
- the local-road approach;
- the cumulative interaction with other projects;
- and the physical works required.

A route from Felixstowe may engage a different combination of A roads, bridges and junctions from a route from King's Lynn. It may also create different environmental and community effects. The Applicant cannot demonstrate route

feasibility merely by identifying more than one possible port and deferring selection until after consent.

National Highways has also stated that it applies the Government's water-preferred policy and would expect abnormal loads to arrive through the nearest suitable port of entry. The Applicant must therefore establish not simply which port it prefers commercially, but which suitable port and road route National Highways considers acceptable.

The Examination should require:

- the dimensions and weights of each AIL;
- the intended destination;
- the preferred port;
- a reserve port only where justified;
- and a full route assessment from port to site.

11.10.2 No final Strategic Road Network route

National Highways' June 2026 Relevant Representation records expressly that the Applicant has not yet determined the AIL routes. It warns that there are existing constraints on parts of the SRN and states that National Highways will need to agree any AIL route using the SRN.

National Highways recognises that final routeing may be completed before construction, but it nevertheless recommends that the Applicant discuss the route before the DCO decision so that a workable and acceptable strategy can be established in principle.

That is a significant qualification. National Highways is not confirming that an acceptable SRN route exists. It is identifying unresolved constraints and asking for an acceptable strategy to be demonstrated.

The Applicant should therefore provide, before the close of Examination:

- a preferred SRN route from the selected port;
- structure and bridge checks;
- vertical and horizontal clearance assessment;
- junction swept paths;
- pavement and axle-load assessment;
- any required temporary road closures;
- interaction with planned National Highways works;
- and written confirmation from National Highways that the route is acceptable in principle.

Without that evidence, the AIL strategy remains contingent on later discovery of whether the relevant loads can traverse the SRN.

11.10.3 No final local route

The uncertainty continues after the AIL leaves the Strategic Road Network.

NCC’s November 2025 targeted-consultation response stated that AILs should use roads of an appropriate standard, namely A and B roads, to reach site access points and should then use internal haul routes. It also required consultation with NCC and Norfolk Constabulary.

Despite that position, the submitted Transport Assessment continues to identify local-road AIL routeing, including Hall Lane. It identifies ‘Compound 2: Hall Lane’ and includes Hall Lane in the anticipated AIL route to access A14.

That is a direct unresolved conflict. NCC said it would not accept construction traffic using Hall Lane, yet the final submitted material still relies on Hall Lane for ordinary compound access and abnormal-load routeing.

The Applicant must therefore answer a binary question.

If Hall Lane is required for the AIL, the relevant part of the Scheme relies on a route rejected by the local highway authority.

If Hall Lane is not required, the Applicant must identify and assess the substitute route, including:

- the public-road approach;
- the internal haul route;
- all structures and clearances;
- land and DCO powers;
- physical works;
- and environmental effects.

The same analysis is required for every AIL destination. It is not sufficient to provide a broad corridor or say that final routeing will be agreed before movement. The availability of the route is integral to whether the associated infrastructure can be constructed.

11.10.4 The necessary physical interventions are not fully defined

The targeted consultation acknowledged that accommodating AILs might require highway works, removal of street furniture and vegetation removal. The Applicant’s route material also refers to temporary interventions and land required to facilitate abnormal-load movements.

The full scope remains unclear. Potential interventions may include:

- removal or relocation of signs, bollards and lighting columns;
- vegetation and tree clearance;
- hedge or bank lowering;
- temporary road widening;
- strengthening of verges or structures;
- protection of utilities;
- junction alteration;
- temporary suspension of parking;
- road closure;

- oversailing;
- wheel overrun;
- and use of third-party land.

Each intervention must be identified by location and reconciled with the DCO powers and environmental assessment.

This is especially important where a route passes through narrow village streets or historic lanes. The removal of a sign may be temporary and straightforward. The lowering of a historic bank, removal of mature vegetation, oversailing of private land or widening of a conservation-area junction is not.

The Applicant must also distinguish between:

- works wholly within the highway;
- works within the Order Limits but outside the highway;
- and works outside both.

Where the route depends on third-party land outside the Order Limits, the DCO cannot secure it. A private agreement may be possible, but the Applicant must demonstrate that it exists or is realistically obtainable.

The AIL assessment should therefore include a works schedule identifying:

- every intervention;
- its duration;
- land ownership;
- DCO plot and power;
- separate consent required;
- environmental effect;
- and reinstatement obligation.

11.10.5 Conservation-area and heritage effects have not been adequately resolved

The Applicant’s own Chapter 11 methodology recognises conservation areas, listed buildings and residential areas as sensitive transport receptors. It identifies conservation areas as locations where specific environmental problems may occur and categorises them as medium-sensitivity receptors.

That recognition must be carried through into the AIL assessment. The AIL routes continue to pass through or affect historically sensitive villages and lanes. The potential works—vegetation removal, bank lowering, street-furniture removal, widening, oversailing and road closure—may alter the character and appearance of conservation areas and the settings of listed buildings.

The submitted evidence does not provide a route-by-route schedule identifying:

- each conservation area traversed;
- each listed building or listed-building setting affected;
- each historic lane, wall, bank, verge or street feature at risk;
- the size and frequency of the AILs;

- the physical works required;
- and the heritage significance of those interventions.

The broad recognition that conservation areas are sensitive receptors is not a substitute for assessment of the actual route.

The Applicant should therefore provide a heritage constraints plan for every candidate AIL route. That plan should identify:

- conservation-area boundaries;
- listed buildings and curtilages;
- historic road alignments;
- walls, banks, trees and verges contributing to character;
- pinch points;
- oversailing or overrun areas;
- temporary works;
- and reinstatement measures.

Where two possible ports or routes remain under consideration, both must be assessed unless the Applicant selects one and removes the other from the case.

The same issue applies to the rural landscape outside formal conservation areas. Historic lanes bordered by mature hedges, banks and listed farmsteads may be highly sensitive even where there is no designation. An AIL route cannot be treated as environmentally acceptable solely because the physical movement would be temporary.

The independent Heritage Impact Assessment submitted by David Edelston materially reinforces this concern. It identifies adverse effects on a wider group of designated heritage assets when highway, access and abnormal-load effects are included, increasing the overall number of affected designated assets beyond those harmed by the principal built development alone. Highway and AIL effects therefore cannot properly be treated as incidental or wholly temporary transport matters: they form part of the heritage impact of the authorised Scheme and must be assessed against the actual route and physical works ultimately relied upon.

11.10.6 AIL deliverability is a binary construction issue

Ordinary traffic effects can sometimes be moderated by reducing daily deliveries, changing hours or using smaller vehicles. That flexibility may not exist for an abnormal indivisible component.

If a transformer or other essential component cannot be divided, the route must accommodate its actual dimensions and weight. If no route can do so without unapproved land, unacceptable highway risk or unassessed environmental harm, the relevant infrastructure cannot be built.

The Applicant should therefore be required to identify:

- every essential AIL;
- its maximum dimensions, gross weight and axle configuration;
- its destination;

- the selected port;
- the SRN route;
- the local route;
- all temporary works;
- the responsible highway authority;
- and the agreement status.

The final point is decisive:

If the principal transformers and other indivisible components cannot be delivered by a route that is agreed, physically available, environmentally acceptable and within the DCO powers, the relevant infrastructure cannot be constructed.

The AIL issue is therefore capable of being independently fatal to the deliverability of material parts of the Scheme.

11.11 National Highways' objection shows that strategic-network deliverability is also unresolved

The Applicant cannot characterise the transport dispute as a local problem confined to narrow South Norfolk lanes. National Highways, the statutory authority responsible for the Strategic Road Network, has lodged a formal objection to the DCO.

Its Relevant Representation identifies unresolved matters at the strategic end of the route hierarchy and states that it is unable to remove its objection unless all outstanding issues are resolved before the Examining Authority makes its recommendation.

11.11.1 The A47/A140 junction has not been adequately assessed

National Highways identifies the A47/A140 junction as a particular concern because construction traffic would use it to transfer between the SRN and the local road network.

The Applicant's Transport Assessment considers changes in traffic flow on SRN links by reference to IEMA thresholds. National Highways says that this is insufficient because junction operation, rather than link flow alone, is the more critical issue for its network.

This is a material methodological deficiency. A relatively modest percentage change on a busy strategic link may nevertheless have a significant effect at a junction operating close to capacity or during a narrow peak period. Link-level screening does not answer:

- whether turning movements create queueing;
- whether slip-road or arm capacity is affected;
- whether peak shoulders are materially worsened;
- whether construction traffic interferes with existing freight;

- or whether safety performance changes.

The Applicant has therefore not demonstrated that the principal gateway between the SRN and A140 can accommodate the Scheme's traffic.

11.11.2 Personal Injury Collision assessment is required

National Highways also requests assessment of Personal Injury Collisions at the relevant SRN junctions.

The Applicant's Chapter 11 includes collision data for the wider local and major-road study area, but National Highways' request demonstrates that the strategic-junction safety case is not yet accepted. A broad statement that the overall collision record does not reveal an existing highway-safety concern is not a substitute for junction-specific analysis where large numbers of construction vehicles will turn or merge.

The Applicant should provide:

- a defined PIC study area;
- collision severity and causation;
- turning-movement relevance;
- temporal patterns;
- existing junction geometry;
- and an assessment of whether construction traffic changes the risk profile.

11.11.3 Junction modelling may be required at the 30-vehicle threshold

National Highways' scoping position was that where a development produces an increase of 30 two-way vehicle movements or more at an SRN junction during a peak period, a capacity assessment is expected.

Its Relevant Representation repeats that modelling should be undertaken where a junction is forecast to experience an increase of more than 30 vehicles in the peak hour and notes that further assessment may also be needed where peak shoulders are affected.

The Applicant has not provided evidence demonstrating that all relevant SRN junction flows remain below that threshold, nor has it supplied the requested junction modelling.

That is especially significant because worker traffic may occur during the morning and evening periods even where HGV deliveries are restricted to the middle of the day. The transport case cannot rely only on the off-peak timing of HGVs while ignoring the peak-hour effect of hundreds of workers.

11.11.4 The cumulative assessment is not sufficiently granular

National Highways requires a more detailed assessment of the cumulative effect of East Pye construction traffic together with other developments under construction using the same SRN junctions.

The issue is not simply whether cumulative traffic increases remain below a broad IEMA percentage threshold on the A47 or A140. It is whether several major infrastructure projects can simultaneously use the same strategic junctions without unacceptable queueing, safety effects or disruption.

Relevant cumulative pressures include major electricity and solar infrastructure schemes with overlapping or potentially overlapping construction periods. National Highways' request confirms that the Applicant's existing cumulative analysis does not yet provide sufficient assurance at the junction level.

A proper assessment should show:

- the construction periods of each relevant project;
- the daily and peak-hour traffic assigned to the A47/A140 and other SRN junctions;
- the vehicle composition;
- the route-assignment assumptions;
- the interaction of HGV and worker traffic;
- and the resulting junction performance.

The August 2026 NPPF strengthens this point. Policy TR6 expressly requires reasonable future transport scenarios to take account of potential cumulative impacts at relevant times of day. The appropriate test is therefore not confined to the Applicant's preferred forecast or a single assumed construction programme. Where other major projects may overlap in time or use common strategic junctions and rural corridors, the assessment should test realistic alternative timing and traffic scenarios.

11.11.5 Binding traffic caps and monitoring are required

National Highways considers the Outline CTMP generally robust but requires it to be strengthened. It asks for evidence that traffic will remain below 30 vehicles per hour at key junctions and for clearer information about how trips are distributed and assigned to routes.

It also requires defined traffic limits, capped to the numbers in the CTMP, together with effective monitoring and predetermined actions if those limits are exceeded. It says that National Highways' role in that monitoring process should be clear.

This is significant because the Applicant's assessment depends on forecast traffic numbers and route assignment. Unless those assumptions are converted into binding limits, the later contractor could generate or assign traffic differently while remaining within a general management framework.

The final CTMP should therefore include:

- numerical HGV and worker-vehicle caps;
- hourly and daily limits;
- route-specific limits;
- automated or auditable monitoring;
- reporting to NCC and National Highways;
- escalation thresholds;
- corrective measures;
- and stop or restriction powers for persistent exceedance.

Until such controls are secured, the assessed traffic case is not necessarily the traffic case that would be delivered.

11.11.6 The Construction Worker Travel Plan is not sufficiently secured

National Highways requires the Construction Worker Travel Plan to be strengthened, including a limit on the number of single-occupancy car journeys sufficient to achieve an agreed car-sharing or modal-split assumption.

This concern is material given the Applicant's forecast peak workforce of up to 720 workers. The assessment assumes a substantial proportion of workers will travel by shuttle bus or shared transport, but the detailed worker-travel arrangements are to be developed later after appointment of the principal contractor.

If the assumed shuttle or car-sharing proportion is not achieved, the number of cars using the A47/A140 junction and local roads could materially exceed the assessed case.

The Applicant should therefore provide binding minimum requirements for:

- single-occupancy vehicle limits;
- shuttle provision;
- parking capacity;
- pick-up locations;
- worker origin monitoring;
- and corrective action where modal-share targets are missed.

11.11.7 Requirement 15 does not adequately protect the SRN

National Highways asks for Requirement 15, relating to the CTMP, to be strengthened. It notes that the draft wording refers to consultation with 'the relevant highway authority' and requests express recognition of National Highways' responsibility for affected SRN junctions, either by naming it or referring to 'relevant highway authorities' in the plural.

The point is not merely grammatical. The CTMP affects both:

- NCC's local highway network; and
- National Highways' strategic junctions.

The Requirement must ensure that National Highways is formally involved in approving or agreeing the provisions that affect its network.

BEPS further submits that consultation alone may be insufficient where National Highways maintains a formal objection. The Requirement should not allow the Applicant to submit a CTMP after merely seeking views. The relevant parts should require approval or written agreement from the authority whose network is affected.

11.11.8 AIL routeing remains unresolved on the SRN

National Highways also records that the AIL routes have not been determined and that some SRN routes contain existing constraints. It requires agreement to any AIL route using the SRN and recommends that a workable strategy be established in principle before the DCO decision.

This links the strategic and local deliverability problems. An AIL route must work continuously from the port, through the SRN, onto the A140 or other major roads, across the local network and into the final site. Agreement at only one stage is insufficient.

The Applicant currently lacks acceptance at both ends of that chain:

- National Highways has not accepted the SRN route; and
- NCC has rejected parts of the proposed local access strategy.

11.11.9 The combined highway-authority position is a project-level objection

The Applicant has therefore not obtained acceptance at either end of the route hierarchy.

NCC does not support the submitted local access strategy for Sites 7–10 and requires a materially different system based on appropriate-standard roads and internal haul routes.

National Highways does not accept that the SRN junction, cumulative, monitoring, worker-travel and AIL cases are sufficiently demonstrated. It maintains a formal objection unless the outstanding matters are resolved.

The significance of this combined position should not be understated. The transport strategy is not accepted:

- at the strategic junctions through which construction traffic must pass;
- on the local roads by which the individual sites would be reached;
- or for the abnormal loads required to construct the principal electrical infrastructure.

The strategic conclusion is therefore:

The Applicant has not obtained acceptance at either end of the route hierarchy. NCC does not support the local access strategy, and National Highways does not accept that the SRN junction and AIL case is sufficiently demonstrated.

Until both positions are resolved through a complete, agreed and environmentally assessed routeing strategy, the Applicant has not demonstrated that the Scheme can be constructed as applied for.

11.12 The construction programme is not reconciled with the physical capacity of the access system

The Applicant's traffic forecasts do not demonstrate that the Scheme can actually be constructed within the proposed programme. Chapter 11 models traffic volumes and then assesses percentage changes on selected links, but it does not reconcile the total construction workload with the practical carrying capacity of the access system on which that workload depends.

The distinction is important. A forecast may show an estimated number of vehicles over a day. It does not establish that those vehicles can pass through constrained roads, holding compounds, controlled sections, shared junctions and construction crossings at the times required to maintain the Applicant's programme.

The Applicant assumes that the principal construction phase would last approximately 24 months. Chapter 11 says the assessment assumes construction in one phase and, for the purpose of providing a reasonable worst case, treats activities at the different Sites as occurring simultaneously. At the same time, it states that simultaneous activity is 'highly unlikely' because construction would be staggered to reduce highway impacts.

Those propositions require closer examination. The Applicant cannot simultaneously rely on:

- simultaneous activity as proof that the environmental assessment is conservative; and
- staggering as mitigation sufficient to make the physical transport system workable,

without producing a construction programme showing how the staggering would actually operate.

The issue is not merely whether the forecast totals represent a numerical worst case. It is whether the construction sequence, route capacity and delivery controls are mutually compatible.

11.12.1 The forecast traffic demand is substantial

The Outline CTMP estimates that construction of the solar Sites could generate, at peak:

- 69 HGV arrivals and 69 HGV departures per day; and

- 205 car, LGV or shuttle arrivals and 205 corresponding departures per day.

The Cable Route Corridor compounds are separately forecast to generate:

- 33 HGV arrivals and 33 departures;
- 15 LGV arrivals and 15 departures; and
- 30 car or shuttle arrivals and 30 departures.

On that basis, the combined peak assumption may involve approximately 102 HGV arrivals and 102 HGV departures per day, alongside approximately 250 non-HGV arrivals and 250 departures, before allowing for the particular effects of abnormal loads or movements that may not be captured in routine daily flows.

The Applicant also forecasts an average construction workforce of approximately 278 people, a peak-month average of approximately 505, and a peak daily workforce of up to 720. These workers would be distributed across a geographically dispersed project rather than arriving at one central urban construction site.

These numbers are industrial in character when applied to a network containing single-track lanes, limited passing opportunities, schools, village frontage, weight-restricted roads, bridge constraints and roads with daily baseline flows measured in tens rather than thousands of vehicles.

11.12.2 The available HGV delivery period is compressed

The Applicant proposes that routine HGV deliveries and collections should generally take place between 09:30 and 16:30, avoiding the conventional morning and evening network peak periods. Worker arrivals are expected principally between 06:30 and 08:00, with departures between 16:30 and 19:00.

The HGV delivery window is therefore approximately seven hours. Within that period the Applicant must accommodate:

- deliveries to multiple solar construction areas;
- cable-route compounds;
- substations;
- the BESS;
- the National Grid substation;
- internal haul-road works;
- civil engineering and drainage works;
- concrete and aggregate deliveries;
- plant and equipment movements;
- waste collections;
- and other project logistics.

That seven-hour period may be reduced further in practice by:

- school avoidance;
- road closures or temporary signals;
- one-at-a-time release restrictions;

- traffic marshal controls;
- public and agricultural traffic;
- vehicle queuing;
- driver-hours restrictions;
- breakdowns;
- bad weather;
- and delays at the A47, A140 and local junctions.

The Applicant has not produced a route-capacity calculation demonstrating that the required number of HGVs can pass through the proposed control system within the available hours.

A simple average illustrates the issue but does not resolve it. If 102 HGV arrivals were distributed evenly across seven hours, that would represent around 14 to 15 arrivals per hour across the Scheme, with the same number of departures. In reality, movements would not be evenly distributed. Concrete pours, substation deliveries, cable works and particular construction activities may create concentrated demand at individual sites and shared corridors.

The relevant question is therefore not the Scheme-wide hourly average. It is the maximum practical throughput of each constrained route and access when the construction programme requires it.

11.12.3 One-at-a-time release materially constrains route throughput

The Applicant proposes holding compounds at Sites 4A and 10C, call-forward systems and one-HGV-at-a-time release towards certain sites. Traffic marshals may use stop boards to control movements where necessary.

These controls confirm that parts of the network cannot accommodate ordinary two-way HGV flow. They therefore impose a finite limit on route capacity.

For each such route, the Applicant should calculate:

- the distance from the holding area to the destination;
- the journey time;
- the unloading or turnaround time where relevant;
- the time required for the vehicle to clear the controlled section;
- whether another HGV can be released before the first has returned;
- the effect of public vehicles entering the route;
- and the number of deliveries that can be completed within the 09:30–16:30 window.

That analysis has not been provided.

If, for example, a controlled route takes 15 or 20 minutes to clear, one-at-a-time working may allow only a small number of movements per hour. If the same route serves multiple parcels, cable works and compounds, the available capacity must be allocated between them.

The issue becomes more serious where construction traffic uses both directions of travel. A restriction framed as one HGV ‘at a time’ must clarify whether it means:

- one HGV in each direction;
- one HGV anywhere within the controlled section;
- or one released convoy.

Each produces a different practical capacity and safety outcome.

11.12.4 Holding compounds are themselves programme-critical infrastructure

The proposed call-forward system depends on temporary compounds at Sites 4A and 10C functioning as waiting areas.

The Applicant has not demonstrated:

- the number of HGVs each holding area can accommodate;
- whether vehicles can enter and leave without blocking the public highway;
- whether separate space is available for cars, LGVs, plant and emergency access;
- whether the holding area is operational before dependent sites require deliveries;
- and whether it remains available while the compound’s own construction work takes place.

A holding area cannot be assumed to perform two incompatible functions simultaneously. If it is occupied by construction plant, materials, welfare facilities or site works, its vehicle-storage capacity may be materially reduced.

The construction programme must therefore show when each holding compound is established, when it becomes operational, which sites depend upon it and whether its capacity is sufficient during the peak month.

11.12.5 School avoidance further restricts the usable programme

The Applicant proposes avoiding sensitive school periods where practicable. That is appropriate in principle, given the presence of Hempnall and Saxlingham primary schools and other school and nursery traffic on affected routes.

However, school avoidance further compresses the time available for delivery. It may affect not only the conventional 08:00–09:00 period but also:

- nursery drop-off over a wider morning period;
- afternoon school collection;
- school buses;
- after-school activity;
- and routes used by pupils walking or cycling.

Evidence submitted in relation to Site 5 notes that nursery drop-off and collection may take place over extended periods because parents and carers have differing working hours.

The Applicant should therefore identify the actual restricted periods on each school-sensitive route rather than relying on generic network peaks. It should then demonstrate that the resulting reduced delivery window is compatible with the programme.

11.12.6 Multiple sites depend on common corridors

The dispersed nature of the Scheme does not mean that traffic is evenly dispersed. Several sites depend upon common strategic and local corridors.

The A47/A140 junction, the A140 itself, the B1527 and a limited number of B-road gateways would carry traffic serving multiple work fronts. NCC's preferred strategy would further consolidate traffic by requiring sites to be served from appropriate B roads and then by internal haul routes. For example:

- Sites 1A–2C would depend on a single Station Road access and CRC2/CRC3;
- Sites 5A–5B would share one B1527 access;
- Sites 7–9 would depend on CRC8 west of Hempnall;
- and Sites 10A–10D would share one Harvey Lane access.

Consolidation may reduce the number of public-road interfaces, but it also concentrates traffic on fewer gateways. The Applicant must show that those gateways and internal corridors can carry the combined programme for all dependent parcels.

The issue cannot be answered by assessing each site's traffic separately and then assuming that the common route has sufficient capacity.

11.12.7 Specialist construction activities create concentrated traffic demand

The Scheme includes more than routine panel deliveries. Its construction programme must accommodate activities with particular logistical requirements.

These include:

- National Grid substation construction;
- project substation construction;
- BESS construction;
- transformer and switchgear installation;
- pylon and overhead-line works;
- cable trench excavation and reinstatement;
- HDD or other trenchless crossings;
- construction compounds and internal haul roads;
- drainage and SuDS works;
- and concrete pours.

Concrete works may require a continuous sequence of mixer deliveries. Cable installation may require drums, winches, excavation plant, stone, backfill and spoil movements. HDD works require drilling rigs, drilling fluids, water, spoil handling and support plant. Substation foundations and hardstanding may create concentrated aggregate and concrete demand. AIL deliveries may require temporary closure or suspension of ordinary construction traffic.

The Applicant has not provided a programme showing how these activities interact with the route-control system.

In particular, a concrete pour cannot necessarily be interrupted simply because a one-at-a-time rural route has reached its nominal hourly capacity. Nor can an AIL movement necessarily share a narrow road with routine HGV deliveries, school traffic or a temporary road closure.

11.12.8 AIL movements may temporarily remove route capacity

AIL movements may require:

- temporary road closures;
- police or escort control;
- removal of street furniture;
- use of the full carriageway;
- slow travel;
- junction occupation;
- and suspension of other construction deliveries.

The AIL routes remain unresolved, so the Applicant has not shown when or where routine route capacity would be lost.

A programme-linked assessment should identify:

- the anticipated date or construction stage of each AIL;
- the route;
- the closure duration;
- affected sites;
- displaced ordinary deliveries;
- and how lost programme time would be recovered.

Without that analysis, the traffic assessment treats AILs as isolated specialist events when they may materially interrupt the logistics programme.

11.12.9 Cable and HDD works may obstruct the same routes relied upon for access

NCC requires HDD beneath affected A and B roads and expects extensive use of CRCs as internal haul routes.

The Applicant must demonstrate how cable installation and traffic access would be sequenced where the same corridor or crossing is needed for both purposes.

Questions include:

- Can the haul route remain open while the cable trench is excavated?
- Does an HDD compound occupy land required for vehicle passage?
- Can heavy vehicles cross a completed but not fully reinstated cable section?
- Are temporary road crossings available before cable installation?
- Does one work front block access to another?

The current material does not provide a programme-level reconciliation of those dependencies.

11.12.10 Cumulative use of the A140 and A47 is unresolved

National Highways objects because the Applicant has not adequately assessed junction operation, particularly at the A47/A140 junction, and has not provided a sufficiently granular cumulative assessment of overlapping construction projects.

This bears directly on programme deliverability. The Applicant’s construction programme depends on vehicles reaching the local network from the SRN. Delay or restriction at the A47/A140 junction could disrupt:

- delivery booking;
- call-forward timing;
- concrete supply;
- worker arrival;
- and one-at-a-time route control.

The problem may be compounded by Norwich to Tilbury and other major infrastructure projects using the same network. National Highways’ request for more detailed assessment confirms that this shared strategic capacity has not been demonstrated.

11.12.11 No programme-linked logistics model has been provided

The Applicant should provide a consolidated logistics model tied to the construction programme.

For each Site, CRC compound and major infrastructure work, it should identify:

- commencement and completion dates;
- duration of each principal activity;
- average and peak daily HGV demand;
- average and peak hourly demand;
- vehicle type;
- public-road route;
- internal route;
- shared-route dependency;
- holding-compound dependency;
- route capacity;

- travel and turnaround time;
- school and delivery restrictions;
- road or PRoW closure periods;
- AIL conflicts;
- concrete-pour requirements;
- worker movements;
- weather assumptions;
- and programme-recovery arrangements.

The model should then demonstrate that the highest combined demand can be accommodated without:

- exceeding assessed traffic limits;
- using routes rejected by NCC;
- breaching delivery-hour restrictions;
- creating uncontrolled queues;
- or extending the construction programme beyond the assessed period.

The Applicant’s assessment assumption that all activity occurs simultaneously may provide a conservative link-flow calculation, but it does not perform this logistical function. Nor does the general statement that work will in practice be staggered show which activities will move, for how long and with what environmental consequences.

The central point is:

A traffic forecast based on theoretical daily totals does not establish that the Scheme can be delivered within the proposed construction period where movements are constrained by short delivery windows, single-vehicle releases and shared rural access routes.

Unless the Applicant demonstrates the compatibility of its programme and its access controls, either the transport assumptions are unrealistic or the 24-month programme is not deliverable. If the programme extends, the duration of traffic, noise, PRoW, ecological and community effects would also extend beyond the assessed case.

11.13 Worker transport is not secured and could materially alter the assessment

Worker transport is not a peripheral element of the Scheme’s traffic case. At a peak workforce of up to 720 people, the difference between the assumed and actual mode of travel could materially alter traffic flows on both the local and strategic highway networks.

The Applicant’s construction estimates identify an average daily workforce of approximately 278 people and a peak workforce of up to 720. The transport assessment relies on assumptions concerning private cars, car sharing, LGVs, minibuses and shuttle buses to convert that workforce into vehicle movements.

Those assumptions are not yet secured by a final Construction Worker Travel Plan.

11.13.1 The assumed workforce travel pattern is not fixed

The Applicant proposes a mix of measures including:

- car sharing;
- shuttle buses;
- public transport;
- cycling;
- travel-plan coordination;
- and management of worker parking.

However, the detailed worker-travel arrangements will be developed later, after appointment of the principal contractor and when more is known about workforce origins and construction phasing.

That means several matters central to the traffic forecast remain unresolved:

- where workers will live;
- where they will begin their journeys;
- which sites they will attend;
- how many will travel between sites;
- which shuttle routes will operate;
- where shuttle pick-up points will be;
- how frequently shuttles will run;
- how much parking will be available;
- and what vehicle occupancy will actually be achieved.

The Applicant’s estimates therefore represent assumptions about a future travel plan, not a secured operational arrangement.

11.13.2 Workforce origins are unknown

Worker origins determine the direction and distribution of traffic.

A workforce drawn mainly from Norwich may place substantial pressure on the A47/A140 corridor. Workers from Diss, Ipswich, Great Yarmouth, Lowestoft or temporary accommodation elsewhere would produce different route assignments. Specialist grid, BESS and substation contractors may travel greater distances than general construction labour.

Without a workforce-origin survey or defined accommodation strategy, the Applicant cannot reliably demonstrate:

- which strategic junctions will be used;
- which local roads will carry worker traffic;
- or whether the assessed distribution reflects the likely workforce.

This matters because National Highways’ concern is focused on junction operation, not merely broad link percentages.

11.13.3 Shuttle provision is not defined

The Applicant relies in part on shuttle buses to reduce private-car traffic. But the application does not provide a final schedule of:

- shuttle capacity;
- number of vehicles;
- frequency;
- operating hours;
- pick-up locations;
- routes;
- or contractual commitment.

A general intention to provide shuttles is not equivalent to an enforceable modal-share assumption.

Shuttle buses also require:

- suitable pick-up and waiting locations;
- worker parking at those locations;
- reliable departure times;
- access to dispersed compounds;
- and sufficient capacity at shift change.

If workers are assigned to multiple remote sites, one central shuttle route may not be practical. Multiple shuttle services may themselves create additional vehicle movements.

11.13.4 Public transport provides limited support for the assumed modal shift

Chapter 11 identifies a small number of rural bus services, but their relationship to construction shifts and dispersed site compounds is limited. Some services operate hourly or every two hours, and not all serve the sites at the required early-morning start time.

The local public-transport network therefore cannot be assumed to absorb a material proportion of the workforce without additional dedicated provision.

The Applicant should distinguish clearly between:

- existing public transport;
- dedicated contractor shuttles;
- minibuses between compounds;
- and private car sharing.

These are different modes requiring different levels of control and certainty.

11.13.5 Parking locations and capacities are not final

A car-based workforce requires substantial parking. If even half of the 720 peak workforce travelled in single-occupancy vehicles, that would require around 360 cars and parking spaces. A less successful modal shift could require substantially more.

The Applicant must identify:

- parking capacity at each construction compound;
- whether parking is shared with plant, materials or holding areas;
- how unauthorised roadside parking will be prevented;
- and how workers are transferred from parking locations to work fronts.

This is especially important where Site 4A and Site 10C are also relied upon as HGV holding and call-forward areas. Worker parking cannot be allowed to undermine the capacity of the logistics system.

11.13.6 Worker peaks may affect the network even where HGV peaks are avoided

The Applicant proposes worker arrivals between 06:30 and 08:00 and departures between 16:30 and 19:00.

This does not eliminate network effects. It creates project-specific peaks immediately before the construction shift and across the late afternoon and evening.

The departure window overlaps:

- the conventional evening peak;
- school and nursery collection periods at its earlier end;
- HGV movements continuing until 16:30;
- and local commuter traffic.

The Applicant should therefore assess actual construction shift peaks rather than relying only on conventional one-hour highway peaks.

11.13.7 Failure to achieve the assumed modal split would alter the assessment

National Highways specifically requires the Construction Worker Travel Plan to be strengthened by limiting single-occupancy car trips so that an agreed car-sharing ratio can be achieved.

That request is important because it confirms that the current assumptions are not sufficiently secured.

If the assumed vehicle occupancy is not achieved:

- total car movements will increase;
- parking demand will increase;
- the A47/A140 and local junction flows may exceed the assessed case;
- call-forward and holding areas may be compromised;
- and worker traffic may overlap more significantly with local traffic and HGVs.

The final Worker Travel Plan should therefore secure, at minimum:

- a maximum number of single-occupancy vehicle trips;
- minimum vehicle occupancy;
- minimum shuttle capacity and frequency;
- maximum parking provision;
- monitoring of worker origins and modes;
- route-specific traffic limits;
- and corrective measures if targets are missed.

The monitoring regime must be capable of changing operations, not merely reporting failure after it has occurred.

Worker transport is not peripheral. At peak workforce levels, failure to achieve the assumed modal split could materially increase traffic at local and SRN junctions. Until the Applicant converts its assumptions into binding and deliverable arrangements, the worker-traffic component of the assessment remains uncertain.

This is now expressly reinforced by NPPF Policy TR6. Travel plans should identify fallback options where the initial measures do not achieve their expected outcomes. For East Pye, it is therefore insufficient merely to assume successful car sharing or shuttle uptake. The Applicant should identify what enforceable response follows if single-occupancy trips exceed the assessed level, shuttle use is lower than assumed or worker origins produce materially different route distributions.

11.14 The baseline and assessment methodology do not prove route-specific safety

BEPS does not submit that the traffic surveys are automatically invalid merely because the survey programme is limited or contains inconsistencies. The narrower and more important point is that the evidence presented does not prove that every route required by the final construction strategy is safe and operationally feasible.

That distinction matters because the access strategy changed during the pre-application process and remains disputed by NCC. A baseline that may be adequate for broad environmental link assessment does not necessarily establish the safety of a final route, access, junction or closure arrangement.

11.14.1 The survey coverage is primarily link-based

The Applicant undertook 20 initial ATC surveys and one MCC survey in November 2024. Ten additional ATCs were subsequently undertaken in April and May 2025

after the study area was revised, producing a total of 30 ATC locations but only one manual classified junction count.

The sole MCC was at Hempnall Roundabout.

The ATCs provide useful information on:

- traffic volumes;
- vehicle classification;
- and speed characteristics at selected road links.

They do not provide the same level of information as a manual junction survey about:

- turning movements;
- queueing;
- conflicting flows;
- pedestrian interaction;
- access use;
- or operational behaviour at a specific junction.

This is significant because the Scheme depends on numerous junctions and access points, while National Highways has specifically criticised the Applicant's focus on link flows rather than junction operation at the A47/A140 junction.

The methodology therefore provides broad network coverage but limited junction-specific evidence.

11.14.2 The survey network does not cover every access, closure or diversion route

The Applicant states that the surveyed links collectively encompass the study area and provide a robust basis for assessment.

That assertion must be tested against the final routeing strategy.

The Scheme contains 65 access and crossing points and may require temporary closures or restrictions on a large number of roads. The survey programme does not provide a count at every:

- site access;
- CRC access;
- road crossing;
- closure point;
- diversion route;
- school-sensitive section;
- or marshal-controlled pinch point.

This does not mean that a survey was legally required at every access. It does mean that the Applicant cannot infer route-specific safety and capacity from broad study-area coverage without explaining how each unsurveyed route or junction has been assessed.

The problem is more acute where routes changed after the original surveys or where NCC now requires a different route architecture based on CRC8, CRC14 and internal haul routes.

11.14.3 The surveys were undertaken in two different periods

Chapter 11 states that the first surveys were undertaken between 1 and 7 November 2024 and that the additional ten ATCs were undertaken between 26 April and 2 May 2025.

However, the assessment-limitations section states that ‘all surveys took place in September,’ describing September as a traffic-neutral month.

Those statements are plainly inconsistent.

The inconsistency should be corrected, and the Applicant should explain:

- which dates apply to each dataset;
- whether school holidays affected any survey days;
- whether seasonal agricultural traffic affected the counts;
- whether roadworks or construction of the Long Stratton Bypass affected route choice;
- and how the two survey periods were normalised.

Evidence submitted in relation to Site 5 notes that the November 2024 survey period overlapped with the end of the Norfolk school half-term and with construction of the Long Stratton Bypass, while the wider period may also have been affected by seasonal agricultural traffic.

That evidence does not by itself prove that the counts are unusable. It does require the Applicant to explain why the data remain representative of the baseline relevant to the Scheme’s construction.

11.14.4 Raw survey data have not been identified in the submitted appendix package

The Transport Assessment lists appendices covering accident data, technical notes, access and swept-path drawings, AIL material and correspondence. A separate appendix containing the complete raw ATC and MCC outputs has not been identified in the submitted TA package.

The main documents provide summary tables, but summary data do not permit Interested Parties or the Examining Authority to examine:

- day-by-day variation;
- hourly profiles;
- classification categories;
- anomalous periods;
- directional imbalance;
- survey interruptions;
- or the relationship between raw counts and the reported AADT/AAWT figures.

The Applicant should therefore disclose the raw survey outputs and processing methodology.

That request is not an assertion that the summaries are necessarily wrong. It is a request for the evidence needed to test the conclusions, particularly where low baseline flows and percentage changes are central to the significance assessment.

11.14.5 AADT and AAWT figures incorporate extrapolation assumptions

Chapter 11 acknowledges that AAWT and AADT estimates were extrapolated from morning and evening peak-hour counts using growth factors. It accepts that this introduces assumptions about off-peak and night-time volumes and assumes a level of consistency through the year which may not reflect seasonal or event-driven variation.

That limitation is material in a rural area where traffic may vary because of:

- harvesting;
- school terms;
- tourism;
- roadworks;
- flooding;
- agricultural operations;
- and local events.

It is also relevant because the Applicant’s construction controls are highly time-specific. An annual or 24-hour average does not necessarily show the traffic conditions during the proposed 09:30–16:30 HGV delivery period or during the 06:30–08:00 worker arrival period.

The Applicant should provide hourly baseline profiles for the affected routes, not merely AADT totals.

11.14.6 Speed limits were used as a proxy where actual speeds were not measured

Chapter 11 states that average speeds were not measured across all links and that speed limits were used as a proxy, effectively assuming vehicles travel at the legal maximum. It acknowledges that this overlooks real-world variation.

The Applicant describes this as a conservative approach for environmental assessment. It may be conservative for some noise or fear-and-intimidation calculations. It does not necessarily provide a sound basis for access or route safety.

Visibility-splay requirements depend on actual or design speeds, while safety on rural lanes may be affected by:

- speeds below the limit at bends;

- speeds above an expected operational level on straight sections;
- acceleration and braking;
- poor forward visibility;
- and the speed differential between HGVs and other users.

Where an access or mitigation measure depends on a particular speed assumption, route-specific measured speeds should be provided.

11.14.7 Percentage thresholds do not establish physical feasibility

The Applicant applies IEMA screening rules based principally on:

- traffic increases above 30%; and
- increases above 10% in sensitive areas.

Those thresholds are appropriate as an environmental-assessment screening tool. They do not answer whether a road or junction is physically capable of carrying the vehicles assigned to it.

A narrow lane may receive a numerical increase below 30% but still be unsuitable because of:

- width;
- bridge capacity;
- blind bends;
- weak verges;
- lack of pedestrian refuge;
- or absence of passing opportunities.

Conversely, a very large percentage increase on a road with a low baseline may reflect a profound change in rural character even where the absolute number remains modest.

The Applicant’s own Table 11.16 shows increases of:

- 116% in total traffic and 147% in HGV traffic on western Fairstead Lane;
- 58% and 74% on Shotesham Road;
- and substantial increases on other minor roads.

Those figures trigger environmental assessment, but the resulting professional judgement cannot substitute for engineering proof that the route works.

11.14.8 Junction operation has not been comprehensively assessed

National Highways’ formal objection is the clearest evidence of this deficiency. It says the Transport Assessment addresses SRN link flows but does not provide the more critical junction analysis, particularly for A47/A140. It requests PIC analysis and modelling where peak-hour increases exceed 30 vehicles.

The same methodological issue applies more widely at local level.

The Scheme depends on:

- HGV turning at B-road junctions;
- left-in/left-out access arrangements;
- roundabout U-turns or circulation;
- marshal-controlled accesses;
- and junctions affected by on-street parking or village frontage.

A complete route-safety case should identify each critical junction and provide proportionate evidence on:

- geometry;
- turning demand;
- visibility;
- queueing;
- collision history;
- vulnerable users;
- and interaction with existing traffic.

11.14.9 Vulnerable-user assessment is not fully route-specific

Chapter 11 identifies pedestrians, cyclists, equestrians, PRoW users, children, older people and disabled people as sensitive receptors. It also identifies schools, conservation areas, residential areas and roads without footways as sensitive locations.

However, the assessment often proceeds at highway-link level and relies on general statements that existing pedestrian or cyclist activity is low.

That does not provide a complete route-specific assessment of:

- where children cross;
- where school buses stop;
- where walkers join or leave a PRoW;
- where equestrians have no refuge;
- where residential drives enter a narrow lane;
- where a diversion transfers users onto a busier road;
- or where a promoted route coincides with a construction corridor.

Low observed numbers at a particular time do not eliminate the importance of the route to those who use it.

A route-by-route vulnerable-user assessment should therefore show:

- footways and their widths;
- crossing points;
- bus stops;
- schools and nurseries;
- PRoW intersections;
- promoted trails;

- equestrian use;
- residential frontage;
- speed and visibility conditions;
- and the proposed protection at each conflict point.

11.14.10 Later route changes weaken reliance on the original survey framework

The survey programme was designed around an evolving study area. The Applicant later changed important routeing assumptions, including the movement from an A140/Fairstead approach towards The Krons and Fairstead Lane. NCC's June 2026 position now requires a different architecture based on CRC8 and internal haul routes for Sites 7–9.

The Applicant must therefore demonstrate that the data and methodology remain appropriate for the route strategy ultimately relied upon.

Where a new route:

- was not part of the original survey design;
- has no manual junction count;
- affects different vulnerable users;
- or requires different closures and crossings,

the assessment may need to be updated rather than merely reinterpreted.

ExQ1 has subsequently required further explanation of transport arrangements which remain dependent upon future approvals and detailed design. That questioning is consistent with the central distinction made in this chapter: detailed approval may properly regulate the implementation of a demonstrated route, but should not be required to determine for the first time whether an essential route or highway intervention is available and acceptable.

11.14.11 The proper conclusion

The survey evidence provides useful baseline information. It does not, on its own, demonstrate that all required routes are safe or deliverable.

The outstanding issues include:

- inconsistent survey-date descriptions;
- data collected in different periods;
- limited manual junction assessment;
- reliance on selected links;
- extrapolated annual and daily flows;
- incomplete measured-speed coverage;
- no identified raw-data appendix;
- late route changes;
- and continuing highway-authority objections.

The correct conclusion is therefore not that the surveys are necessarily invalid. It is narrower and more material: the evidence is not sufficient to prove that every route needed by the final construction strategy is safe and operationally feasible.

The Applicant should be required to identify the final route network first and then demonstrate, with route-specific traffic, speed, junction, collision and vulnerable-user evidence, that each essential route can safely perform the function assigned to it.

11.15 The significance methodology masks the real deliverability problem

Chapter 11’s significance methodology gives a misleading impression of certainty because it converts acknowledged high-sensitivity receptors and high-impact pathways into a series of ‘not significant’ conclusions without first demonstrating that the mitigation on which those conclusions depend is fixed, agreed and deliverable.

The Applicant’s own final summary is striking. Table 11.27 identifies high sensitivity or high impacts in relation to severance, non-motorised-user delay, non-motorised-user amenity, fear and intimidation, road safety and hazardous or large loads. Yet each effect is ultimately characterised as minor, low or negligible and ‘not significant’. The same table concludes that decommissioning effects are likewise not significant. Chapter 11 then states that no residual transport effects have been identified and that no additional mitigation is required.

That approach masks the central transport issue. The question is not only whether a predicted percentage increase on a selected highway link produces a significant environmental effect under the Applicant’s EIA matrix. The more basic question is whether the route itself is accepted, physically available and capable of carrying the vehicles assigned to it.

11.15.1 The ‘not significant’ conclusions depend on mitigation that is not fully agreed or fixed

Chapter 11’s conclusions are reached only after taking account of embedded and secondary mitigation. The mitigation package includes, among other things:

- internal haul routes;
- call-forward systems;
- HGV holding areas;
- one-HGV-at-a-time release;
- marshals and banksmen;
- passing places;
- temporary signals;
- speed restrictions;
- delivery-hour restrictions;
- vehicle-length controls;
- PRoW management;
- AIL coordination;
- and later detailed CTMP and OTMP provisions.

Those measures are not all fixed in the submitted application. Some remain indicative. Others depend upon later site selection, highway-boundary confirmation, land rights, detailed design, highway-authority agreement or contractor proposals. Some concern routes that NCC does not support in the form assessed.

The problem is clearest for Sites 7–10. NCC's formal Relevant Representation states that the current transport strategy for those sites does not adequately address the significant highway constraints, does not provide sufficient mitigation and 'cannot be supported'. NCC instead requires access through appropriate-standard roads and internal haul routes or Cable Route Corridors.

National Highways also maintains a formal objection. It requires further junction analysis, cumulative assessment, traffic caps, monitoring, a strengthened Construction Worker Travel Plan, amended DCO controls and an agreed AIL strategy.

Those positions are incompatible with the presentation in Chapter 11 of the mitigation package as sufficiently established to support a complete 'not significant' conclusion.

A measure cannot properly reduce the assessed effect unless there is adequate confidence that it will be implemented and will work. Where the route itself is disputed, a future management plan cannot be treated as though it has already secured an acceptable solution.

The same concern arises from Chapter 11's statement that, because no significant effects remain after embedded and secondary mitigation, no additional mitigation is required. That conclusion is circular. The Applicant first assumes that unresolved controls and later plans will be effective, then uses the resulting 'not significant' finding to say that nothing further is necessary.

The proper sequence should be the reverse:

1. identify the final route and access strategy;
2. demonstrate that it is accepted and physically deliverable;
3. identify and secure the mitigation required;
4. assess the resulting effects;
5. and only then conclude whether any residual effect is significant.

The Applicant has instead assessed a partly unresolved route strategy and treated future controls as though they already form a settled mitigation package.

11.15.2 High receptor sensitivity is repeatedly diluted by professional judgement

The methodology identifies vulnerable and non-motorised users as high-sensitivity receptors. It recognises that children, older people, disabled people, equestrians and other vulnerable users may be especially affected by changes in traffic flows. It also recognises schools, routes without footways, accident-sensitive locations, conservation areas, listed buildings and residential areas as sensitive environments.

Those sensitivities are plainly present across the Scheme area. The affected network includes:

- primary schools;
- narrow lanes without footways;
- PRoWs and promoted trails;
- residential frontage;
- conservation areas;
- listed buildings;
- equestrian routes;
- and rural roads with very low baseline traffic.

Despite that, the final assessment concludes that:

- severance effects on high-sensitivity NMUs are only minor adverse;
- NMU delay is negligible;
- fear and intimidation is negligible;
- road-safety effects are low;
- and hazardous and large-load effects are low.

Those conclusions depend heavily on professional judgement after screening by percentage thresholds. The methodology does not, however, explain why high-sensitivity receptors exposed to very large relative traffic increases, constrained road geometry and prolonged traffic management should consistently produce only low or negligible residual effects.

For example, the Applicant records very large increases on minor rural roads, including a 116% increase on western Fairstead Lane, yet still concludes that overall effects are not significant. The conclusion is reached in part by relying on low existing user numbers and proposed management. That reasoning understates the importance of these roads to the users who do rely upon them and overlooks the physical constraints that make the roads sensitive in the first place.

The methodology therefore risks producing a formal EIA answer that is disconnected from the practical transport question.

11.15.3 Link-based significance does not establish route deliverability

Chapter 11 is structured principally around environmental effects on selected highway links. It considers percentage changes in total and HGV traffic and then applies professional judgement to severance, delay, amenity, fear and intimidation, safety and large loads.

That may be relevant to environmental significance, but it does not establish that a route is physically deliverable.

A road may fall below an IEMA screening threshold and still be unusable because:

- two HGVs cannot pass;

- a bridge has not been shown to carry the relevant axle load;
- a visibility splay lies on third-party land;
- a passing place cannot be acquired;
- vegetation cannot lawfully be removed;
- a route floods;
- an AIL cannot negotiate a bend;
- or the highway authority will not accept construction use.

Conversely, a road may experience a very large percentage increase but still be labelled ‘not significant’ after mitigation. That label does not establish that the mitigation works can be built, that the route is accepted or that the programme can operate through it.

The physical feasibility question is therefore separate from the EIA significance conclusion.

This distinction is especially important for:

- Hall Lane, which remains in the submitted routeing despite NCC’s stated refusal to accept construction traffic there;
- Sites 7–10, for which NCC requires a materially different access system;
- the A47/A140 junction, where National Highways says the junction-level assessment is inadequate;
- and the unresolved AIL routes.

None of those problems is answered by saying that the effect on a selected link is ‘low’ or ‘not significant’.

11.15.4 A route may be environmentally ‘not significant’ yet unacceptable to the highway authority

The local and strategic highway authorities apply duties and technical judgments that are not identical to the EIA significance matrix.

NCC is concerned with, among other things:

- highway safety;
- route geometry;
- suitability of roads;
- access consolidation;
- passing and visibility;
- bridge and verge constraints;
- the relationship between public roads and internal haul routes;
- and the practical operation of the local network.

National Highways is concerned with:

- SRN junction capacity;
- safety;
- cumulative operation;
- traffic caps;
- monitoring;

- worker traffic;
- and AIL routeing.

A route can therefore be ‘not significant’ under the Applicant’s environmental matrix while still being unacceptable to the authority responsible for operating and protecting that network.

That is precisely the position here. Chapter 11 concludes that road-safety and hazardous-load effects are not significant. Yet NCC does not support the submitted Sites 7–10 strategy, and National Highways maintains a formal objection to the strategic-junction and AIL case.

The Applicant cannot use its own significance conclusion to displace those statutory positions.

11.15.5 A route may also be impossible to implement despite a ‘not significant’ conclusion

The methodology also does not capture land and powers constraints.

A route may be assessed as environmentally acceptable on an indicative basis, but still be impossible to implement if:

- the passing place lies outside the Order Limits;
- the Applicant does not control the hedge needed for clearance;
- the visibility splay is unavailable;
- the proposed oversail crosses private land;
- drainage cannot be accommodated;
- or the relevant bridge requires works not authorised by the DCO.

These are binary deliverability constraints. They are not matters of environmental magnitude.

The same applies to internal haul-route alternatives required by NCC. If the alternative route would require new watercourse crossings, additional land, different drainage, new PRoW conflicts or unassessed ecological effects, the issue is not whether the original public-road route was ‘not significant’. It is whether the substitute route exists within the submitted Scheme.

11.15.6 The treatment of decommissioning compounds the methodological weakness

Chapter 11 states that decommissioning effects will be no worse than construction and therefore not significant. It does not assess the future network, future sensitive receptors, future baseline traffic or future cumulative projects in detail. The cumulative decommissioning assessment is not undertaken because the position more than 60 years ahead is said to be too uncertain.

That creates an inconsistency. The Applicant says the future is too uncertain for a cumulative decommissioning assessment, but sufficiently certain to conclude

that decommissioning effects will be no worse than construction and not significant.

The future condition of:

- retained accesses;
- rural roads;
- bridges;
- PRoWs;
- settlements;
- traffic levels;
- and environmental receptors

cannot presently be known. The ‘not significant’ conclusion therefore rests on assumption rather than a demonstrated future access strategy.

11.15.7 The correct interpretation of Chapter 11’s significance findings

BEPS does not submit that every identified transport effect must automatically be categorised as significant under the EIA Regulations. The point is more precise.

The Chapter 11 significance conclusions do not determine whether the Scheme is deliverable. They are conditional conclusions based on:

- selected links;
- forecast traffic;
- professional judgement;
- assumed mitigation;
- and a route strategy that remains disputed.

The Examination must therefore keep three questions separate:

1. What are the likely environmental effects on the assessed links?
2. Is the mitigation relied upon fixed, secured and effective?
3. Is the route and access system physically, legally and operationally deliverable?

The Applicant has concentrated on the first question, assumed the answer to the second and not demonstrated the third. The critical strategic distinction is therefore:

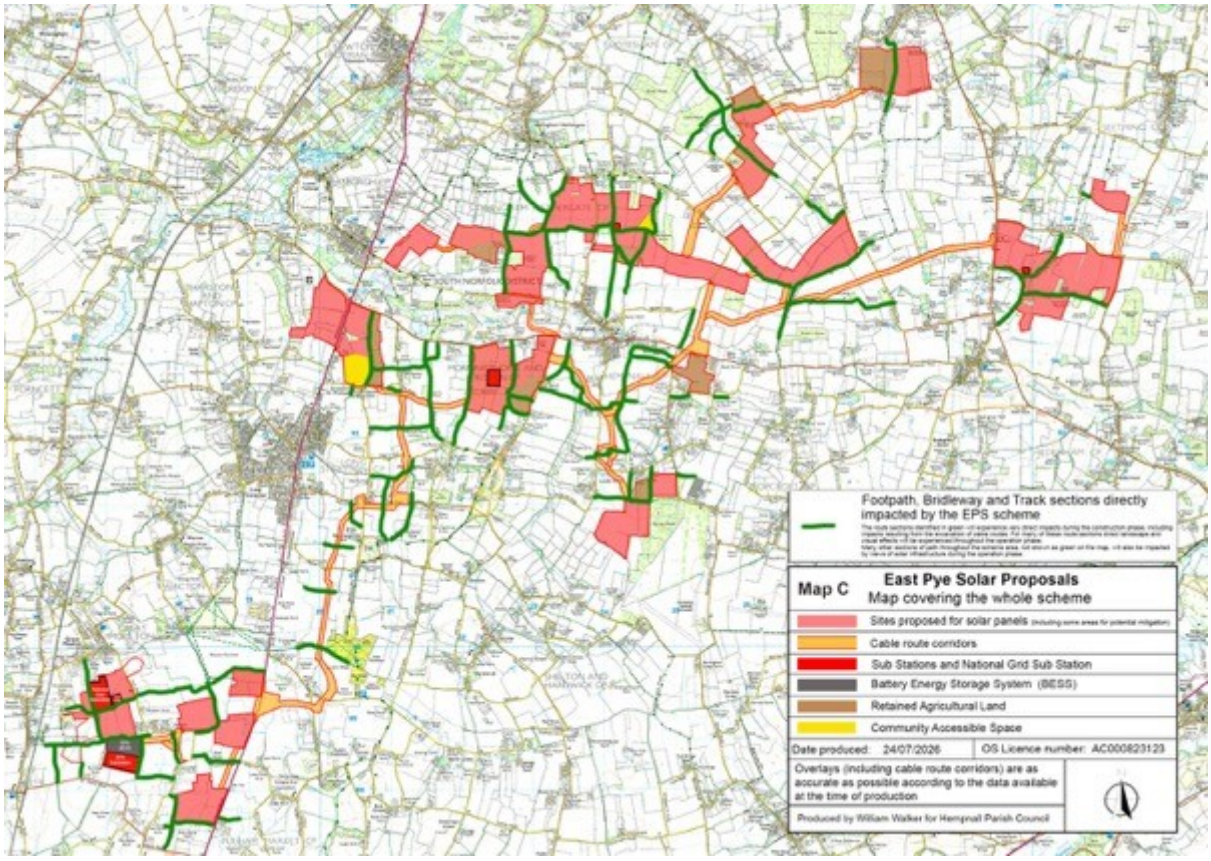
A route may be ‘not significant’ in EIA terms yet still be unacceptable to the highway authority, dependent on unsecured land or impossible to implement.

The Examining Authority should not allow the language of ‘not significant’ to obscure the unresolved physical, legal and operational constraints on construction.

11.16 Public Rights of Way and promoted routes are part of the deliverability constraint

The PRoW issue should not be treated as a separate recreational-amenity topic. The public-rights-of-way network is physically interwoven with the proposed access, Cable Route Corridor and internal haul-route system. Closures, diversions and managed crossings are therefore part of the construction logistics problem and part of the test of whether the Scheme can be delivered safely.

11.16.1 The application contains an unresolved discrepancy in the number of affected PRoWs



The Outline PRoW material refers to 84 PRoWs, while the Applicant's consultation record with NCC identifies 88 routes: 75 footpaths, 11 restricted byways and two bridleways.

That discrepancy requires explanation. It is not a trivial numerical issue because the affected network determines:

- which routes must be closed;
- which remain open under management;
- which require diversion;
- where haul-road and cable crossings occur;
- and which users are exposed to construction traffic.

The Applicant should provide one definitive schedule reconciling the 84 and 88 figures and identifying every definitive route, promoted route and permissive path affected by construction, replacement and decommissioning.

PRoW detailed design has also become a specific Examination issue. ExQ1 questions the extent to which detailed PRoW arrangements remain deferred until after consent. That matters because the Applicant's route, crossing and diversion strategy is not simply a matter of final signage: in some locations it determines whether users remain connected, whether diversions use roads carrying construction traffic and whether internal haul routes can operate safely.

The August 2026 NPPF gives this issue additional weight. Policy TR8 requires development proposals to protect and enhance the PRoW network, including through suitable diversions agreed with the highway authority, and expressly supports new direct and circular connections between local and long-distance footpaths, bridleways and cycle routes. A technically available diversion should therefore not automatically be treated as equivalent where it severs a circular route, removes a useful connection or transfers users onto a materially less safe or less accessible route.

11.16.2 The Scheme depends on closures and managed crossings across a wide network

The Applicant proposes a mixture of:

- temporary closures;
- temporary diversions;
- open-but-managed routes;
- controlled crossing points;
- signage;
- marshals;
- reduced vehicle speeds;
- and temporary traffic management.

Some routes may remain legally open while construction vehicles cross them. Others may be closed for periods ranging from days to months. The consultation record acknowledges that closures may extend for substantial periods and that detailed phasing would be determined later.

That creates a deliverability issue in two respects.

First, construction cannot proceed safely unless the required closure, diversion or crossing arrangement is available at the time each work front reaches it.

Second, the routes cannot all be managed independently. The closure of one path may transfer users to another path or public road already affected by construction traffic. A diversion may itself cross another work area or depend upon a road that NCC considers unsuitable for increased use.

The final PRoW plan must therefore be linked directly to the construction programme and route strategy.

11.16.3 Open-but-managed routes remain exposed to construction conflict

The Applicant’s approach includes keeping some PRoWs open while requiring construction vehicles to yield, travel at low speed, use marshals or stop while users pass.

That may be workable at a limited, low-frequency crossing. It is more problematic where:

- the crossing serves a major internal haul route;
- HGV movements are frequent;
- users include children, older people or disabled people;
- the route is used by equestrians;
- visibility is limited;
- or several crossings occur along the same path.

An open route is not unaffected merely because it remains legally available. Repeated stopping, noise, mud, fencing, barriers, vehicle presence and marshal intervention may materially alter the safety and experience of the route.

For equestrians, the issue is particularly acute. Horses may react unpredictably to:

- large vehicles;
- air brakes;
- reversing alarms;
- temporary fencing;
- machinery;
- dust;
- and sudden movements.

A generic instruction that vehicles should stop or yield does not provide a route-specific assessment of whether there is sufficient refuge, sight distance and separation.

11.16.4 Road-based diversions may transfer users onto more hazardous routes

The Applicant proposes that some diversions may use existing roads.

That approach requires careful scrutiny because the affected roads include:

- narrow lanes without footways;
- roads carrying construction HGVs;
- roads with limited visibility;
- village streets;
- and routes already subject to temporary traffic management.

A road-based diversion may maintain formal connectivity while materially reducing safety and amenity.

For each proposed road diversion, the Applicant should identify:

- the road length;
- footway provision;
- speed limit and measured speed;
- construction traffic forecast;
- lighting;
- crossing points;
- suitability for wheelchairs and mobility scooters;
- suitability for children;
- and whether equestrians can safely use it.

A diversion cannot be treated as equivalent merely because it connects the same endpoints.

11.16.5 Boudicca Way is a promoted route of particular importance

Boudicca Way is a long-distance promoted route of approximately 58 km between Norwich and Diss. Chapter 11 records that it runs adjacent to Site 7A on Fairstead Lane and interacts with the Cable Route Corridor.

NCC's consultation response raises specific concern about the effect on Boudicca Way. It records that the route may be closed for a considerable period, that the likely diversion could remove a loop through Tasburgh and that a clear assessment and mitigation plan are required.

The issue is not limited to temporary inconvenience. Boudicca Way is part of the recreational identity and connectivity of the area. Its interaction with Fairstead Lane also links the PRoW issue directly to the unresolved Sites 7–9 access strategy.

If Fairstead Lane carries construction traffic, the trail is exposed to increased HGV conflict and managed closure. If NCC's preferred internal CRC8 solution is adopted, the internal route may create different crossings or diversions elsewhere. Either way, the final access solution must be assessed together with the promoted-route network.

This is especially relevant under current NPPF Policy TR8 because the policy expressly recognises the value of direct and circular connections between local and long-distance routes. The potential loss of the Tasburgh loop or degradation of a promoted route should therefore be assessed as a loss of network function and recreational connectivity, not merely as additional walking distance during a temporary diversion.

11.16.6 Via Beata must also be treated as a promoted route receptor

The application material identifies Via Beata as another promoted route affected by the Scheme area.

As with Boudicca Way, the relevant effect is not adequately captured by assessing isolated crossing points. The experience of a long-distance route is cumulative. Users move through the landscape and encounter:

- fencing;
- solar arrays;
- compounds;
- traffic;
- closures;
- diversions;
- temporary surfacing;
- and changing landscape character.

The Applicant should provide route-level plans for Via Beata and Boudicca Way showing:

- every construction interface;
- closure duration;
- diversion;
- managed crossing;
- construction traffic route;
- and replacement-phase impact.

11.16.7 Medium-term closures close to settlements are particularly serious

The Applicant categorises many construction effects as temporary and medium term. For affected communities, however, a closure lasting weeks or months may sever habitual walking routes to:

- neighbouring villages;
- schools;
- shops;
- recreation;
- churches;
- bus stops;
- and local countryside.

The effect is more serious where the route provides one of few traffic-free alternatives to narrow roads.

NCC’s Relevant Representation states that the experience of recreational users of PRoWs and promoted routes may be understated, particularly because of the large scale and medium-to-long-term effect of closures and the major change in the surrounding landscape.

NCC also recommends that closures should occur only where strictly necessary, that suitable alternative routes should be provided and that users should receive clear communication.

Those are not matters that can be satisfied through a generic post-consent statement. The Applicant must identify the necessity, duration and alternative for each material closure.

11.16.8 PRoW management must be coordinated with construction phasing

The dispersed construction programme may create several simultaneous PRoW effects. A path may be affected by:

- panel construction;
- cable trenching;
- internal haul-road use;
- highway widening;
- and later reinstatement.

The Applicant should therefore provide a phasing plan showing:

- when each PRoW is affected;
- which work causes the effect;
- whether another nearby route is simultaneously closed;
- whether the diversion is available;
- and whether construction traffic uses the diversion road.

Without that coordination, a theoretically available diversion may itself be blocked or unsafe when needed.

11.16.9 The NCC-required internal haul strategy may increase PRoW conflicts

NCC’s preferred route architecture relies more heavily on CRCs and internal haul roads. That may reduce HGV movements on some public lanes, but it may increase direct crossings of:

- footpaths;
- restricted byways;
- bridleways;
- promoted routes;
- and open-access countryside.

That trade-off has not been fully assessed.

The Applicant cannot assume that moving vehicles off the public road network is environmentally neutral. The internal route may create:

- new path closures;
- repeated managed crossings;
- greater equestrian risk;
- habitat fragmentation;
- watercourse crossings;
- and drainage effects.

The PRoW consequences of NCC’s preferred solution must therefore be assessed as part of determining whether that solution is feasible.

11.16.10 Replacement and decommissioning repeat the PRoW interference

The Outline OTMP and PRoW material contemplate reusing construction-style management during panel and equipment replacement. The measures include signage, marshals, yielding, reduced speeds and keeping routes clear only so far as practicable. The replacement phase would therefore recreate many of the same conflicts with PRoWs and permissive paths as the initial construction period.

The PRoW burden is consequently not confined to one initial build-out. It is embedded within the operational life of the Scheme.

11.16.11 Conclusion on PRoW deliverability

The PRoW network forms part of the physical construction environment. It cannot be treated as a separate amenity receptor whose effects will simply be managed later.

The Applicant must demonstrate:

- the definitive number and location of affected routes;
- final closure and diversion arrangements;
- safe managed crossings;
- coordination with the construction programme;
- protection of equestrians and vulnerable users;
- and the implications of the final internal haul-route strategy.

The central point is:

If the internal haul-route solution required by NCC intensifies conflicts with PRoWs, ecology or watercourses, those effects must be assessed as part of the feasibility of that solution, not deferred to the final PRoW plan.

11.17 Highway works create unresolved ecological, landscape, drainage and heritage consequences

The Applicant’s transport case cannot be assessed in isolation. The works required to make routes usable may themselves cause effects falling within ecology, landscape, water, flood risk and cultural heritage. A revised highway strategy cannot therefore be assumed to be environmentally neutral.

11.17.1 Arboriculture and hedgerows

Visibility splays, passing places, carriageway widening, AIL clearances, oversailing and access improvements may require pruning or removal of roadside trees and hedges.

NCC’s June 2026 Relevant Representation states that the Preliminary Arboricultural Impact Assessment does not appear to assess visibility splays, AILs or highway works required to accommodate increased traffic. It also records that there is no schedule quantifying the tree works required for visibility or highway improvement and warns that the impacts on narrow rural roads could be significant and unacceptable.

NCC further states that where trees or hedges are outside the Applicant’s control, assurance is needed that their owners can accommodate the proposed work and that adequate mitigation exists.

This omission is important because roadside vegetation is not merely visual screening. It may perform several functions simultaneously:

- historic enclosure of lanes;
- bat commuting habitat;
- nesting habitat;
- ecological connectivity;
- drainage-bank stabilisation;
- landscape character;
- and screening of listed buildings or conservation areas.

The Applicant should provide one transport-related arboricultural schedule identifying:

- every tree and hedge affected;
- the work required;
- the route or access necessitating it;
- ownership;
- ecological value;
- heritage contribution;
- and replacement or management measures.

Without that schedule, the environmental cost of making the routes usable remains unknown.

11.17.2 Ecology

Highway and haul-route works may affect ecological receptors that are not adequately captured by a general transport assessment.

NCC identifies the following relevant constraints:

- Roadside Nature Reserves;
- species-rich green lanes;
- County Wildlife Sites;
- roadside trees and hedges;
- and protected species, including nationally important barbastelle activity.

NCC also notes that older mapping may omit newer Roadside Nature Reserves and warns that trees and hedges alongside them may be affected by ancillary works. It further identifies unvegetated but species-rich PRoWs, informally

described as green lanes, as ecologically important even where they are not formally designated.

These constraints are directly relevant to:

- visibility-splay clearance;
- temporary passing places;
- verge reinforcement;
- widening;
- internal haul roads;
- temporary compounds;
- AIL route works;
- and PRoW diversions.

The ecological implications may include:

- loss of hedgerow connectivity;
- disturbance or lighting of bat corridors;
- loss of species-rich verge;
- fragmentation of green lanes;
- sediment or pollution effects on adjacent ditches;
- and disturbance to protected species.

The issue is especially acute where the alternative route required by NCC uses CRCs and internal haul routes. Those routes may reduce public-road traffic but transfer construction into habitats and field boundaries previously subject only to cable works.

The Applicant must therefore show, route by route, whether the required highway and internal works have been included in:

- the habitat-loss calculations;
- protected-species assessment;
- arboricultural assessment;
- BNG metric;
- OLEMP;
- and DCO plans.

A route cannot be treated as mitigation if its ecological effects have not been assessed.

11.17.3 Drainage and flood risk

New and widened access tracks, haul roads, compounds, passing places and highway works create compacted or impermeable surfaces.

The LLFA has repeatedly rejected any assumption that compacted stone tracks are functionally permeable. It explains that Type 1 material may behave almost like concrete when compacted and that even more open-graded material is not fully permeable. It therefore requires adequate space for sustainable drainage and a viable discharge location for each access road. It also states that widening or improving existing tracks should be treated as new impermeable access-road area.

The LLFA’s later comments repeat that new and upgraded access tracks are likely to generate surface-water runoff and that the Applicant has not identified the amount, scale or extent of the internal tracks, access tracks and haul roads.

This is directly relevant to the transport strategy because the NCC-required internal route architecture may involve extensive new haul-road construction.

The Applicant must demonstrate for every significant transport surface:

- area and construction type;
- existing flood pathway;
- drainage direction;
- attenuation volume;
- outfall;
- maintenance;
- and effect on neighbouring land.

The LLFA also warns that site-access routes may need to be revised because of existing surface-water flood risk on the highway network. That means flood risk may affect not only the environmental acceptability of the works but also whether the route remains available during construction.

Passing places and verge widening create the same issue. They may interrupt roadside ditches, displace overland flow or require culverts. A passing place cannot be treated as secured mitigation unless its drainage feasibility has been demonstrated.

11.17.4 Cultural heritage

Construction and AIL routes pass through a rural historic landscape containing conservation areas, listed buildings, historic village streets, hedged lanes, banks and other character-defining features.

The Applicant’s own transport methodology recognises conservation areas and listed buildings as sensitive receptors. Yet the highway works needed to facilitate construction have not been comprehensively assessed in heritage terms.

Potential works include:

- hedge and tree removal;
- bank lowering;
- verge widening;
- relocation of signs;
- temporary signal installations;
- oversailing of walls or private land;
- removal of street furniture;
- road closures;
- and junction alterations.

Those interventions may affect:

- the character and appearance of conservation areas;

- the setting of listed buildings;
- historic road alignments;
- traditional banks and boundaries;
- and the visual enclosure of village lanes.

The temporary character of an intervention does not make it harmless. Removal of a mature hedge, historic bank or tree may have long-term or irreversible effects even if the AIL movement itself occurs once.

The Applicant should therefore provide a heritage route assessment identifying:

- each conservation area traversed;
- each listed asset or setting affected;
- each historic lane or boundary feature;
- the physical work required;
- duration;
- reinstatement;
- and residual effect.

This is particularly important where revised routeing or NCC-required internal connections would move traffic or works onto corridors not assessed in the existing heritage chapter.

The final independent heritage evidence confirms that highway and abnormal-load effects materially widen the heritage impact beyond the solar fields themselves. The transport solution should therefore be reconciled directly with the final heritage assessment before any route is treated as environmentally acceptable. Where the transport strategy changes during Examination, the Applicant should demonstrate whether the revised route affects any additional designated asset, conservation area, historic lane or setting and whether the heritage conclusions remain valid.

11.17.5 Watercourses and HDD

NCC’s formal transport position requires HDD beneath all affected A and B roads. At the same time, its ecology comments raise concern about whether HDD is appropriate in locations containing numerous flowing and still waterbodies, including the Fritton Grange Meadows and Lower Spring Wood areas.

HDD is therefore not a risk-free answer to highway and ecological conflict.

The method may require:

- launch and reception pits;
- drilling compounds;
- fluid storage;
- water supply;
- spoil handling;
- access for rigs and support vehicles;
- and contingency measures for frac-out or inadvertent drilling-fluid release.

These works may themselves require internal roads and compounds near sensitive watercourses or habitats.

The NCC-required use of CRCs as haul routes adds a further interaction. A corridor may need simultaneously to accommodate:

- cable installation;
- HDD compounds;
- construction traffic;
- drainage;
- and ecological buffers.

The Applicant must demonstrate that these uses are physically compatible and that one does not displace another into an environmentally sensitive area.

The same applies to internal haul-road watercourse crossings. A route may require:

- temporary bridges;
- culverts;
- open crossings;
- or trenchless techniques.

Each crossing must be identified and assessed for:

- flow capacity;
- sediment;
- pollution;
- ecology;
- fish and invertebrate passage;
- flood risk;
- and restoration.

The application cannot assume that moving traffic onto internal routes solves the highway problem without creating a water-environment problem.

11.17.6 Revised routeing may alter the environmental assessment

The transport strategy evolved materially before submission and remains disputed. If the Applicant now adopts:

- CRC8 for Sites 7–9;
- CRC14 for Site 10E;
- consolidated Site 1–2 haul routes;
- or different AIL routes,

the effects may differ from those assessed in the submitted ES.

A revised route may change:

- the trees and hedges affected;
- the PRoWs crossed;
- the watercourses encountered;
- the drainage area;

- the conservation areas traversed;
- the residential receptors exposed;
- and the habitats lost.

The Applicant should therefore provide a cross-topic environmental reconciliation for every material route revision. It should identify whether supplementary environmental information is required and whether further consultation is necessary.

The central conclusion is:

A revised highway strategy cannot be assumed to be environmentally neutral. The highway solution must be assessed together with the arboricultural, ecological, drainage, water and heritage consequences required to make it physically usable.

11.18 Replacement, repowering and decommissioning repeat the unresolved transport problem

The transport and access case must be assessed across the whole life of the Scheme. The Applicant’s own documents show that the operational period includes major replacement activity resembling a second construction phase, followed eventually by decommissioning. The unresolved access problem is therefore not confined to the initial 24-month build-out.

11.18.1 Full solar-panel replacement creates a second major traffic phase

The Outline OTMP assumes that the solar panels will be replaced once during the operational life, likely after approximately 40 years, over a period of up to 24 months.

That is not routine maintenance. It requires:

- delivery of replacement panels;
- removal of existing panels;
- packaging and waste movements;
- cranes or lifting plant;
- workforce transport;
- laydown areas;
- compounds;
- and repeated access across the Scheme.

The Outline OTMP’s reasonable worst case is described as an average of 50 HGV arrivals per day, meaning 100 daily HGV movements when arrivals and departures are combined. It also includes replacement-worker traffic averaging approximately 43 cars and six shuttles per day, rising in the peak month to approximately 80 cars and ten shuttles.

That level of activity is construction-like in scale. It cannot properly be treated as an incidental operational effect.

11.18.2 The BESS may be replaced repeatedly

The Applicant states that the BESS could be replaced up to five times during the 60-year operational period.

Each replacement cycle may require:

- removal of battery containers;
- delivery of replacement units;
- heavy lifting;
- abnormal or heavy loads;
- electrical plant;
- waste and hazardous-material transport;
- temporary compounds;
- and emergency and safety arrangements.

The application does not identify:

- the duration of each replacement cycle;
- the maximum vehicle numbers;
- the dimensions and weight of replacement units;
- the route;
- the compound;
- or the interaction with other simultaneous maintenance.

Repeated BESS replacement therefore creates a series of future traffic events whose access strategy is not presently fixed.

11.18.3 Transformers may require replacement

The Scheme assumes that transformers may have a design life of around 30 years and may require replacement during operation.

Transformer replacement is particularly important because transformers may be AILs. The unresolved port, SRN and local AIL routeing therefore affects not only initial construction but also future operation.

A route that is marginally available during the initial build may no longer be available decades later because of:

- changed road geometry;
- bridge restrictions;
- development;
- vegetation;
- traffic levels;
- or loss of temporary land.

The Applicant has not demonstrated how transformer access will be preserved over the Scheme life.

11.18.4 Replacement relies on reuse of the construction access network

The Outline OTMP indicates that replacement traffic will reuse the construction-phase access network and identifies retained access across the Scheme, including roads such as Frith Way, Fairstead Lane, Broaden Lane, Bussey's Loke, Fylands Road, Woodton Road, Littlebeck Lane and Harvey Lane.

This is highly material.

Several of those roads are already disputed or constrained during initial construction. The Applicant is effectively proposing that the same access problem will persist for decades and recur during replacement.

If NCC's preferred internal-haul strategy is required, the Applicant must explain:

- which internal haul roads will remain;
- who will maintain them;
- how drainage will be maintained;
- whether they remain available across agricultural land;
- and whether they can carry replacement traffic after decades of operation.

If the internal roads are removed after construction, replacement may fall back onto public roads that NCC presently considers unsuitable.

The operational access strategy therefore needs to be fixed now at a sufficient level to show that replacement is possible.

11.18.5 The retention of access and mitigation may create long-term land and environmental effects

The Applicant often characterises highway mitigation and internal access as temporary construction measures. The replacement strategy suggests otherwise.

If access points, haul roads, visibility splays, passing places or vegetation clearances must remain available for:

- full panel replacement;
- repeated BESS replacement;
- transformer replacement;
- emergency response;
- and decommissioning,

they may need to be retained or repeatedly reinstated throughout the 60-year life of the Scheme.

That may result in long-term effects on:

- agricultural use;
- soils;
- hedgerows;

- drainage;
- landscape character;
- and PRoWs.

The Applicant should identify which access measures are:

- temporary for initial construction;
- retained throughout operation;
- reinstated only before replacement;
- or permanent.

Without that schedule, the duration of the transport infrastructure and its environmental effects remains unclear.

11.18.6 Replacement routeing and mitigation are deferred

The Outline OTMP is a live outline document. It states that detailed arrangements will be updated before scheduled replacement to reflect the then-current road network, vehicle routes and operational requirements. It also states that the vehicle estimates are indicative and may be refined. If construction routes are no longer suitable, alternatives will be agreed later with the highway authority.

That is a significant deferral.

The Applicant is not presently demonstrating a replacement route. It is preserving the ability to select a future route after the road network, environmental conditions and land-control position have changed.

A future alternative may require:

- different public roads;
- new land;
- renewed vegetation removal;
- new passing places;
- different PRoW closures;
- or additional environmental assessment.

The DCO should not assume that such a route will exist simply because a future OTMP will be prepared.

11.18.7 Replacement worker travel is also deferred

The Outline OTMP envisages a later Replacement Activities Worker Travel Plan. Car sharing, shuttle buses and sustainable travel are identified at outline level, but the final arrangements will be produced much later.

The same uncertainty identified for initial construction therefore recurs:

- workforce origins;
- modal split;
- shuttle routes;

- parking;
- and junction effects

are not fixed.

Given that replacement may involve substantial daily worker traffic, this is not a minor operational detail.

11.18.8 PRoW impacts recur during replacement

The Outline OTMP imports construction-style PRoW controls into the replacement phase. These include:

- signage;
- yielding;
- marshals;
- reduced speeds;
- and keeping routes clear so far as practicable.

The PRoW plan similarly contemplates managing replacement effects in the same way as construction.

The initial PRoW interference is therefore not a one-off event. It may recur during:

- panel replacement;
- BESS replacement;
- transformer works;
- and final decommissioning.

Promoted routes and local paths may consequently experience repeated periods of construction-style management over many decades.

11.18.9 Decommissioning is assumed rather than demonstrated

Chapter 11 states that decommissioning traffic will be no worse than construction and therefore concludes that decommissioning effects are not significant.

The cumulative decommissioning assessment is not undertaken because the position more than 60 years in the future is considered too speculative.

That reasoning does not demonstrate deliverability.

Decommissioning may require:

- removal of panels;
- removal of BESS units;
- removal of substations and ancillary equipment;
- cranes;

- excavation;
- waste and recycling traffic;
- removal of piles and foundations;
- cable works;
- and reinstatement.

The Applicant has not provided a future baseline showing:

- which roads will remain;
- their structural condition;
- whether retained accesses will still be available;
- whether bridges remain suitable;
- what settlements or receptors exist;
- or which other infrastructure projects may be decommissioned at the same time.

It is therefore not possible to conclude confidently that the same routes and controls will remain suitable.

BEPS does not suggest that the precise highway network six decades from now can or should be predicted. The reasonable requirement is that the DCO and decommissioning strategy identify a robust worst-case transport envelope and establish how future route suitability will be demonstrated before major removal works commence, without assuming that the construction routes will automatically remain available.

11.18.10 Decommissioning may not simply reverse construction

The statement that decommissioning broadly mirrors construction overlooks important differences.

At construction, components arrive in controlled packaging from suppliers. At decommissioning:

- equipment may be damaged or degraded;
- waste streams may be more complex;
- loads may be less predictable;
- environmental controls may differ;
- recycling destinations may be dispersed;
- and additional excavation may be required.

Some infrastructure is also proposed to remain, including National Grid infrastructure and certain below-ground elements. The resulting access and restoration strategy may therefore not be a simple reverse sequence.

The Applicant should provide a decommissioning traffic scenario based on the actual maximum development envelope, not merely an assertion that effects will be no worse.

11.18.11 Whole-life transport deliverability must be demonstrated

The full transport burden comprises:

1. initial construction;
2. routine operation and maintenance;
3. full panel replacement;
4. repeated BESS replacement;
5. transformer and other major equipment replacement;
6. emergency works;
7. and final decommissioning.

Each phase depends on access through the same constrained rural landscape.

The Applicant should therefore provide a whole-life access schedule identifying:

- retained accesses;
- retained internal roads;
- future AIL routes;
- maintenance responsibilities;
- replacement traffic assumptions;
- PRoW controls;
- vegetation-management requirements;
- drainage maintenance;
- and decommissioning routes.

The conclusion should be clear:

Transport deliverability must be demonstrated across the full project life, not only for the initial 24-month construction period. The current application does not do so. It assumes that future routes will be available, that construction mitigation can be reused and that later management plans will resolve whatever changes arise. That is not a demonstrated whole-life transport solution.

11.19 Cumulative traffic assessment is incomplete at both local and strategic levels

The cumulative transport assessment must address not merely additional percentage traffic on individual links, but whether several major developments can operate simultaneously through the same strategic junctions, rural corridors and constrained local routes.

National Highways has already required a more granular assessment of cumulative construction traffic at the affected Strategic Road Network junctions. That concern is particularly important at the A47/A140 interface, through which substantial East Pye construction and worker traffic would pass.

The wider development context includes Norwich to Tilbury and other major energy, housing and infrastructure projects capable of overlapping with East Pye or relying upon common sections of the A47, A140, B1527 and associated local network. The relevant assessment should therefore identify

realistic construction periods, common junctions and routes, HGV and worker traffic, and the consequences of overlapping peak activity.

The August 2026 NPPF now expressly requires assessment of reasonable future transport scenarios, including impacts at relevant times of day and potential cumulative impacts. A single preferred programme or broad link-level percentage comparison is therefore insufficient where credible alternative scenarios would produce materially different junction or local-road conditions.

Cumulative effects also extend beyond vehicle numbers. Simultaneous projects may compete for road space, require overlapping temporary traffic management, affect the same PRoWs, compound community severance and constrain the ability to divert traffic when one route becomes unavailable.

The cumulative question is therefore whether East Pye remains deliverable under reasonable future network conditions, not merely whether its own forecast traffic can be accommodated in isolation.

11.20 The draft DCO and Requirement 15 do not secure a deliverable solution

Requirement 15 can legitimately control the detailed implementation of an access and traffic strategy whose essential routes and environmental consequences have already been demonstrated. It should not be used to select materially different routes or discover after consent whether the Scheme can be accessed safely.

National Highways has requested strengthening of Requirement 15, including express recognition of its role where the Strategic Road Network is affected. BEPS agrees that the Requirement should distinguish clearly between NCC and National Highways and should secure the traffic assumptions on which the ES relies.

At minimum, the final control should secure:

- agreed construction routes;
- route-specific traffic limits where material;
- worker-traffic controls;
- monitoring and corrective action;
- required holding and call-forward arrangements;
- highway and PRoW protection;
- National Highways involvement where the SRN is affected;
- and a mechanism preventing a materially different route from being introduced through ordinary post-consent approval without consideration of its environmental effects.

The crucial distinction is between management and design. A later CTMP may regulate timing, signage, marshal arrangements and operational detail on an established route. It should not provide the mechanism by which a fundamentally different access solution is selected after development consent has already been granted.

11.21 Deliverability matrix: the evidence the Applicant must provide

The transport evidence is presently fragmented across the Transport Assessment, Outline CTMP, Access and PRoW Plans, highway correspondence, AIL material, land documents, environmental chapters and consultation responses. That makes it difficult to determine, for any individual site or major component, whether the complete access solution is physically available, legally secured, environmentally assessed and acceptable to the relevant highway authority.

This is particularly problematic because the transport strategy has evolved repeatedly. Some routes assessed by the Applicant remain unacceptable to Norfolk County Council; some alternative routes required by NCC depend upon greater use of Cable Route Corridors and internal haul routes; National Highways continues to require further work on strategic-junction effects, traffic controls and abnormal-load routeing; and several important elements remain dependent upon later detailed design or agreement.

The Examination therefore requires a single consolidated Transport and Access Deliverability Matrix covering every principal Site, sub-site, major electrical component, construction compound and material Cable Route Corridor work.

For each site or work, the matrix should identify:

- the Site, sub-site or Work No.;
- the construction activity to be undertaken;
- the access point relied upon;
- the complete public-road route;
- any internal haul route or Cable Route Corridor relied upon;
- forecast daily and peak-hour HGV demand;
- maximum relevant vehicle dimensions and weight;
- whether abnormal indivisible loads are required;
- the current position of NCC and, where relevant, National Highways;
- the highway works necessary to make the route usable;
- the land ownership and DCO powers relied upon;
- required visibility splays;
- required passing places;
- bridge, culvert, structural and weight constraints;
- interactions with PRoWs and promoted routes;
- schools, nurseries and residential receptors;
- conservation areas, listed buildings and other heritage receptors;
- trees, hedgerows, Roadside Nature Reserves and other ecological constraints;
- watercourses, drainage features and surface-water flood constraints;
- any road closure or temporary traffic-control requirement;
- emergency-access arrangements;
- other cumulative developments using the same route;
- the present status of agreement;
- outstanding technical or environmental evidence;
- and the consequence if the route cannot be used.

The matrix should not be treated as a further traffic-management document. Its purpose is different. It should demonstrate, in one place, that the route needed to construct each material component of the Scheme actually exists within the authorised envelope and can perform the function assigned to it.

That is necessary because route feasibility currently depends upon a chain of assumptions which are often considered separately. A swept-path drawing may demonstrate theoretical vehicle geometry but not land control. A road may be within the Order Limits but remain unacceptable to NCC. An internal haul route may reduce use of a constrained lane but require additional watercourse, PRoW or ecological crossings. A passing place may improve vehicle conflict but require third-party land or vegetation removal. A route may be available to ordinary HGVs but incapable of carrying the AIL necessary for the substation or transformer works.

Those matters must therefore be considered cumulatively for each route rather than answered in isolation.

The need for this approach is reinforced by the Examination evidence. The Krons, abnormal-load routeing, the Site 7 interaction with the high-pressure gas transmission pipeline and detailed PRoW arrangements have all become live examination issues. These are precisely the types of constraint which cannot be understood properly from link-flow percentages alone.

The August 2026 NPPF also reinforces the need for a robust and integrated transport assessment. Policy TR6 requires significant movement-generating development to be assessed against reasonable future scenarios, relevant times of day and cumulative effects, while associated travel plans should identify fallback measures where the assumed measures do not perform as expected. A route-specific matrix would allow the ExA to test whether those requirements are satisfied in practice rather than merely asserted in outline documents.

The matrix should distinguish expressly between four categories:

1. routes and works accepted and demonstrated;
2. routes accepted in principle but dependent upon detailed design;
3. routes still subject to unresolved objection or technical uncertainty;
4. routes or alternatives which have not yet been shown to be available within the existing DCO envelope.

That distinction is essential. The Applicant should not be permitted to present all outstanding transport matters as though they were equivalent forms of detailed design. Some are ordinary implementation issues. Others determine whether the Scheme can physically be constructed at all.

For example, the precise position of a marshal on an already accepted route may properly be left to the final CTMP. Whether Sites 7–9 can be reached through CRC8 without new land, unassessed watercourse crossings or unacceptable ecological effects is a different question. Likewise, final signage for an AIL movement is implementation detail; the existence of an end-to-end route capable of carrying the indivisible load is a prerequisite to construction.

The same applies to the Site 7 gas-pipeline crossing. If an internal haul route depends upon crossing or interacting with the high-pressure transmission pipeline, the matrix should identify the crossing location, vehicle loading, protection works, pipeline-operator requirements, land powers and consequence if that crossing cannot be approved. That matter cannot safely disappear into a generic later CTMP.

The Applicant should therefore provide the completed matrix before the close of Examination and maintain it as a controlled document. Any subsequent change to a route should require the matrix to be updated so that the ExA can see immediately whether the change affects land powers, environmental receptors, highway-authority agreement or the assessed traffic case.

The purpose of this exercise is not bureaucratic. It is to answer the central question raised throughout this chapter:

For each material part of East Pye Solar, has the Applicant demonstrated an actual route by which the development can be constructed, rather than merely identified a series of possible routes and future management measures?

Until that question can be answered affirmatively across the Scheme, transport deliverability has not been demonstrated.

11.22 The decisive alternatives test

The unresolved transport dispute ultimately requires the Applicant to choose between the routeing strategy it submitted and the materially different routeing strategy required by Norfolk County Council. It should not be permitted to preserve both possibilities through an open-ended CTMP. For every disputed site cluster, the Applicant should identify clearly:

- the route assessed in the submitted application;
- the alternative route now required or preferred by NCC;
- whether that alternative lies wholly within the Order Limits;
- whether the necessary works are authorised by the draft DCO;
- whether the Applicant controls, or seeks sufficient powers over, all necessary land;
- whether the route has been assessed environmentally;
- whether it can accommodate the forecast traffic and vehicle dimensions;
- whether all highway, watercourse, PRoW, utility and ecological crossings are technically feasible;
- whether NCC accepts the route in principle;
- and what the Applicant proposes if neither the submitted route nor the alternative proves acceptable.

That test should be applied separately to each materially disputed part of the Scheme.

For Sites 1 and 2, the question is whether the NCC-preferred single Station Road access and internal distribution through CRC2 and CRC3 can carry the required construction traffic and can be reconciled with the A140 crossing, cable installation, drainage, land powers and environmental effects.

For Sites 3–6, the Applicant must demonstrate whether the consolidated use of CRC5, CRC6 and the B1527 can accommodate the combined construction demand without introducing new highway, PRoW, water, ecological or programme conflicts.

For Sites 7–9, the issue is more fundamental. The submitted strategy relied substantially upon public-road routes including The Krons, Fairstead Lane, Shotesham Road, Woodton Road, Fylands Road, Bussey's Loke, Heath Road, Baxter's Lane, Market Lane and Littlebeck Lane. NCC does not support that overall strategy and instead requires access through CRC8 and internal haul routes or Cable Route Corridors.

The Applicant must therefore demonstrate the complete CRC8 solution rather than relying upon the fact that a corridor exists on a plan. That demonstration should include the full internal alignment, haul-road construction, route capacity, road crossings, watercourse crossings, PRoW interactions, drainage, ecological effects, compatibility with cable installation, land rights, the interaction with the high-pressure gas pipeline at Site 7 and the programme by which the route would be available before dependent works commence. If those matters cannot be demonstrated, CRC8 cannot simply be assumed to cure the highway objection.

For Sites 10A–10E, the same test applies to NCC's preferred use of a single Harvey Lane access for Sites 10A–10D and CRC14 for Site 10E. The Applicant must show that the consolidated route carries the combined traffic, that the internal links exist within the authorised envelope and that reliance upon those links does not create new or materially different environmental effects.

Hall Lane provides a particularly clear example of why the alternatives test is necessary. NCC stated that it would not accept construction traffic using Hall Lane, yet Hall Lane remained within the submitted transport and anticipated AIL strategy. The Applicant must therefore take a clear position. Either Hall Lane remains necessary, in which case NCC's objection must be resolved, or it is removed, in which case the substitute route must be identified and assessed. It is not sufficient to leave both options available for later contractor selection.

The same principle applies to abnormal indivisible loads. The Applicant cannot rely simultaneously upon several possible ports, several possible Strategic Road Network routes and several possible local approaches without demonstrating that at least one complete port-to-site route is physically available and acceptable in principle. The existence of theoretical alternatives is not itself evidence of deliverability.

The correct test is therefore straightforward:

If the submitted route is unacceptable and the alternative route is unavailable, unassessed, outside the necessary land powers or environmentally constrained, the affected part of the Scheme has not been shown to be deliverable.

That does not mean that every engineering detail must be fixed before consent. It means that the Examination must distinguish between later refinement of a demonstrated solution and later discovery of whether a solution exists at all.

A final CTMP may properly determine matters such as precise delivery booking procedures, sign positions, marshal arrangements and other operational details on an established route. It should not

determine for the first time which route an entire development parcel will use, whether that route requires new land, whether it crosses a sensitive watercourse, whether it conflicts with a gas pipeline or whether NCC considers the public-road alternative unacceptable.

The alternatives test must also consider environmental effects. Moving traffic from a rejected rural road onto an internal haul route may improve highway safety while worsening effects upon soils, drainage, protected habitats, PRoWs or heritage. The alternative cannot therefore be characterised automatically as mitigation simply because it removes traffic from a public road.

That is particularly important under the current NPPF. Policy TR6 requires reasonable future transport scenarios and cumulative effects to be considered. The Applicant should therefore demonstrate not merely that an alternative route could theoretically operate in isolation, but that it remains workable under the construction programme, worker-traffic assumptions and cumulative network conditions relied upon in the assessment.

The ExA should require this test to be completed before the close of Examination for every material route still in dispute.

Where the Applicant can demonstrate an alternative which is wholly within the authorised envelope, technically feasible, environmentally assessed, supported by necessary land powers and accepted in principle by the relevant highway authority, detailed implementation can properly be controlled after consent.

Where it cannot, that uncertainty concerns the design and deliverability of the Scheme itself.

The controlling distinction is:

An examined route may be refined after consent. The existence of an acceptable route should not have to be discovered after consent.

That is the issue which the transport Examination now needs to resolve.

11.23 Overall conclusion: transport deliverability has not yet been demonstrated

East Pye Solar cannot be constructed without an extensive and integrated system of public-road routes, site accesses, internal haul roads, Cable Route Corridor connections, holding areas, road and PRoW crossings, traffic controls and abnormal-load routes. That system is not ancillary to the development. It is the physical means by which the solar arrays, BESS, substations, cable infrastructure and National Grid works would be delivered and built.

The submitted system is not accepted by the relevant highway authorities. Norfolk County Council states that the current transport strategy for Sites 7–10 does not adequately address the significant highway constraints, does not provide sufficient mitigation and ‘cannot be supported’. It requires construction traffic to enter and leave on roads of an appropriate standard and then use internal haul routes or Cable Route Corridors to reach individual development parcels. National Highways separately maintains a formal objection because the Applicant has not adequately assessed the affected Strategic Road Network

junctions, particularly the A47/A140 junction; has not provided a sufficiently granular cumulative assessment; has not secured traffic caps, monitoring and worker-travel controls; and has not established an acceptable abnormal-load strategy.

The alternative access architecture required by NCC has not itself been shown to be deliverable. The Applicant has not demonstrated, route by route, that the required internal haul roads lie wholly within the Order Limits, are supported by the necessary land and rights, have been designed for sustained HGV use, are compatible with cable installation and construction phasing, and can cross roads, PRoWs, watercourses and sensitive habitats without creating effects outside the submitted environmental assessment. This is particularly acute for Sites 7–9, where NCC requires access through CRC8 and internal connections while the submitted assessment relies on a dispersed public-road strategy using The Krons, Fairstead Lane, Shotesham Road, Woodton Road, Fylands Road, Bussey's Loke, Heath Road, Baxter's Lane, Market Lane and Littlebeck Lane.

Other essential matters remain unresolved. Hall Lane is retained in the final Transport Assessment for CRC Compound 2 and abnormal-load routeing despite NCC having stated that it would not accept construction traffic using that road. The port of entry and complete SRN and local routes for abnormal indivisible loads are not fixed. National Highways has expressly said that the AIL routes have not been determined and that an acceptable strategy should be established in principle before the DCO decision. Passing places, visibility splays, vegetation works, bridge and structural constraints, worker transport, route-specific traffic caps and the physical capacity of the proposed call-forward and one-HGV-at-a-time systems also remain dependent on later design or agreement.

These are not matters of minor implementation detail. They concern whether the principal components of the authorised development can reach their destinations, whether construction traffic can lawfully and safely use the necessary roads, whether the Applicant possesses the land and powers required to create the routes, and whether the proposed 24-month programme can operate through a constrained rural network under the restrictions relied upon in the assessment.

The distinction is fundamental. Management of an agreed and demonstrably available route is mitigation. Selection, invention or material redesign of a viable route after consent is unresolved scheme design.

The Applicant has not yet demonstrated, on the examination evidence presently available, a complete transport and access system by which East Pye Solar can be constructed as applied for. The transport strategy is contingent on future route selection, future engineering, future land availability, future environmental assessment and future agreement with highway authorities. That is not a deliverable scheme. Unless the Applicant can provide a complete, agreed and environmentally assessed access solution within the submitted DCO envelope, development consent should be refused.

11.24 Remedies sought

A. Primary remedy: refusal

BEPS's primary submission is that development consent should be refused unless, before the close of Examination, the Applicant demonstrates a complete, safe, environmentally acceptable and legally secured transport and access solution for every material part of the Scheme.

Refusal should follow where any material site or infrastructure component lacks an agreed and physically available access route; where the route required by NCC lies outside the Order Limits or depends on works not assessed in the ES; where abnormal-load delivery cannot be demonstrated from the selected port to the final site; where necessary highway land, visibility splays, passing places, vegetation clearances or third-party rights are unavailable; where effects on the A47/A140 or other strategic junctions remain unresolved; where the construction programme cannot be reconciled with the throughput of the proposed access system; or where the only apparent solution would require material post-application redesign.

That conclusion would not amount to refusing the Scheme because every construction detail has not been fixed. It would reflect the more basic failure to demonstrate the existence of a workable access system within the Scheme presented for consent.

B. Minimum further evidence required before consent could be considered

If the Examining Authority is not presently satisfied that refusal should follow, BEPS submits that no positive recommendation should be made until the Applicant supplies a consolidated and auditable transport deliverability case.

The starting point should be a single site-by-site and work-by-work Transport and Access Deliverability Matrix. It should identify for every principal site, substation, BESS area, National Grid work and Cable Route Corridor compound the assessed route, NCC's required route, public-road and internal links, daily and peak-hour HGV demand, maximum vehicle dimensions, abnormal-load requirements, highway-authority position, physical highway works, land ownership, DCO powers, visibility splays, passing places, bridge and weight constraints, PRoW interactions, environmental constraints, emergency-access arrangements, cumulative projects using the same route, agreement status and the consequence if the route cannot be used.

The Applicant should also provide a final routeing plan agreed in principle with NCC and National Highways, together with a written reconciliation of every remaining difference between the Applicant and those authorities. That reconciliation should distinguish clearly between matters agreed, matters agreed subject to detailed design, matters still under discussion and matters rejected.

Detailed feasibility evidence is required for the CRC8 and internal-haul-route solution demanded by NCC for Sites 7–9. That evidence should show the entire route to every affected parcel, the land and powers relied upon, route

construction, traffic capacity, drainage, watercourse crossings, PRoW crossings, ecological constraints, compatibility with cable installation and construction phasing, and the environmental documents in which the effects have been assessed.

Hall Lane should be removed from both ordinary construction and abnormal-load routeing unless NCC expressly confirms in writing that a defined use is acceptable. If Hall Lane is removed, the Applicant must identify and assess the substitute route rather than defer it to the final CTMP.

The abnormal-load case should be completed before consent is considered. It should identify each essential AIL, its dimensions, weight and axle configuration, the selected port of entry, the preferred SRN route, the local-road route, the final site access, all required physical interventions, structural checks, oversailing and overrun, temporary works, land rights and written highway-authority agreement in principle.

National Highways' concerns require proportionate junction modelling, particularly for the A47/A140 junction and any other SRN junction meeting or approaching its stated threshold. The assessment should include Personal Injury Collision analysis, peak and shoulder-period operation, worker traffic, route assignment and a granular cumulative model of overlapping major projects.

A programme-linked logistics and route-capacity model should reconcile the 24-month construction programme with route throughput. It should identify each site's duration, daily and peak-hour HGV demand, common-route dependencies, holding-compound capacity, one-at-a-time release times, vehicle turnaround, school restrictions, road closures, concrete pours, HDD works, AIL movements, worker traffic, weather disruption and programme-recovery assumptions.

The Applicant should provide final and enforceable daily, hourly and route-specific traffic caps, including separate controls for HGVs, worker vehicles and single-occupancy car trips. The monitoring system should include trigger levels, reporting, corrective action and authority involvement.

All passing places, visibility splays, highway-widening works, temporary signals, speed restrictions, bridge interventions, verge works, oversail and overrun areas should be fixed on plans and shown to lie within the Order Limits or existing highway land. The Applicant should identify ownership, the DCO power relied upon and any separate highway or landowner agreement required.

A complete transport-related arboricultural schedule is required, identifying every tree, hedge and bank affected by accesses, visibility splays, AIL clearances, passing places and highway improvements. That schedule should respond directly to NCC's concern that the ES does not quantify those works and that their effects on narrow rural roads may be significant and unacceptable.

Route-specific assessments should also be provided for conservation areas, listed-building settings, historic lanes, Roadside Nature Reserves, County Wildlife Sites, species-rich verges, bats, watercourses, drainage, flood risk, Boudicca Way, Via Beata and other affected PRoWs. Any revised route should be subject to a cross-topic environmental reconciliation to determine whether supplementary environmental information or further consultation is required.

The Construction Worker Travel Plan should be finalised to the extent necessary to support the traffic assessment, or at minimum should contain binding requirements for shuttle provision, parking, maximum single-occupancy trips, vehicle occupancy, monitoring and corrective action. This is necessary given the forecast peak workforce of up to 720 and National Highways' express request for single-occupancy controls.

The replacement and decommissioning case should be assessed as a whole-life access issue. The Applicant should identify which routes, accesses, internal haul roads, visibility splays and mitigation measures must remain available for full panel replacement, repeated BESS replacement, transformer replacement and eventual decommissioning.

All mapping should be updated and reconciled, including consistent depiction of the Long Stratton Bypass and the transport consequences of the approximately 1,800-home strategic growth programme and additional smaller developments in and around Long Stratton.

The raw ATC and MCC datasets should be disclosed, together with survey dates, processing methodology, hourly profiles and any normalisation or extrapolation applied. A final emergency-access and road-closure strategy should also demonstrate continued access for residents, emergency services, schools, the BESS, substations and other critical infrastructure during closures, flooding, breakdown or AIL movements.

C. Minimum DCO safeguards if consent is nevertheless contemplated

If development consent is nevertheless contemplated, the draft DCO must be materially strengthened. These safeguards would not cure the absence of a demonstrated route system, but they would be the minimum necessary to prevent unresolved transport design being transferred wholesale to the post-consent stage.

No material construction should commence until the final CTMP has been approved in relation to the affected network by NCC and, where the SRN is engaged, by National Highways. The drafting should require approval or written agreement, not merely consultation. National Highways has already requested express recognition in Requirement 15 of its responsibility for affected SRN junctions.

The approved CTMP should contain binding route, daily and peak-hour traffic caps. It should secure worker-vehicle limits, route assignment, delivery windows, holding arrangements, monitoring and predetermined intervention where limits are exceeded.

The DCO should prohibit material substitution of an examined route through an ordinary CTMP approval. Any revised route should first be shown to lie within the Order Limits and existing land powers, to have equivalent or lesser environmental effects, and to have written highway-authority approval. Where a route change would affect new land, receptors, watercourses, PRoWs, ecological

interests or heritage assets, it should require supplementary assessment and, where material, a formal change process.

Hall Lane and any other route expressly rejected by NCC should be prohibited unless NCC later agrees a clearly defined use in writing. No abnormal-load movement should occur until the complete port-to-site route, temporary works, structures assessment, police arrangements and highway-authority approvals are in place.

No passing place, visibility splay, widening, vegetation clearance, oversail, overrun, drainage work or temporary traffic installation should take place outside the Order Limits or without approved detailed plans demonstrating land control and environmental compliance.

Independent or independently auditable traffic monitoring should be required. The controls should include powers to suspend or reduce deliveries where traffic caps, route restrictions or safety measures are breached, rather than relying solely on retrospective reporting.

Pre-construction and post-use road-condition surveys should be required for every affected route, together with enforceable obligations to repair damage attributable to the Scheme. Structural monitoring should be included for any bridge, culvert or verge whose condition is material to route safety.

The CTMP and PRoW controls should protect emergency access, school and nursery periods, residential access, Boudicca Way, Via Beata and other affected routes. Closures should occur only where strictly necessary, alternative routes should be secured in advance and simultaneous closure of interconnected routes should be prohibited unless specifically approved.

Finally, the DCO should include a mechanism preventing later route revision from silently changing the assessed scheme. Where a proposed revision would materially alter traffic distribution, land take, environmental effects or the identity of affected communities, the undertaker should be required to demonstrate that an appropriate statutory change and consultation process has been followed.

These safeguards should not be mistaken for proof of present deliverability. Their purpose is to ensure that, if consent is granted despite the unresolved evidence, management remains confined to an access solution that has actually been examined.

The controlling distinction remains:

Management of an agreed route is mitigation. Selection and invention of a viable route after consent is unresolved scheme design.

Chapter 12: Noise and Vibration

12.1 Executive summary

The Applicant has not demonstrated that East Pye Solar can be constructed and operated without unacceptable noise and vibration effects. Chapter 12 identifies numerous exceedances of the Lowest Observed Adverse Effect Level (‘LOAEL’) and Significant Observed Adverse Effect Level (‘SOAEL’), including major adverse night-time effects from horizontal directional drilling (‘HDD’) and moderate adverse early-morning operational effects. It nevertheless repeatedly concludes that those effects are ‘not significant’ by relying on short duration, generic management measures and mitigation to be selected at detailed design stage. That is not a sufficiently transparent, fixed or precautionary evidential basis for consent.

The construction assessment is not reproducible. Appendix 12.2 provides source sound-power data and headline receptor results, but not the detailed calculation methodology, plant numbers, source locations, operating assumptions, attenuation factors or worked examples required to validate the predictions. South Norfolk Council’s independent acoustic reviewer therefore concluded that significant gaps remain in the transparency and justification of the construction noise and vibration calculations.

The operational model is similarly incomplete and may underpredict effects. It is based on example plant data and an example layout rather than fixed equipment. The Council’s reviewer identified unresolved questions about source geometry, frequency-dependent modelling, the treatment of large plant as point sources, the limited number of reflections used around the 4 m BESS barriers, and whether the full range of National Grid substation equipment has been included. The Applicant has therefore not shown that the submitted model represents the true operational worst case.

Mitigation is illustrative rather than demonstrably secured. The ES relies on reduced BESS fan duty, plant orientation, 4 m acoustic fencing, attenuators, enclosures, quieter inverter models and possible relocation or reorientation of plant. Yet the final equipment, precise locations and detailed attenuation measures remain unresolved. The assessment shows only that one assumed arrangement might achieve compliance if future mitigation performs as predicted.

The assessment also underweights the receiving environment. The Applicant’s own survey records typical night-time and early-morning background sound levels in the high teens and low 20s dB LA90 at numerous locations. In those conditions, relatively modest industrial noise can materially change the acoustic character of the area. Chapter 12 does not give sufficient weight to rural tranquillity, the lower evening sound climate or the particular intrusiveness of tonal and mechanically distinctive sound in a quiet landscape.

Finally, ecological effects are inadequately addressed. Chapter 12 is expressly concerned with human receptors and sends ecological noise and vibration effects to Chapter 8, while operational ecological noise was scoped out on the assumption that it would be unlikely to affect ecological receptors. That is not adequate for a Scheme which the Council records as lying within a nationally important bat landscape, with widespread barbastelle activity and multiple maternity-colony core sustenance zones overlapping the Order Limits. There is no dedicated, species-specific assessment of whether construction and operational noise may alter barbastelle roosting, commuting or foraging behaviour.

The overall conclusion is therefore unsound. Chapter 12 identifies material adverse effects but repeatedly neutralises them through duration criteria, generic mitigation and future design assumptions. Its conclusions should carry little weight unless the Applicant supplies a reproducible assessment, fixes the operational noise envelope and demonstrates that all mitigation is technically deliverable, environmentally compatible and enforceably secured.

12.2 Policy and legal framework

The Energy National Policy Statements remain the primary policy framework for this NSIP. The Noise Policy Statement for England, relevant British Standards, local policy and the August 2026 National Planning Policy Framework provide further relevant context for the assessment of noise and vibration.

The current NPPF is materially relevant. Policy P3 requires development to be appropriate for its location having regard to the likely effects, including cumulative effects, of pollution upon health, living conditions and the natural environment. It expressly requires consideration of the sensitivity of the surrounding population, including groups such as children and older people who may be particularly vulnerable. Development should avoid unacceptable noise effects on health and quality of life, mitigate and reduce potential adverse noise impacts to a minimum, not result in noise exposure producing a significant observed adverse effect, and maintain the character of tranquil areas which remain relatively undisturbed by noise from human sources.

South Norfolk Local Plan Policy DM 3.13 provides an important local expression of the same principles. It requires development to avoid incompatible neighbouring uses in terms of noise and vibration, directs attention to background sound levels at different times of day and night and requires protection of areas of rural tranquillity.

Those policies are particularly material at East Pye because the Applicant’s own monitoring identifies very low night-time and early-morning background sound levels at a number of rural receptors. The relevant assessment is therefore not simply whether an absolute numerical level is exceeded, but whether the Scheme would introduce adverse or distinctive sound into a sensitive receiving environment and whether those effects have been avoided or reduced as far as reasonably practicable.

The Applicant’s methodology does not apply those tests coherently. Chapter 12 permits major and moderate construction effects to be treated as not significant

where they do not exceed 10 days in 15 consecutive days or 40 days in six months. Duration is relevant to the EIA judgment about the overall significance of an effect, but it does not make a SOAEL exceedance acceptable. A short-lived impact may still be ‘present and disruptive’, cause sleep disturbance and diminish quality of life. Indeed, Chapter 12’s own noise exposure hierarchy states that SOAEL effects should be avoided.

The Applicant therefore risks conflating two related but distinct questions. The first is the EIA judgment about the overall significance of an effect, for which duration and frequency are relevant. The second is the policy response to a noise exposure which the Applicant itself places at or above SOAEL. Short duration may reduce the overall EIA significance attributed to an effect, but it does not remove the need to demonstrate that significant observed adverse effects have been avoided so far as reasonably practicable and that other adverse effects have been minimised. The August 2026 NPPF now makes that distinction particularly clear through Policy P3.

That error is most acute in the HDD assessment. Chapter 12 predicts major adverse night-time effects but calls them not significant because the works are expected to last one or two days. The duration may limit the period of harm. It does not remove the predicted sleep disturbance, loss of amenity or duty to avoid the significant adverse effect where practicable.

12.3 Assessment framework contains internal inconsistencies

12.3.1 Confused NOAEL and LOAEL thresholds

Table 12-11 is conceptually defective. It categorises a rating level equal to or below background as negligible and below the NOAEL. It then categorises a level more than 0 dB but no more than 5 dB above background as a low impact ‘between NOAEL and LOAEL’.

That formulation creates an overlap between the threshold below which no adverse effect is observed and the threshold at which the lowest adverse effect begins. The same range cannot rationally be both above the no-adverse-effect threshold and below the lowest-adverse-effect threshold. The terminology therefore obscures rather than clarifies the point at which adverse effects begin.

The Council’s acoustic reviewer identifies the same defect. It explains that the term ‘No Observed Adverse Effect Level’ is not commonly used in this way and that, under the Applicant’s thresholds, sound between 0 and +5 dB above background would be both above and below the point at which adverse effects occur. The reviewer concludes that the practical LOAEL should be a rating level above background, subject to context, with sound at or below background representing the level below which adverse impacts are not expected.

That approach is also consistent with the Applicant’s own proposed mitigation. Section 12.9 states that additional mitigation will be applied to avoid exceeding the Applicant’s NOAEL where practicably possible, while the Outline OEMP

reportedly commits to controlling residential noise to below background. The assessment criteria should therefore be corrected so that the boundary between no adverse effect and adverse effect is explicit and internally consistent.

This matters materially. Before additional mitigation, the Applicant identifies multiple receptors with rating levels above background, including seven receptors experiencing early-morning increases of approximately +6 to +8 dB. A confused threshold framework risks understating the planning significance of those effects.

This matters under the current NPPF because Policy P3 is expressly concerned with avoiding significant observed adverse effects and reducing other adverse noise impacts to a minimum. The distinction between no observed adverse effect, lowest observed adverse effect and significant observed adverse effect must therefore be intelligible and consistently applied. If the Applicant's own assessment framework does not identify clearly where adverse effect begins, the subsequent policy judgment becomes correspondingly uncertain.

12.3.2 Non-residential criteria are unclear

The non-residential criteria in Table 12-12 are also insufficiently clear. For offices, places of worship and nurseries, the numerical presentation does not distinguish cleanly between the level at which adverse effects begin and the level at which significant adverse effects occur. The Council's acoustic reviewer observes that the criteria appear to allow LOAEL and SOAEL to share the same numerical boundary and expressly requests confirmation of the intended values.

That ambiguity is unacceptable because these receptors include schools, nurseries and places of worship, which Chapter 12 itself classifies as high sensitivity. The assessment should state, for each receptor type, a distinct NOAEL, LOAEL and SOAEL; identify whether the criterion applies internally or externally; specify the assumed façade attenuation and ventilation condition; and explain how the criterion relates to actual receptor use.

The problem is particularly important for the Jack in the Box Nursery and other sensitive non-residential uses. Where the assessment depends on indoor limits, the Applicant must establish the external level, the façade performance, whether windows may be open, the relevant hours of occupation and the effect on outdoor play or amenity areas. A generic internal threshold cannot replace a receptor-specific assessment of how the building and its external spaces are used.

Until those matters are clarified, the non-residential significance conclusions are not reliably reproducible and should not be accepted.

12.3.3 Duration is used to erase serious effects

Chapter 12 states that major or moderate construction noise effects may be significant where they continue for at least 10 days in any 15 consecutive days or for more than 40 days in six consecutive months. It then uses the absence of that duration to characterise otherwise serious effects as not significant.

This is most evident in the HDD assessment. The Applicant predicts 15 night-time receptors above SOAEL and effects ranging up to major adverse, but concludes that all are not significant because HDD at each location is expected to last fewer than ten days. Appendix 12.2 identifies major adverse night-time effects at dwellings near Lundy Green, Market Lane Farm, Thetford Farm House, Dawsons Farm and Wash Lane. Those are not marginal exceedances. They are the Applicant's own highest adverse-effect category.

The Council's acoustic reviewer correctly questions whether the duration criteria are intended only for the final EIA significance judgment or are also being used to qualify LOAEL and SOAEL exceedances. The distinction is essential. LOAEL and SOAEL describe the level and nature of the adverse response. Duration may affect the overall significance assigned to that response, but it cannot retrospectively alter the fact that the threshold has been exceeded.

Nor does short duration establish policy compliance. Chapter 12's own hierarchy says SOAEL noise is 'present and disruptive', may cause sleep disturbance and should be avoided. A resident exposed to 66 dB LAeq,T from night-time HDD does not cease to experience a serious effect because it occurs for two nights rather than ten. The shorter period may reduce total exposure, but it does not justify treating the effect as acceptable without demonstrating that night working is unavoidable and that every practicable means of avoidance has been exhausted.

The same error affects piling and access-road construction. The ES predicts a moderate adverse effect at NSR29 from piling, and accepts that access-road works may exceed SOAEL within 30 m, but relies on anticipated progression rates and the asserted unlikelihood of close proximity rather than identifying actual receptor distances and durations. That is assumption, not evidence.

The assessment should therefore be recast. It must first identify all LOAEL and SOAEL exceedances without qualification; then assess duration, frequency and receptor sensitivity when determining EIA significance; and separately demonstrate compliance with the policy obligation to avoid significant adverse effects and minimise all other adverse effects. Until that is done, Chapter 12 systematically understates the seriousness of its own predictions.

12.4 Baseline and rural acoustic context

12.4.1 Exceptionally low background levels and uncertain masking assumptions

The Applicant's baseline establishes that large parts of the Scheme lie within exceptionally quiet rural acoustic environments, with night-time and early-morning background levels commonly in the high teens and low 20s dB LA90. These are not ordinary suburban or roadside conditions. They are environments in which modest industrial sound may be readily perceptible and may materially alter acoustic character.

The position at Great Moulton requires particular caution. The baseline report states that sound at monitoring positions MP41–MP44 was dominated by road traffic when the equipment was installed and collected. However, the monitoring was unattended and the Applicant accepts that it cannot identify accurately the dominant sources throughout the survey period. No octave-band or one-third-octave-band baseline data have been disclosed to demonstrate that road traffic was in fact the dominant residual source during the quietest night-time periods.

That omission is material because the operational assessment relies, at least in part, on broadband BESS sound masking transformer hum and on industrial noise being indistinguishable against the residual environment. Sporadic rural traffic cannot simply be assumed to provide continuous masking. The GMRG acoustic review notes that there may be long night-time periods with very little traffic and that broadband A-weighted measurements cannot demonstrate whether the relevant low-frequency bands are occupied by residual sound.

The Applicant should therefore disclose representative night-time spectral baseline data for Great Moulton and compare it directly with the predicted plant spectrum. Until that is done, the assumed masking environment is unproven and the assessment may understate the perceptibility of transformer, inverter and cooling-plant noise.

12.4.2 Insufficient explanation of statistical method

The baseline report presents distributions of measured LA90,15 minute values and identifies a ‘typical’ background sound level for each monitoring location. Chapter 12 states that a statistical analysis was undertaken in accordance with BS 4142, but it does not clearly explain which statistical method was used to select the representative value from each distribution.

That omission matters because BS 4142 does not prescribe a single mechanical statistic. The selection of a representative background level requires professional judgment informed by the distribution of values, time of day, prevailing conditions and the purpose of the assessment. Different approaches may produce materially different rating-level comparisons, especially where the background is low and variable.

South Norfolk Council’s acoustic reviewer specifically identifies this deficiency. It notes that the report presents modal distributions but does not explain which recognised statistical approach was applied, and asks the Applicant to disclose the specific method used to derive the representative background sound levels.

Without that explanation, the operational assessment is not independently reproducible. The Applicant should identify, for every monitoring location, whether the selected value was based on the mode, median, lower quartile, inspection of the distribution, exclusion of particular periods or some other method. It should also explain why that value is representative of the receptor and time period concerned. Until that is done, the background values underpinning the BS 4142 assessment cannot be treated as fully transparent or robust.

12.4.3 Evening period not properly separated

The temporal structure of the assessment is also inadequate. Chapter 12 presents daytime background levels for the broad period 07:00–23:00, night-time levels for 23:00–07:00 and a separate early-morning period of 04:00–07:00. That approach combines the evening period with the busier daytime period, despite the likelihood that rural sound levels between 19:00 and 23:00 are materially lower than during working hours.

South Norfolk Council expressly requested that the assessment distinguish four periods:

- early morning, 04:00–07:00;
- daytime, 07:00–19:00;
- evening, 19:00–23:00;
- night, 23:00–04:00.

The Council's reason is sound: rural Norfolk commonly experiences a marked reduction in traffic, agricultural and community activity during the evening, so a single 07:00–23:00 value may conceal the most sensitive part of that period.

The omission is particularly serious because solar inverters are modelled to operate until 23:00 and BESS and substation plant may operate continuously. The period from 19:00 to 23:00 is therefore not a theoretical gap. It is a period in which operational plant may continue while the residual environment becomes progressively quieter.

The Applicant should provide separate evening background distributions and rating-level assessments. Without them, the ES has not demonstrated that the Scheme would be acceptable during a predictable and potentially sensitive part of the operational day.

12.5 Construction noise predictions are not transparent or reproducible

12.5.1 Inadequate calculation disclosure

Appendix 12.2 provides overall sound-power levels for construction activities and headline predictions at selected receptors, but it does not contain enough information to enable an independent reviewer to reproduce or validate the results.

The missing information includes the number of items of plant assumed to operate simultaneously, the precise source locations, operating percentages, on-time assumptions, propagation method, meteorological assumptions, attenuation terms, barrier corrections, ground treatment, façade corrections and worked examples for key receptors. The assessment also does not consistently identify the duration for which each receptor would experience the predicted level.

That is a material defect. Construction predictions depend heavily on assumptions about plant combinations, source-to-receptor geometry and time

correction. A single overall sound-power figure for a construction phase does not show how the result was derived or whether the assumed combination genuinely represents the reasonable worst case.

South Norfolk Council's acoustic reviewer reached the same conclusion. It states that Appendix 12.2 does not provide a sufficient description of the construction calculation methodology and requires detailed commentary on source numbers, locations, modelling parameters, attenuation assumptions and specific worked examples.

The Applicant should therefore disclose a complete construction-noise calculation schedule for each principal activity and receptor. Until it does so, the assessment remains a set of unverified outputs rather than a transparent EIA calculation.

12.5.2 Construction noise exceedances are extensive

The Applicant's own results show that construction noise exceedances are widespread. Table 12-18 records one receptor above SOAEL and 44 receptors between LOAEL and SOAEL for the principal construction activities. Solar piling alone produces one receptor above SOAEL and 38 between LOAEL and SOAEL.

The access-road assessment is also adverse. Appendix 12.2 states that SOAEL would be exceeded where access-road works occur within 30 m of a high-sensitivity receptor. It predicts 65 dB LAeq,T at 30 m and 55 dB at 100 m. In many of the baseline environments identified in Table 12-17, 55 dB would be substantially above existing ambient levels and therefore above LOAEL.

HDD produces still more serious effects. During daytime works, the ES identifies one receptor above SOAEL and 15 between LOAEL and SOAEL. At night, it identifies 15 receptors above SOAEL and three between LOAEL and SOAEL.

These are not speculative concerns advanced by objectors. They are the Applicant's own predictions. The dispute is not whether exceedances occur, but whether the Applicant is entitled to dismiss them through assumptions about duration, screening and future management. It is not.

12.6 Horizontal directional drilling is the clearest construction failure

12.6.1 Major adverse night-time effects

HDD is the clearest demonstration that the construction case is not acceptable as presently assessed. Table 12-19 records 15 receptors above SOAEL during night-time HDD. Appendix 12.2 then identifies major adverse effects at several specific locations.

The predicted night-time levels include:

- dwellings north and south of Lundy Green: 57 dB and 50 dB against a 45 dB SOAEL threshold;

- Market Lane Farm: 58 dB against a 45 dB threshold;
- Thetford Farm House: 66 dB against a 50 dB threshold;
- Dawsons Farm: 55 dB against a 45 dB threshold;
- dwellings on Wash Lane: 51 dB against a 45 dB threshold.

Those outcomes are classified by the Applicant as high-magnitude, major adverse effects. They are not borderline or technical exceedances. They represent the highest adverse category used in the ES and arise during the period when residents are entitled to sleep.

12.6.2 'Short duration' does not make the effects acceptable

The Applicant seeks to neutralise these effects because HDD at an individual location is expected to last one or two days and fewer than ten days overall. That reasoning is unsound.

A one- or two-night major adverse effect remains a major adverse effect for the residents exposed. Short duration does not remove sleep disturbance, premature awakening, anxiety, interference with the use of bedrooms or loss of residential amenity. It limits the number of nights affected; it does not alter the severity of the effect while it occurs.

The Applicant's own noise hierarchy states that SOAEL noise is 'present and disruptive', may cause difficulty getting to sleep, premature awakening and difficulty returning to sleep, and should be avoided. The ES cannot identify that effect and then treat it as acceptable solely because the exposure is temporary.

12.6.3 No proper justification for continuous working

The ES states that HDD may require night-time working because trenchless crossings may need to be continuous, but it does not identify which crossings genuinely require uninterrupted operation or why daytime-only working would be technically infeasible.

The Applicant should be required to provide, for each proposed crossing:

- the crossing method;
- expected drilling length and duration;
- whether continuous operation is technically necessary;
- the reason daytime-only working cannot be used;
- the receptors affected;
- evening, night and early-morning predictions;
- plant and barrier options;
- achievable attenuation;
- an alternative method if night-time compliance cannot be secured.

It should also identify which HDD sites remain indicative and whether the final crossing locations could move closer to receptors. The present assessment leaves both the need for night working and the final mitigation unresolved.

12.6.4 Section 61 is not a substitute for EIA

The Applicant relies on a future section 61 consent under the Control of Pollution Act 1974 to regulate out-of-hours works. That is not a substitute for a complete environmental assessment.

A section 61 process may regulate how particular works are carried out. It does not determine whether the principle of night-time HDD with major adverse effects is acceptable for the purposes of the DCO. Nor can it cure the absence of a settled construction method, receptor-specific mitigation or an assessment of reasonable alternatives.

The Examination should therefore determine whether night-time HDD forms part of an environmentally acceptable reasonable worst case, and whether any necessary avoidance or mitigation can be identified and secured before reliance is placed upon a later section 61 process.

12.7 Access roads and construction traffic are underassessed

12.7.1 Access-road proximity is unknown

Chapter 12 accepts that access-road construction would exceed SOAEL within 30 m of a high-sensitivity receptor, but then dismisses the issue on the basis that it is ‘unlikely’ that roads will be located that close. That is not evidence.

The Works Plans and access strategy should permit the Applicant to identify the actual minimum distance between every proposed access road, haul route and sensitive receptor. The Applicant should provide a schedule of all receptors within 30 m and 100 m, the activity to occur, the predicted level and the expected duration.

The Council’s acoustic reviewer expressly requests that information. It also notes that the predicted 55 dB at 100 m would exceed existing ambient sound at almost all locations. Until the distances and durations are disclosed, the conclusion that effects are negligible or minor is unsupported.

12.7.2 Traffic noise results are incomplete

The construction traffic assessment reports relative changes in road traffic noise but does not provide the absolute daytime and night-time levels required for comparison with the LOAEL and SOAEL criteria in Table 12-10.

That omission prevents proper application of the Applicant’s own methodology. A small relative increase may still be material where the absolute level is already above LOAEL or SOAEL. Conversely, a larger change may occur from a low baseline. Both the change and the absolute level are needed.

The Council’s acoustic reviewer therefore requires façade-incident daytime levels and equivalent free-field night-time levels for each assessed road and receptor.

Without those figures, the conclusion that construction traffic noise remains below LOAEL cannot be verified.

12.7.3 Traffic vibration remains unresolved

This issue was expressly identified at scoping. The Applicant proposed to scope traffic vibration out principally on the basis that maintained road surfaces without irregularities should not generate significant vibration effects. The Planning Inspectorate did not accept that proposition on the information then available. It noted that road condition had not been assessed and that vehicle routes and site accesses had not been confirmed, and required the ES either to provide evidence demonstrating that ground-borne vibration from HGV movements would not produce significant effects on sensitive receptors during construction, operation and decommissioning, or to assess the likely significant effects unless otherwise agreed with the relevant consultation bodies.

That is a materially more demanding requirement than a generic statement that traffic vibration is normally low. The final assessment must be capable of relating the actual routes, road condition, vehicle type, speed, axle loading and receptor proximity to the conclusion reached.

That does not fully answer the scoping requirement. The Applicant should identify every receptor within the vibration study area of the final construction routes and assess the effect of actual road condition and HGV operation. Until routeing and road condition are settled, the traffic-vibration conclusion remains provisional.

12.8 Piling and vibration

12.8.1 Percussive piling is not justified

The Applicant assumes that percussive piling may be used for solar arrays, BESS infrastructure, Project Substations and the National Grid Substation. Appendix 12.2 models a sound-power level of 117 dB for solar piling and 120 dB for substation enabling works including piling.

South Norfolk Council’s Environmental Management Officer stated during consultation that percussive piling was not considered appropriate and that alternative forms of piling, including screw piles, should be considered in order to remove the percussive noise impact. That objection goes directly to the mitigation hierarchy. Noise and vibration should first be avoided or reduced at source. The Applicant should not assume a noisier construction method and rely on barriers, limited working hours and complaint management where a quieter practicable technique may exist.

The Applicant must justify, by site and foundation type, why percussive piling is necessary and why screw, jacked or pre-bored alternatives cannot be used. The Applicant should demonstrate why retention of the noisier method within the authorised envelope is necessary and how its reasonable worst-case effects would be controlled.

12.8.2 Vibration methodology lacks transparency

Appendix 12.2 states that vibration predictions use BS 5228 reference data and provides some assumptions for vibratory compaction and percussive piling, including a 2 kJ hammer energy and scaling factors. It does not, however, provide a sufficiently complete account of the calculation method to allow independent verification.

The Applicant should disclose:

- the source datasets used;
- the predictive equations;
- hammer energy and pile dimensions;
- assumed soil and geological conditions;
- source-to-receptor geometry;
- number of simultaneous sources;
- treatment of start-up and run-down;
- receptor-specific durations;
- worked calculations for the worst affected receptors.

The Council’s acoustic reviewer identifies this lack of transparency and requires detailed calculation examples for compaction, piling and HDD.

12.8.3 Sensitive and historic structures

Chapter 12 recognises that fragile or particularly sensitive buildings may require a lower structural-damage threshold and refers to a conservative value of 3 mm/s PPV. It does not provide a schedule identifying which buildings have been treated as fragile or historic, or demonstrate that the lower threshold has been applied to each relevant receptor.

That is a significant omission in a landscape containing listed buildings, historic farmsteads, churches and older rural dwellings close to construction routes and works areas. The Applicant should provide a receptor schedule identifying all sensitive structures, their construction and condition, the relevant vibration source, predicted PPV and the threshold applied.

A generic statement that 3 mm/s is protective is not enough. The assessment must show where and how it has been used.

12.9 Operational noise modelling may materially underpredict effects

12.9.1 Final plant, plant numbers and operating regimes are not fixed

The operational assessment relies on example equipment data and an indicative plant layout. The final number, type, position and operating regime of BESS containers, inverters, transformers and cooling units remain unresolved. The GMRG acoustic review further identifies that the modelling information does not disclose clearly how many BESS units have been included in the calculation.

That uncertainty is not a minor detailed-design matter. The number and arrangement of sources determine the aggregate sound level, source directivity, screening performance and acoustic character. The Applicant has assumed simultaneous maximum operation for much of the plant, but makes an important exception by relying on reduced BESS fan duty as mitigation during quieter periods. The assessment therefore combines a purported worst case with a favourable unverified operating assumption.

The model demonstrates only that one assumed combination of equipment, plant numbers, fan duty, layout and barriers may comply. It does not establish that the full authorised envelope will do so. Maximum plant numbers, spectral sound-power limits and operating regimes must therefore be fixed or controlled through the DCO.

The issue is not that every manufacturer and equipment model must necessarily be fixed before consent. A Rochdale Envelope may legitimately retain equipment flexibility. The Applicant must, however, define an acoustic envelope sufficiently robust to demonstrate that every materially different equipment configuration permitted by the DCO can comply with the assessed noise limits. Detailed design may select compliant plant within that envelope; it should not be required to discover whether a compliant configuration exists.

12.9.2 The National Grid and BESS source spectra are not disclosed

The modelling schedules provide principally broadband A-weighted sound-power levels. The one-third-octave source data used to predict low-frequency noise are not disclosed, nor are the manufacturers, measurements or existing installations from which those spectra were derived.

This prevents independent verification of the low-frequency propagation model. Sound attenuation, barrier insertion loss and atmospheric absorption vary substantially by frequency. Modelling based only on broadband A-weighted levels, or using a representative mid-frequency band, may not represent propagation at 50 Hz, 100 Hz or other low frequencies associated with transformers, reactors, inverters and cooling plant.

A single generic entry for substation plant is particularly inadequate where the development may contain transformers, shunt reactors, fans, switchgear, exposed conductors and other sources with materially different spectra and acoustic characteristics. The Applicant must disclose the complete source inventory and source spectra for each significant plant item.

12.9.3 Barrier performance is not independently verifiable

The model relies on 4 m acoustic barriers around parts of the BESS compound. Their performance depends on final source heights, source locations, barrier geometry, mass, sealing, absorptive treatment and frequency-dependent insertion loss.

The GMRG review notes that the absorption assumed within the model is not transparently stated and that low-frequency barrier performance is particularly

uncertain because of the long wavelengths involved. The assessment therefore cannot be validated merely by specifying a barrier height and surface density.

The Applicant must disclose the frequency-dependent absorption and insertion-loss assumptions, barrier construction, source and receiver geometry, reflection settings and sensitivity testing. It should also demonstrate that the barrier can be delivered consistently with battery ventilation, fire safety, drainage, maintenance access, landscape and heritage requirements.

12.9.4 Modelling uncertainty has not been quantified

The submitted assessment does not quantify the combined uncertainty arising from example equipment, uncertain plant numbers, source spectra, propagation assumptions, barrier performance and acoustic character corrections.

That omission is material. The GMRG review concludes that relatively small changes in spectral content or feature corrections could move the rating level into a range indicative of adverse or significant adverse impact. In an exceptionally quiet rural environment, the assessment conclusion may therefore be highly sensitive to assumptions that have not been substantiated.

The Applicant should provide a formal uncertainty analysis and reasonable worst-case sensitivity testing. The decision-maker should not treat a single deterministic model output as proof of acceptability where the input uncertainty may be sufficient to alter the significance conclusion.

12.10 BS 4142 acoustic character corrections are unjustifiably set to zero

The Applicant applies no BS 4142 correction for tonality, impulsivity, intermittency or other distinctive characteristics. That conclusion is not supported by adequate source-specific or receptor-specific evidence.

The Applicant acknowledges that high-voltage transformers may generate a 100 Hz hum, but asserts that this will be masked by broadband noise from BESS inverters and containers. The GMRG review identifies two fundamental problems with that reasoning. First, the one-third-octave plant data needed to apply the BS 4142 tonal audibility method have not been disclosed. Second, the spectral content of the residual night-time environment has not been published, so the claimed masking effect cannot be demonstrated.

The masking assumption may also fail under the Applicant’s own operating case. If BESS fan duty is reduced at night, broadband masking may diminish while transformer hum remains. Plant loading, weather and operating mode may likewise alter the relative contribution of each source.

The Applicant’s assertion that the development will not be distinctive is equally unsupported. BS 4142 requires consideration of the character and temporal variation of the specific sound against the residual environment. Broadband A-weighted levels cannot establish whether a 100 Hz tone, fan cycle, inverter

component, switchgear event or corona sound would be incongruous in a quiet rural soundscape.

The Applicant should therefore provide:

- one-third-octave source spectra for all material plant;
- representative night-time residual spectra;
- tonal audibility calculations at the worst affected receptors;
- assessment of fan cycling and intermittent plant operation;
- assessment of switchgear impulsivity;
- assessment of corona buzzing or crackling;
- sensitivity testing using appropriate BS 4142 penalties.

Until that evidence is supplied, the blanket application of zero feature corrections has not yet been demonstrated to represent a reasonable worst case and could materially understate the rating level if tonal or other distinctive characteristics are present at the receptor.

12.11 Early-morning operational effects show the Scheme is not inherently acceptable

The early-morning assessment exposes the central weakness in the operational case. Before additional mitigation, Chapter 12 identifies operational sound above the Applicant’s own no-adverse-effect threshold at up to 21 high-sensitivity receptors. Seven receptors experience rating levels approximately 6–8 dB above background, producing moderate adverse, long-term effects at several locations. These include NSR14 at +6 dB, NSR43 and NSR47 at +8 dB, NSR48, NSR59 and NSR60 at +7 dB, and NSR62 at +6 dB.

Those results arise during 04:00–07:00, when the Applicant’s own baseline shows exceptionally low rural background levels, in some places only 20–24 dB LA90. The predicted increases are therefore not abstract numerical differences. They represent the introduction of mechanically generated sound into environments where it is likely to be readily perceptible and capable of changing the acoustic character of the area.

The Applicant does not resolve those effects through the submitted design. It introduces ‘additional mitigation’ and recalculates the results on the basis of reduced inverter noise. Appendix 12.2 states that this additional mitigation is applied only to the solar inverters and that the revised early-morning assessment then reduces the effects to negligible.

That is not evidence that the Scheme as submitted is acceptable. It is evidence that the unmitigated design is not acceptable at a material number of receptors and that compliance depends on future equipment selection, attenuation, relocation, reorientation or operational restriction. The operational case is mitigation-led, not design-led. The Applicant has shown that an assumed future arrangement may comply; it has not shown that the authorised Scheme, within its proposed flexibility, necessarily will.

The August 2026 NPPF reinforces the importance of that distinction. Policy P3 requires adverse noise impacts to be avoided where possible or otherwise mitigated to an acceptable degree, requires

potential adverse noise impacts to be reduced to a minimum and requires significant observed adverse effects to be avoided. Where compliance depends upon future equipment selection or operating restrictions, those parameters must therefore form part of the enforceable acoustic envelope rather than remain optional mitigation.

12.12 Mitigation is generic, unproven and insufficiently secured

12.12.1 No clear mitigation schedule

Chapter 12 relies on a broad menu of possible measures: low-noise inverter models, acoustic enclosures, silencers, attenuators, plant relocation, reorientation, reduced BESS fan duty, 4 m acoustic barriers and selection of equipment without tonal characteristics.

The ES does not, however, provide a site-by-site mitigation schedule identifying:

- which measure applies to each receptor or plant group;
- the required attenuation;
- the equipment to which it applies;
- its physical dimensions and location;
- whether the reduction is guaranteed by manufacturer data;
- whether it is compatible with fire safety, maintenance and ventilation;
- whether it can be accommodated within the approved layout;
- whether it creates other environmental harm.

Table 12-25 identifies the reductions required at particular inverter groups, but the Applicant does not demonstrate how each reduction will be achieved in practice. The Council's acoustic reviewer therefore asks for worked examples showing how the suggested measures can deliver the required attenuation within the Scheme's other constraints.

The distinction is fundamental. A list of possible mitigation measures is not the same as evidence that mitigation is technically feasible, environmentally acceptable and secured. Until that evidence is supplied, the claimed residual effects remain contingent.

12.12.2 Acoustic barriers are evidence of unresolved design dependence

The proposed 4 m acoustic barrier is not merely a routine embedded measure. Its necessity indicates that the BESS and associated infrastructure may otherwise produce adverse operational sound above the Applicant's intended mitigated criterion at nearby receptors.

The barrier is substantial, technically demanding and visually incongruous in an open rural landscape. Its acoustic performance depends on final plant layout, source height, sealing, absorption, reflections and low-frequency behaviour. The GMRG review questions whether the proposed construction can deliver the assumed low-frequency performance and

identifies the absence of sufficient modelling detail to validate that assumption.

The barrier also creates potential conflicts with landscape, heritage, drainage, maintenance and fire-safety requirements. Those conflicts cannot be deferred while the barrier is simultaneously relied upon to demonstrate operational acceptability.

The Applicant must show that the exact barrier arrangement is physically deliverable and environmentally acceptable, and that its frequency-dependent performance is secured. An assumed barrier in an indicative model is not a reliable mitigation commitment.

12.12.3 Noise limits must be secured by Requirement

The Council’s acoustic reviewer welcomes the Outline OEMP commitment to control residential rating levels at or below background, because that would satisfy the policy requirement to minimise adverse effects, subject to context and deliverability. It expressly asks whether that commitment will be secured through a DCO Requirement.

It must be. An outline management-plan aspiration is not an enforceable operational limit. The final DCO should require the rating level from the whole authorised development, assessed in accordance with BS 4142, not to exceed the representative background level at any residential receptor. The Requirement should also control cumulative sound, tonal and other acoustic features, early-morning operation and replacement plant.

The Requirement must specify the assessment method, receptor positions, operating conditions, measurement procedure, correction for uncertainty, reporting obligations and remedial action. Without those elements, the Applicant’s mitigation case remains discretionary and cannot support the conclusion of no significant residual effects.

12.13 Low-frequency noise assessment is incomplete

The low-frequency assessment is not independently reproducible. The Applicant presents predicted one-third-octave façade levels, but does not disclose the corresponding source spectra, their derivation or the detailed propagation assumptions. It is therefore impossible to confirm whether the model represents the low-frequency emissions of the BESS, transformers, inverters and National Grid equipment.

This is not cured by compliance with the NANR45 criterion on the Applicant’s assumed inputs. A broadband A-weighted total can conceal a pronounced low-frequency component, and low-frequency sound may be particularly noticeable indoors at night. Barrier and atmospheric attenuation are also weaker and more uncertain at the lowest frequencies.

The revised assessment should therefore include:

- disclosed manufacturer or measured one-third-octave source spectra;
- the number and operating duty of every modelled source;
- simultaneous BESS and substation operation;
- separate evening, night and early-morning cases;
- receptor-specific façade and room assumptions;
- a 5 dB façade attenuation sensitivity case;
- tonal assessment around 100 Hz and associated harmonics;
- frequency-dependent barrier performance;
- modelling uncertainty and worst-case sensitivity testing.

The Applicant should also compare the predicted plant spectrum with measured night-time residual spectra at Great Moulton. Until that comparison is provided, the conclusions on low-frequency acceptability and tonal masking should carry little weight.

12.14 Non-residential and vulnerable receptors

The assessment does not give sufficient attention to the different ways in which non-residential and vulnerable receptors experience noise.

Jack in the Box Nursery is correctly identified in Chapter 12 as a high-sensitivity receptor, but the wider consultation evidence shows continuing concern about the adequacy of the assessment of nursery use, external play areas and the sensitivity of children. A generic indoor limit does not establish that internal teaching spaces, sleep areas or outdoor play areas would remain acceptable.

Places of worship, including St Catherine’s Church and St Michael’s Church, require assessment reflecting their reliance on speech intelligibility, quiet contemplation and periods of low internal sound. Chapter 12 identifies them as high-sensitivity receptors but assesses them through generic internal criteria without demonstrating actual façade performance, window-opening conditions or the acoustic character of the intrusive source.

Hotels, bed-and-breakfast accommodation, cafés, restaurants and outdoor commercial uses may depend directly on tranquillity and the ability to use external areas. Red House Farm Bed and Breakfast is identified as a high-sensitivity receptor, but the assessment does not provide a separate appraisal of guest amenity, evening use or commercial consequences.

The assessment is weaker still in relation to vulnerable residents. Norfolk County Council identified concern about noise, mental health and wellbeing, including impacts on autistic children and others with sensory sensitivities who may depend on a predictable and quiet home environment. Chapter 12 applies average-response criteria. It does not assess whether particular receptors may experience materially greater effects because of disability, sensory processing conditions, home education or other vulnerability.

The Applicant should therefore provide receptor-specific assessments for nurseries, places of worship, tourism accommodation, external commercial uses and identified vulnerable residents. The absence of such assessment cannot be cured by classifying all effects through generic sensitivity categories.

12.15 Outdoor amenity has not been adequately demonstrated

The Applicant states that daytime modelling at 1.5 m above ground represents outdoor amenity areas and therefore no separate assessment is necessary. That assertion is insufficient.

A modelling height does not establish that receptors have been placed in the relevant part of each garden. It does not identify patios, principal sitting areas, children’s play areas or the side of the dwelling most exposed to the Scheme. It also does not address evening use, seasonal use or the combined contribution of multiple plant sources.

The issue is particularly important where predicted sound is close to or above background. In those circumstances, small differences in receptor position, screening and source directivity may determine whether the plant is audible and intrusive. The acoustic character of the source also matters: a steady transformer hum or fan sound may be more intrusive than an equivalent level of anonymous environmental sound.

The Applicant should provide property-specific garden receptor positions for every dwelling at which the predicted rating level approaches or exceeds background. Those assessments should cover daytime and evening use, include cumulative plant contributions and assess acoustic character, not merely the A-weighted level.

12.16 Public rights of way and equestrian users

The PRoW assessment relies on absolute criteria of 50 dB LAeq,T for LOAEL and 55 dB for SOAEL, derived from general community-noise guidance. Those values do not necessarily protect tranquillity in a quiet rural landscape where a single identifiable industrial source becomes dominant.

The Council’s acoustic reviewer makes that point expressly. It notes that the WHO values were developed for anonymous or general environmental noise and that compliance does not ensure the absence of adverse effects where industrial sound has a distinctive character. It also identifies a direct contradiction in the Outline OEMP: the proposed PRoW limit of 55 dB is itself the Applicant’s SOAEL threshold. A commitment to permit sound up to SOAEL cannot satisfy the policy requirement to minimise adverse effects.

The Applicant should provide existing ambient levels and predicted operational levels for every identified PRoW receptor, including NSR6, NSR12, NSR19, NSR27, NSR36, NSR57, NSR63, NSR70 and NSR79. It should assess change in acoustic character, not only compliance with an absolute ceiling.

Equestrian users also require separate consideration. The British Horse Society has requested that inverter housing be designed to prevent sound transmission and be located away from bridleways and byways, and that construction traffic avoid equestrian routes where possible. The ES does not adequately assess the combined effect of plant noise, sudden construction sound and traffic on horse behaviour, rider safety and enjoyment of the route network.

12.17 Ecological noise and vibration effects

In its Scoping Opinion, the Planning Inspectorate accepted that construction and decommissioning noise effects on sensitive ecological receptors could be assessed in the Ecology and Biodiversity chapter, provided Chapter 12 clearly cross-referenced that assessment. It also agreed that operational ecological noise could be scoped out, but expressly on the basis that the ES would confirm operational equipment types and numbers, with reference to the distances between noise sources and sensitive ecological receptors, sufficient to justify that conclusion. Pins scoping response

BEPS's objection is whether the factual basis upon which PINS agreed to scoping out has actually been satisfied. That question is material because final equipment type, number, location and operating regime remain flexible, while the ecological evidence now establishes a nationally important bat landscape and sensitive functional habitat adjoining and overlapping the Scheme.

12.17.1 Chapter 12 is principally a human-receptor assessment

Chapter 12 expressly states that it assesses noise and vibration effects on human receptors. Ecological effects are directed to Chapter 8, and Table 12-3 records ecological noise and vibration as scoped out of Chapter 12 for all phases. Operational ecological noise was accepted for scoping out on the assumption that operational levels would be unlikely to affect ecological receptors.

That division does not remove the need for a substantive ecological disturbance assessment. Cross-reference is acceptable only if Chapter 8 actually assesses the relevant noise sources, levels, timing, distances and species-specific responses. A bare statement that effects are addressed elsewhere is not evidence.

12.17.2 Nationally important bat landscape

South Norfolk Council records that ten bat species were identified within the Order Limits and that the bat assemblage is of national importance. It further records that barbastelles were highly abundant and widespread and that data from the Norfolk and Norwich Bat Group identify 12 barbastelle maternity-colony core sustenance zones overlapping the Order Limits. Colonies at Saxlingham Wood and Spring Wood lie adjacent to the Scheme.

This is therefore not a scheme affecting occasional bat activity in an otherwise ordinary landscape. It intersects a functionally connected bat network of national importance, including maternity-colony supporting habitat.

12.17.3 No dedicated barbastelle disturbance assessment

There is no dedicated, species-specific assessment of whether noise and vibration may affect barbastelle roosting, commuting or foraging. The assessment should address, in combination:

- HDD and continuous night working;
- percussive piling;
- compounds and generators;
- HGV movements;
- BESS cooling fans;
- inverters and transformers;
- maintenance and replacement activity;
- artificial lighting;
- vehicle and personnel movement;
- fragmentation and alteration of dark corridors.

The relevant question is not confined to physical injury. It is whether the Scheme may displace bats from flight lines, alter foraging behaviour, reduce use of roost-supporting habitat, interfere with maternity-colony function or cause avoidance of established corridors.

Given the national importance of the bat assemblage, the question should therefore be whether the Applicant has provided the information required by the Scoping Opinion to sustain the original scoping-out conclusion in light of the final ecological baseline and the operational equipment envelope now sought. If the number, type, location or acoustic characteristics of operational plant remain materially flexible, the Applicant should demonstrate that the reasonable worst case would not produce a significant disturbance pathway to the identified roosting, commuting and foraging functions. If that demonstration is already contained within Chapter 8, it should be identified expressly and reconciled with the final noise envelope. The evidential gap affects both the EIA conclusion and any later consideration of protected-species licensing.

12.18 Health, wellbeing and rural tranquillity

The August 2026 NPPF gives this issue direct policy relevance. Policy P3 requires consideration of cumulative pollution effects upon health and living conditions, including the particular sensitivity of vulnerable groups such as children and older people. It also specifically requires adverse noise effects to be minimised and the character of tranquil areas to be maintained.

Chapter 12 treats noise principally as an acoustical compliance exercise. That is too narrow. The Applicant’s own hierarchy recognises that intrusive noise may cause changes in behaviour, sleep disturbance, premature awakening and diminished quality of life. Those effects must be considered in the real context of nearby communities facing years of construction, repeated HGV movements, HDD, piling and the permanent introduction of BESS and substation sound into a quiet rural landscape.

Norfolk County Council Public Health called for a dedicated assessment of mental health and wellbeing, including cumulative and in-combination effects and particular consideration of vulnerable groups. It identified concern arising from

the concentration of major infrastructure close to Great Moulton and the absence of adequate evidence on the physical and mental health consequences.

Policy DM 3.13 requires regard to background levels at different times of day and night and protection of rural tranquillity. That policy concern is not answered by showing that a modelled level falls below a selected numerical threshold. The assessment should address the implications for quiet enjoyment, sleep, residential amenity and rural tranquillity, together with any supported cumulative health or wellbeing effects identified through the wider human-health assessment.

The Applicant has not done so with sufficient depth. The result is an assessment that understates the human consequences of changing the acoustic character of a large rural area for up to 60 years.

12.19 Cumulative effects are incomplete

The cumulative assessment considers only a limited number of identified developments and does not demonstrate that the full relevant project list has been assessed. Chapter 12 should identify the complete shortlist, explain the screening criteria and assess overlapping construction and operational effects.

The required cumulative assessment should include:

- combined operational rating levels at each shared receptor;
- compliance with the commitment to remain at or below background;
- overlapping construction traffic and noise;
- National Grid infrastructure;
- other solar and BESS projects;
- road schemes and transmission works;
- temporal overlap between construction programmes;
- combined acoustic character and low-frequency effects.

The Council’s acoustic reviewer identifies a specific unresolved issue at NSR3A. It notes that the combined level with application 2024/3817 would remain above existing background and asks whether the OEMP commitment to remain below background applies cumulatively.

That question goes to the heart of the cumulative case. A project-specific limit is insufficient if the combined authorised sound environment remains adverse. The DCO must control the contribution of East Pye so that cumulative effects remain acceptable, not merely its isolated modelled level.

Policy P3 now expressly requires the likely effects of pollution to be considered cumulatively. The cumulative noise question is therefore not answered solely by demonstrating that East Pye’s isolated contribution remains within a project-specific criterion. Where another authorised or reasonably foreseeable source affects the same receptor, the assessment should identify the combined acoustic environment and determine whether East Pye's contribution remains compatible with the policy objective of minimising adverse effects and avoiding significant observed adverse effects.

12.20 Decommissioning and replacement cycles

The Scheme may operate for up to 60 years. Chapter 12 nevertheless scopes out or simplifies substantial elements of maintenance and replacement on the basis that they would be less intensive than initial construction. It records that all solar panels may be replaced at least once and that the BESS may be replaced up to five times.

Those are not trivial or exceptional activities. Replacing BESS units up to five times may involve repeated HGV deliveries, lifting operations, temporary compounds, generators, electrical works and recommissioning. Panel replacement across a project of this scale may also produce prolonged and geographically dispersed activity.

The Applicant should provide a realistic noise assessment for the replacement cycles inherent in the Scheme's design life. The assessment should identify likely plant, duration, traffic, hours and affected receptors.

Where replacement plant is capable of materially affecting the noise assessment, the DCO should require it either to meet acoustic specifications no worse than the approved plant or to demonstrate, before installation, continued compliance with the secured operational noise limits. Without that control, quieter initial equipment could later be replaced by materially noisier units while remaining within the authorised development.

12.21 Overall conclusion

First, Chapter 12 identifies material construction and operational effects but repeatedly neutralises them through duration thresholds, generic mitigation and future design controls.

Second, the operational model cannot be independently verified. Final plant specifications and numbers remain unresolved; source spectra have not been disclosed; the National Grid source inventory is incomplete; and the low-frequency and barrier calculations are insufficiently transparent.

Third, the assumption that residual road traffic or broadband BESS noise will mask transformer hum and other distinctive sound has not been demonstrated. Neither representative night-time residual spectra nor the plant spectra required to undertake that comparison have been supplied.

Fourth, the zero BS 4142 acoustic feature corrections are unsupported. Reasonable corrections for tonality or distinctiveness could materially alter the rating levels and significance conclusions, particularly at Great Moulton during quiet night-time periods.

Fifth, the submitted design is not inherently acceptable. Compliance depends on reduced fan duty, selected equipment, acoustic barriers, source orientation and other measures whose specification, performance and environmental compatibility remain unresolved.

Taken together, these matters mean that Chapter 12 has not yet demonstrated with sufficient robustness that the full operational and construction envelope authorised by the DCO would comply with the noise assumptions on which the Applicant's residual conclusions depend. The principal issue is not the existence of acoustic mitigation in principle, but whether the reasonable worst-case plant, construction methods and operating regimes have been adequately assessed and whether the controls necessary to achieve the predicted outcomes are fixed and enforceable.

12.22 Remedies sought

Further assessment

The further-assessment requirements should be expanded to require:

- complete octave-band and one-third-octave plant source data;
- identification of the manufacturer or measured source for every spectrum;
- night-time octave-band or one-third-octave baseline data at Great Moulton;
- disclosure of the number and position of all BESS and substation sources;
- frequency-dependent barrier absorption and insertion-loss assumptions;
- BS 4142 tonal audibility calculations;
- assessment of other distinctive and intermittent characteristics;
- quantified modelling uncertainty and sensitivity testing.

The binding controls should also require:

- maximum A-weighted and spectral sound-power limits for every plant category;
- limits applying to the maximum authorised number of plant units;
- no reliance on reduced fan duty unless that regime is enforceably secured;
- a final BS 4142 assessment using the installed plant and final layout;
- pre-commissioning review of manufacturer spectral data;
- post-commissioning broadband, narrow-band and low-frequency measurements;
- correction and mitigation where tonal, low-frequency or other distinctive sound is identified;
- no operation of non-compliant plant until effective remediation has been completed.

Design changes

Night-time HDD should be prohibited unless the Applicant demonstrates an exceptional technical necessity for a specific crossing and proves that no quieter method or daytime programme is feasible. The Applicant should be required to justify retention of percussive piling at locations where quieter practicable foundation methods could achieve the required engineering function, and to

adopt quieter methods where reasonably practicable. Operational plant should be relocated away from sensitive receptors, minimum equipment sound-power standards should be fixed, and access roads should not be located within 30 m of dwellings.

Binding controls

If the Applicant continues to rely upon its commitment to control residential operational noise at or below representative background as the basis for its conclusion of acceptability, that commitment should be translated into an enforceable DCO Requirement applying to the whole operational Scheme. It should fix maximum sound-power and spectral limits for each plant category; control tonality, impulsivity, intermittency and other distinctive characteristics; require approval of a final verified noise model before installation; secure post-commissioning compliance testing and continuous complaint investigation; ensure replacement plant is no noisier than approved equipment; and impose clear construction hours, including an express prohibition on routine night-time HDD.

Decision consequence

Consent should not be granted on the assumption that material acoustic mitigation will later prove technically deliverable. Before the ExA reaches its recommendation, the Applicant should demonstrate that the measures necessary to keep the authorised development within the assessed acoustic envelope are technically feasible, compatible with other environmental and safety requirements and capable of being secured through enforceable Requirements. If that cannot be demonstrated, the Scheme has not been shown to be acceptable in noise and vibration terms and should not be authorised in its present form.

Chapter 13: Air Quality

13.1 BEPS Position

BEPS does not contend that existing statutory air-quality objectives are currently exceeded across the East Pye Order Limits. The objection is that the Applicant has not established a representative measured baseline for the predominantly rural locations in which most of the Scheme would actually be constructed, yet relies heavily on generic traffic-screening thresholds and assumptions to conclude that effects will be negligible.

Chapter 13 is also much narrower than its title suggests. The substantive assessment is principally confined to road-traffic emissions affecting human and ecological receptors during construction and decommissioning. Fugitive dust, emissions from non-road mobile machinery (‘NRMM’), operational traffic, emergency generator emissions and BESS-fire emissions are either scoped out of the chapter, addressed through separate outline management documents, or deferred. Table 13.3 confirms that, of the principal air-quality pathways identified by the Applicant, only construction and decommissioning road-traffic emissions remain substantively scoped into Chapter 13.

BEPS considers that three defects materially weaken the Applicant’s conclusion that air-quality effects will be ‘not significant’.

First, the measured baseline is overwhelmingly derived from Long Stratton. Seven of the eight diffusion-tube monitoring locations selected by the Applicant are in Long Stratton, as is the Zephyr monitor used for measured NO2, PM10 and PM2.5. Most of the Scheme, by contrast, is dispersed through open agricultural countryside, small villages and hamlets served by minor rural roads. Figure 13.1 itself demonstrates the mismatch between the concentration of monitoring around Long Stratton and the extensive rural Order Limits.

Second, Chapter 13 repeatedly uses generic EPUK/IAQM traffic-flow thresholds as the basis for treating pollutant effects as negligible without receptor-specific dispersion modelling. A screening criterion is a trigger for deciding whether further assessment is required; it is not itself a measurement or prediction of pollutant concentration at an affected dwelling, village or ecological receptor.

Third, even where cumulative construction traffic exceeds those same screening criteria, the Applicant does not undertake quantitative dispersion modelling. Instead, it relies on historic Long Stratton monitoring, predicted future improvements in vehicle emissions, the temporary nature of construction and traffic-management measures to conclude that cumulative effects remain not significant.

The issue is therefore not whether Chapter 13 demonstrates an exceedance of an air-quality objective. It is whether the Applicant has produced sufficiently

representative evidence to justify ruling out significant effects across a geographically dispersed rural NSIP. BEPS submits that it has not.

13.2 Policy and Scoping Requirements

The Energy National Policy Statements remain the primary policy framework for this NSIP. The August 2026 National Planning Policy Framework is nevertheless a relevant material consideration and materially reinforces the air-quality issues raised in this chapter.

Policy P3 requires development to be appropriate for its location having regard to the likely effects, including cumulative effects, of pollution upon health, living conditions and the natural environment. It also requires particular attention to the sensitivity of the surrounding population, including groups such as children and older people who may be more vulnerable to pollution effects. Development should avoid unacceptable effects from pollution and should mitigate and reduce adverse effects to an acceptable degree.

This is directly relevant to East Pye because the Scheme would generate substantial construction traffic across a rural network containing homes, schools, nurseries, farms and sensitive ecological receptors, while the Applicant has not undertaken scheme-specific ambient monitoring across the wider Order Limits and relies substantially upon background mapping, screening thresholds and qualitative dust assessment.

The Planning Inspectorate agreed that construction dust could be scoped out of detailed assessment only on the basis that a construction dust risk assessment would be undertaken, sensitive receptors identified and appropriate mitigation specified in the OCEMP. It also agreed that NRMM emissions could be scoped out only provided that the ES identified the type, number, location and operational hours of NRMM sufficiently to demonstrate that significant effects were unlikely. By contrast, the Inspectorate expressly refused to scope out construction road-traffic emissions because the Applicant’s own forecast of approximately 108 daily two-way HGV movements exceeded the EPUK/IAQM screening criteria.

The Inspectorate similarly agreed to scope NRMM emissions out only conditionally. It required the ES to provide sufficient information on the type, number, location and operational hours of machinery to demonstrate that no likely significant effects would occur. It also specifically directed the Applicant to DEFRA’s PM2.5 guidance and required the ES to explain how key pollution sources had been identified and how PM2.5 and precursor emissions had been minimised.

Road-traffic air quality was therefore not an issue that PINS regarded as inherently insignificant. It was specifically brought back into the assessment because the scale of proposed construction traffic warranted proper examination. The robustness of the final baseline, screening exercise and cumulative assessment is consequently material to the weight that can safely be placed on Chapter 13.

13.3 The Applicant Has No Representative Measured Baseline for the Rural Scheme Area

South Norfolk Council's consultation response materially qualifies the Applicant's statement that there was no relevant local monitoring. The Council states that EarthSense Zephyr monitors are deployed within the area and that the data can be made available on request.

BEPS's point is that the Applicant has not demonstrated that available local monitoring has been incorporated into a representative Scheme-specific baseline covering the principal construction routes, sensitive settlements and receptors likely to experience the highest traffic or dust exposure.

Chapter 13 states at paragraph 13.5.3 that there is 'sufficient baseline data to inform the assessment' and that consequently 'no Scheme-specific air quality monitoring has been undertaken'. That assertion is difficult to reconcile with the geographical distribution of the monitoring evidence actually relied upon.

Of the eight diffusion-tube locations selected for Table 13.7, seven are in Long Stratton. The only exception is DT3 at Poringland. The only continuous indicative monitor relied upon for measured NO2, PM10 and PM2.5 is Zephyr 1516, again positioned beside the A140 in Long Stratton. Figure 13.1 makes the concentration of the measured monitoring around Long Stratton particularly clear.

This is not representative of where most of East Pye would be built. The Scheme consists of numerous geographically dispersed solar sites and cable corridors across predominantly agricultural countryside. The affected environment comprises open fields, hedgerows, woodland, farms, villages, hamlets and minor rural-road networks. Long Stratton is a town and, when most of the monitoring data relied upon were collected, carried strategic A140 through-traffic. It is therefore a materially different receiving environment from the locations in which most of the generating infrastructure and associated construction activity would occur.

The Applicant's own numerical evidence demonstrates the scale of that difference:

Applicant's evidence	2024 annual mean NO2
A140 Long Stratton roadside monitor DT7	**23.7 µg/m³**
Other selected Long Stratton monitors	**14.4–21.5 µg/m³**
DEFRA-modelled background across most Scheme sites	approximately **5.4–6.3 µg/m³**

Table 13.7 records the Long Stratton measurements, while Table 13.9 gives the much lower predicted background concentrations across the Order Limits.

The significance of this comparison is not that the higher Long Stratton concentrations breach the statutory objective: they do not. It is that the Applicant describes monitoring from a substantially more traffic-affected environment as among the ‘closest and most representative’ monitoring locations for a Scheme whose principal generating sites lie elsewhere. Measured NO2 at the selected A140 Long Stratton roadside location in 2024 was more than four times the modelled NO2 background at many Scheme sites. The two environments are plainly not interchangeable.

There is also a temporal problem. The principal diffusion-tube dataset relied upon covers 2020–2024, when A140 through-traffic still passed through Long Stratton before completion of the bypass. Those measurements therefore characterise the former traffic environment of Long Stratton rather than the low-traffic countryside into which much of the Scheme’s construction traffic would be introduced.

The Zephyr monitor does not cure that deficiency. Monitoring commenced on 7 August 2024 and Chapter 13 reports only a single 2024 period mean and a single 2025 period mean to 12 November 2025. The 2024 dataset had only 40% data capture. More importantly, the Applicant does not disaggregate the 2025 data into pre- and post-bypass periods. It therefore provides no evidence from which the Examination can determine the extent to which the 2025 Long Stratton value reflects the changed traffic conditions following opening of the bypass.

The Applicant has therefore modelled background concentrations for the rural Scheme area but has not measured them. Its measured evidence is overwhelmingly drawn from a different and substantially more traffic-affected environment. Figure 13.1 illustrates rather than resolves that deficiency. The statement that the Long Stratton monitoring locations are the ‘closest and most representative’ locations is not demonstrated by the evidence.

This matters because the EPUK/IAQM methodology adopted by the Applicant assesses the significance of pollutant change partly by reference to existing concentrations at the receptor. A representative baseline is therefore not peripheral to the assessment; it forms part of the mechanism by which the scale and significance of change are characterised.

13.4 The Absence of Scheme-Specific Monitoring Is Not Adequately Justified

BEPS does not suggest that IAQM guidance requires bespoke monitoring for every development. The issue here is specific to East Pye. This is a geographically dispersed NSIP extending across numerous rural sites, villages, haul routes and cable corridors, while the measured dataset selected by the Applicant is concentrated overwhelmingly in one town and its former strategic-road corridor.

That distinction is particularly important because the Applicant’s own evidence demonstrates a pronounced difference between measured Long Stratton conditions and the modelled background across the Scheme. Where measured NO2 at the A140 monitoring location was 23.7 µg/m³ in 2024 but modelled NO2 across much of the Order Limits is only around 5.4–6.3 µg/m³, there is an obvious

evidential case for validating the rural baseline at representative affected receptors before relying upon it to underpin conclusions of negligible effect.

A proportionate rural monitoring programme need not have been extensive. Representative diffusion tubes and, where justified, particulate monitoring at a limited number of affected villages, dwellings or construction routes could have established whether the national background mapping accurately characterises local conditions. It would also have provided an auditable pre-construction baseline against which any subsequent deterioration could be identified.

Instead, the assessment moves directly from historic Long Stratton monitoring and national background mapping to screening conclusions. This leaves an important evidential gap: the Applicant has no measured baseline at the rural receptors upon which the Scheme would impose new construction traffic.

Chapter 13 records that South Norfolk Council accepted the general air-quality assessment methodology during pre-application engagement and subsequently supplied monitoring data. That is relevant, but it does not answer this objection. Agreement with the general methodology is not evidence that seven Long Stratton diffusion tubes and one A140 Zephyr monitor are geographically representative of the entire Order Limits. Nor does Chapter 13 record SNC agreeing that Scheme-specific rural monitoring was unnecessary notwithstanding the marked difference between the measured Long Stratton concentrations and the Applicant’s own modelled rural background.

The distinction is important because the Applicant cannot rely on consultee agreement to a methodological framework as proof that every evidential input subsequently used within that framework is representative. The burden remains on the Applicant to demonstrate that the baseline is adequate for the receptors actually affected.

BEPS therefore submits that Chapter 13 has not adequately justified the decision to undertake no Scheme-specific monitoring. This deficiency does not establish that statutory objectives will be exceeded. It does mean, however, that the Applicant lacks representative measured evidence for the low-traffic rural environment across much of the Scheme and has not validated the baseline upon which its subsequent screening and ‘negligible’ conclusions depend.

13.5 Screening Thresholds Are Being Used as a Substitute for Receptor-Specific Assessment

The Applicant relies heavily on the EPUK/IAQM traffic-flow screening criteria to determine whether construction traffic requires detailed air-quality assessment. Appendix 13.2 describes the relevant thresholds outside an AQMA as an increase of more than 500 LDV AADT or more than 100 HDV AADT, expressly describing these as ‘Indicative Criteria to Proceed to a Detailed Air Quality Assessment’.

Chapter 13 then takes a further step. Paragraph 13.5.21 states that where traffic generated by the Scheme falls below those screening criteria, the resulting change in pollutant concentration is simply ‘accepted’ as being less than 0.5% of the relevant Air Quality Objective and the impact is therefore classified as

‘negligible’. No receptor-specific concentration is calculated in reaching that conclusion.

That treatment sits uneasily with the purpose of the screening criteria as described by the Applicant itself. At paragraph 13.11.7, Chapter 13 quotes EPUK/IAQM as explaining that the criteria are precautionary and indicative and are intended to operate as a sensitive ‘trigger’ for initiating assessment where there is a possibility of significant effects. The Applicant's own Scoping Report was clearer still: it stated that the criteria identify circumstances in which there is a possibility of significant air-quality impacts and a detailed dispersion-modelling assessment would be required.

BEPS does not object to the legitimate use of screening criteria to determine where more detailed work may be necessary. The concern is the way those criteria are applied here. A traffic-flow threshold is not a measured or modelled pollutant concentration at a receptor. Chapter 13 nevertheless converts passing the traffic screening test directly into an assumed concentration change of less than 0.5% and hence an assumed negligible environmental effect.

The Scheme-alone assessment illustrates the consequence. Table 13.11 predicts a maximum Scheme increase of 295 AADT on the A140 north of the B1527 and a maximum HDV increase of 70 AADT on the B1332. Because the individual links remain below the generic 500 LDV/100 HDV thresholds, paragraph 13.8.7 concludes that impacts on pollutant concentrations at human receptors are negligible and that the overall effect is not significant. No dispersion modelling of NO2, PM10 or PM2.5 at the affected human receptors is undertaken.

The concern is amplified by the character of the receiving environment. The Applicant's own transport evidence distinguishes the A140 and other arterial routes from the wider network of rural roads, many of which have variable widths, intermittent markings and single-track sections. Earlier Applicant traffic data recorded, for example, only 290 AADT on Triple Plea Road, 552 on Field Lane and 863 on Low Road. The significance of introducing additional HGV traffic alongside rural dwellings and villages cannot therefore be understood simply by asking whether each road remains below a generic absolute screening threshold.

This is particularly important when read with the baseline deficiency identified above. The Applicant has no representative measured air-quality baseline for those rural receptors. The assessment therefore combines an unverified rural baseline with a screening methodology that assumes rather than predicts the resulting concentration change. BEPS submits that this is insufficiently robust to support the blanket conclusion of negligible effects across the Scheme.

Screening criteria are an assessment tool, not a substitute for understanding the receptor. Where traffic increases exceed a screening threshold, or where sensitive receptors lie close to constrained routes, the Applicant should demonstrate why the selected assessment method remains proportionate and why a more detailed receptor-specific assessment is unnecessary.

This is particularly important because the Planning Inspectorate refused to scope out construction traffic emissions precisely because the Applicant’s forecast traffic exceeded the relevant EPUK/IAQM screening criteria.

13.6 Cumulative Traffic Exceeds the Screening Criteria but Still Receives No Quantitative Dispersion Assessment

The weakness becomes more pronounced in the cumulative assessment because the Applicant's own screening thresholds are substantially exceeded.

Table 13.12 predicts cumulative construction increases of 1,387 AADT, including 806 HDVs, on A140 Link 01; 1,313 AADT, including 806 HDVs, on Link 03; and 1,160 AADT, including 806 HDVs, on Link 21. Paragraph 13.11.6 expressly acknowledges that the EPUK/IAQM criteria are exceeded on all three links.

Those are not marginal exceedances. The cumulative HDV increase of 806 AADT is more than eight times the 100 HDV AADT screening threshold applicable outside an AQMA. Yet the exceedance does not trigger quantitative dispersion modelling.

Instead, paragraphs 13.11.8–13.11.11 reason that East Pye itself contributes only a proportion of the cumulative traffic; that historic A140 monitoring remained below the relevant Air Quality Objectives; that pollutant concentrations are expected to improve by the peak construction year; that construction will be temporary; and that construction traffic will be controlled through the CTMP. On that basis the cumulative effect is again declared ‘not significant’.

This creates a significant internal inconsistency in the assessment. Below the screening thresholds, Chapter 13 treats the effect as negligible without modelling. Above the thresholds, it still does not model the effect, but substitutes a qualitative argument for doing so. The Applicant's own Scoping Report had stated that the purpose of these thresholds was to identify where detailed dispersion modelling would be required. As applied in the final ES, the screening methodology therefore appears incapable of triggering the detailed assessment which the screening exercise was designed to identify.

The reliance on historic A140 monitoring is also particularly problematic for the reasons set out in Sections 13.3 and 13.4 above. Much of the monitoring evidence derives from Long Stratton before the bypass, while the cumulative assessment concerns construction conditions in 2029. The Applicant effectively relies simultaneously on historic traffic-polluted monitoring to demonstrate ample headroom against statutory objectives and on anticipated future reductions in pollution to conclude that the much greater cumulative construction traffic will nevertheless remain insignificant. That is not a substitute for modelling the cumulative pollutant concentrations at the receptors actually affected.

There is also a transparency issue. Table 13.12 attributes as many as 739 additional HDV AADT to ‘committed development’ on the A140, but Chapter 13 does not identify in that table which projects generate those flows or their individual contributions. Instead, the reader is referred to the wider cumulative-scheme appendix. Given the scale of the cumulative increase, the air-quality

assessment should make clear which developments, programmes and routing assumptions produce it and whether all material overlapping construction periods are represented.

That issue is not hypothetical. South Norfolk Council identified combined construction effects from multiple major projects, including traffic, disturbance and pollution, as a significant concern. It specifically referred to Tasway Energy Park, Norwich to Tilbury and other consented and proposed energy and infrastructure schemes, stating that their significant cumulative impact on the district had not been adequately explored. Norfolk County Council similarly identified significant cumulative impacts from East Pye together with other major infrastructure as a strategic concern.

BEPS therefore considers that the Applicant should be required to identify the developments and construction programmes underlying the cumulative traffic figures and undertake quantitative dispersion modelling on the links where its own screening thresholds are exceeded. A conclusion of ‘not significant’ based on qualitative reasoning after the Applicant's own trigger for detailed assessment has been substantially exceeded is not sufficiently evidenced.

The fact that traffic exceeds an EPUK/IAQM screening criterion does not, of itself, dictate a particular modelling technique. It does, however, require a sufficiently robust assessment of the likely effect at relevant receptors. Where the Applicant elects not to undertake quantitative dispersion modelling despite exceedance of the screening criteria, it should explain why the available evidence is nevertheless sufficient to exclude significant effects.

That issue becomes more important cumulatively. NPPF Policy P3 now expressly requires consideration of cumulative pollution effects, while National Highways has separately sought a more granular cumulative traffic assessment at affected strategic junctions. The air-quality assessment should therefore be consistent with the transport case ultimately advanced, including any materially revised routeing or worker-traffic assumptions.

13.7 Construction Dust: ‘High Risk’ Before Mitigation

The treatment of construction dust requires similar scrutiny. Chapter 13 acknowledges that earthworks, construction and trackout activities have been assessed as presenting a ‘high risk’ of dust impacts and expressly states that ‘high risk’ is the maximum construction-dust risk category. Nevertheless, construction, operational replacement and decommissioning dust are all scoped out of Chapter 13 on the basis that mitigation contained in the CEMP, OEMP and DEMP will reduce the resulting effects to not significant.

BEPS does not contend that PINS prohibited that approach. The Scoping Opinion agreed that construction dust could be scoped out, but only provided that the OCEMP identified the general construction works, the location of sensitive receptors, the necessary mitigation and how that mitigation would be delivered. The significance conclusion is therefore expressly dependent on the adequacy and enforceability of the mitigation relied upon.

That distinction is important. A high pre-mitigation dust risk has not disappeared merely because a management plan is proposed. It means that effective mitigation is essential to the Applicant's conclusion. Section 13.9 then identifies no additional mitigation because the effects are already said to have been rendered not significant by the embedded measures.

SNC’s Environmental Management comments specifically require PM2.5 to be considered throughout the construction dust risk assessment. The Council also recommends real-time monitoring including PM2.5 and states that the assessment should consider existing background concentrations rather than treating particulate risk solely as a generic construction-dust issue. The Applicant should therefore demonstrate that the final mitigation and monitoring regime responds to PM2.5 as well as PM10, particularly at the most sensitive residential, school and nursery receptors

The Examination should therefore test the substance of the controls rather than simply the existence of an outline plan. For a project dispersed across numerous construction sites, cable routes, compounds and rural haul roads, the secured arrangements need to establish where particulate monitoring will occur; whether PM10 and PM2.5 will be monitored at appropriate sensitive receptors; what trigger levels will require intervention; what measures apply during extended dry or windy conditions; how trackout, wheel washing, haul-road surfacing and vehicle speeds will be controlled; who is responsible for monitoring and corrective action; and how those commitments are secured and enforced through the DCO.

The ecological dimension is also material. Natural England specifically identified a series of SSSIs whose notified habitats or species may be sensitive to air-quality change and required assessment of construction traffic and dust, including Sexton Wood, Flordon Common, Hedenham Wood and Tindall Wood, Ditchingham. Norfolk Wildlife Trust separately identified construction-related air-quality impacts on habitats and species as an important issue in its statutory consultation response.

The Applicant's conclusion can therefore only be relied upon if the mitigation on which it depends is sufficiently specific, receptor-based and enforceable. The fact that the underlying dust risk is categorised as ‘high’ makes that a substantive examination issue rather than a matter that can simply be left to post-consent management.

13.8 PM2.5 and Human Health: Compliance Is Not the Same as Minimisation

Chapter 13 records an important warning from the UK Health Security Agency. UKHSA advised that pollutants associated with road traffic and combustion, particularly particulate matter and nitrogen oxides, are non-threshold pollutants: an exposed population may be subject to potential harm at any level, and reducing exposure below statutory air-quality standards can still provide public-health benefits. UKHSA specifically supported approaches that minimise exposure, address inequalities in exposure and maximise wider health benefits.

Norfolk County Council Public Health similarly advised that potential health impacts should form an integral part of the construction-dust assessment, particularly in relation to vulnerable populations.

The Applicant's principal response is that standard UK practice assesses development against regulatory standards, while also stating that DEFRA's PM2.5 planning guidance has been considered. That does not fully answer the point made by UKHSA. Whether a statutory objective is exceeded and whether avoidable exposure has been minimised are different questions.

The distinction is particularly relevant here because the Applicant's own background modelling indicates a comparatively clean rural environment. Table 13.9 predicts PM2.5 concentrations generally around 5.6–6.2 µg/m³ across the Order Limits in 2025, substantially below the 10 µg/m³ interim annual mean target. The fact that existing concentrations are low is not a reason to disregard additional exposure; it is evidence that the Scheme is introducing traffic and construction emissions into locations where existing pollution is comparatively limited.

Chapter 13 identifies measures such as reducing worker trips, construction routing, green infrastructure and the absence of a centralised combustion energy centre as contributing towards PM2.5 reduction. However, it does not quantify the contribution of those measures or demonstrate at receptor level how far emissions and exposure have been minimised. The principal traffic assessment continues to turn on whether generic screening thresholds or statutory objectives are exceeded.

BEPS therefore submits that the Applicant should demonstrate not merely that predicted concentrations remain below regulatory limits, but that PM2.5 emissions and exposure have been reduced as far as reasonably practicable, particularly at residential and other vulnerable receptors along construction routes. Wider consequences for children, older residents and other vulnerable groups are addressed in the Human Health chapter and are not repeated here.

The point is not that East Pye has been shown to breach an air-quality objective. The issue is that compliance with an ambient standard does not remove the separate planning requirement to minimise avoidable pollution effects, particularly where vulnerable receptors are present and where the Scheme may increase particulate exposure during construction.

The August 2026 NPPF reinforces this distinction through Policy P3 by requiring consideration of the sensitivity of the affected population and cumulative pollution effects rather than relying solely on compliance with statutory concentration limits.

13.9 Other Emission Sources Are Scoped Out or Deferred

A number of additional emission pathways are removed from substantive assessment on the basis of compliance assumptions, future design or later management. Individually these issues are secondary to the baseline and traffic-assessment deficiencies above, but together they reinforce the narrowness of Chapter 13.

For NRMM, PINS agreed to scoping out only on the express condition that the ES provide information on the **type, number, location and operational hours** of the machinery sufficient to demonstrate that no likely significant effects would occur. Chapter 13 states that information on type and number is contained in Chapter 4, that emissions standards are secured through the CEMP and that working hours are contained in the CEMP. It does not, however, identify in its response to the Scoping Opinion where the required information on the location of NRMM is provided. The Applicant should identify precisely where each element of PINS's conditional scope-out has been discharged rather than relying on a general reference to regulatory emissions compliance.

The position on the National Grid substation backup generator is more significant. PINS agreed at scoping stage that operational combustion emissions could be scoped out on the stated basis that **'no combustion plant is proposed'** and expressly required the project description to confirm that there would be no operational plant emissions requiring further assessment. That factual premise has subsequently changed.

The final ES now provides for a backup diesel generator of up to 500 kVA at the National Grid substation if a local-grid connection is not possible. Its specification has not been defined. Chapter 13 nevertheless concludes that its air-quality effects will be not significant because operation is expected to be infrequent, the nearest residential receptor is more than 250 m away and mitigation such as increased stack height and Selective Catalytic Reduction could be used. Detailed assessment is deferred until after the generator has been specified and would only be undertaken if its emissions exceed the 5 mg/s screening criterion.

The basis on which PINS originally agreed to scope combustion emissions out therefore no longer exists. The ES now contains an operational combustion source but declares it non-significant before its specification or emissions have been established, relying in part on mitigation that has itself not yet been designed. The appropriate course is to assess a defined generator or a robust worst-case specification within the examination, rather than defer the substantive emissions assessment until after consent.

Lifecycle replacement activity is treated in a similarly assumption-led manner. The Applicant's own Scoping Report states that solar panels may require replacement up to twice and batteries up to four times over the operational life of the Scheme. Chapter 13 nevertheless scopes operational road-traffic emissions out, stating that approximately five routine maintenance visits per month and vehicle movements associated with panel and BESS replacement remain below the EPUK/IAQM thresholds. Fugitive dust associated with those replacement activities is also scoped out and managed through the OEMP.

BEPS does not suggest that each replacement event will necessarily reproduce the full construction phase. The concern is that repeated large-scale replacement of major components over a 60-year operating life is a foreseeable part of the Scheme rather than an exceptional event. The Applicant should therefore provide a transparent replacement scenario, associated traffic assumptions and the basis on which those activities have been screened out, rather than relying on broad statements that the resulting traffic will remain below generic thresholds.

BESS-fire emissions are addressed separately in the Outline Battery Safety Management Plan and are only signposted here. Chapter 13 itself acknowledges that a BESS fire can generate emissions to air but scopes the pathway out on the basis of the 200 m residential offset and mitigation in the BSMP. BEPS's substantive concerns regarding fire scenarios, plume effects and emergency response are addressed in the Major Accidents and Disasters/BESS chapter and should be read alongside this air-quality representation. The human-health and air-quality implications of the emergency plume scenario must remain consistent with the BESS safety case ultimately relied upon.

13.10 Decommissioning Is Based Predominantly on Assumption

The Applicant’s decommissioning air-quality conclusion is not based on a quantified decommissioning scenario. It assumes that decommissioning traffic will be similar to or lower than construction traffic, that future vehicles and plant will have lower emissions, and that construction-style mitigation can be reapplied approximately six decades from now.

The Scoping Report itself adopted essentially the same approach, stating that decommissioning emissions were anticipated to be similar to or less than construction emissions and could therefore be managed through a future Decommissioning Environmental Management Plan.

BEPS does not suggest that the Applicant can predict vehicle technology or ambient air quality in detail 60 years in advance. The appropriate requirement is a clearly defined reasonable worst-case decommissioning envelope which identifies the types of activity capable of generating dust and traffic emissions and secures a process for demonstrating compliance when decommissioning takes place.

The present conclusion is therefore conditional rather than demonstrated. It rests upon assumptions that future plant will be cleaner, traffic will not exceed the construction case and comparable mitigation will remain available.

13.11 Overall Conclusion

BEPS does not contend that the evidence presently demonstrates widespread exceedance of statutory air-quality objectives. The concern is that Chapter 13 has not demonstrated with sufficient evidential robustness that the effects of this geographically dispersed Scheme will be negligible or not significant at the receptors actually affected.

The weaknesses are cumulative. The measured baseline is overwhelmingly derived from Long Stratton rather than from the rural Scheme area; most of the generating sites and construction routes lie in materially different low-traffic countryside; no Scheme-specific monitoring validates the much lower modelled rural background; sub-threshold traffic flows are automatically treated as producing negligible concentration changes; and cumulative traffic substantially exceeds the Applicant's own screening criteria without triggering quantitative dispersion modelling. Dust, NRMM, operational replacement activity and generator emissions are then controlled through assumptions, outline

management measures or later assessment rather than being fully resolved within Chapter 13.

The Applicant's own evidence illustrates the baseline problem particularly clearly. In 2024 the selected A140 Long Stratton roadside monitor recorded annual mean NO2 of 23.7 µg/m³, while the Applicant's own DEFRA mapping predicts NO2 concentrations across much of the Order Limits of only approximately 5.4–6.3 µg/m³. This is not a minor spatial variation. It demonstrates that the traffic-influenced Long Stratton environment from which most of the measured evidence is drawn is materially different from the rural receiving environment across most of East Pye.

The cumulative assessment then exposes a further methodological weakness. The Applicant relies on the EPUK/IAQM criteria to justify no modelling where the Scheme-alone traffic falls below the screening thresholds, yet declines to model cumulative effects even when the same criteria are substantially exceeded. The resulting conclusion of no significant effect therefore rests heavily on qualitative judgement, historic monitoring and predicted future improvement rather than quantified concentrations at the affected receptors.

Taken together, these matters materially reduce the weight that can safely be placed on Table 13.14 and the conclusion that all assessed construction and decommissioning air-quality effects are ‘not significant’. The evidence does not establish that significant effects will necessarily occur; it does establish that the Applicant has not yet provided the receptor-specific evidence necessary to exclude them with the confidence claimed.

13.12 Remedies Sought

BEPS requests that the Examining Authority require the Applicant to provide sufficient additional information during the Examination to resolve the evidential deficiencies identified above.

In particular, the Applicant should be required to provide a receptor-based air-quality assessment founded on a representative current baseline for the rural Scheme area. That should either include proportionate monitoring at representative rural receptors or provide a clear technical justification, supported by validation evidence, for why the DEFRA background mapping alone is sufficient. Historic Long Stratton monitoring should be distinguished explicitly from the conditions at the rural project sites and, where Long Stratton data continue to be relied upon, pre- and post-bypass conditions should be separated.

The Applicant should undertake quantitative dispersion modelling on the road links where its own cumulative EPUK/IAQM screening criteria are exceeded and report predicted NO2, PM10 and PM2.5 concentrations at appropriate human receptors. It should also identify transparently the developments, construction programmes and routing assumptions producing the cumulative traffic figures, including the 739 additional HDV AADT attributed to committed development on the A140, and demonstrate that all relevant overlapping projects and final construction routes have been captured.

For construction dust and PM2.5, the Applicant should demonstrate that the controls relied upon to reduce the acknowledged ‘high risk’ dust pathway to a

not-significant effect are specific and enforceable. The secured framework should identify appropriate monitoring locations, pollutants to be monitored, trigger levels, action thresholds, controls during prolonged dry or windy conditions, trackout and haul-road measures, responsibility for intervention and the mechanism by which compliance will be enforced.

The Applicant should also demonstrate expressly how each condition attached to the Inspectorate's air-quality scope-outs has been discharged. This should include the required information on NRMM type, number, location and operating hours; the basis for scoping operational replacement activity out; and the measures by which decommissioning effects are constrained within a clearly defined worst-case envelope. PINS's Scoping Opinion required these matters to be justified by evidence and, where mitigation is relied upon, to be clearly secured.

The backup diesel generator requires particular resolution. PINS agreed to scope operational combustion emissions out on the factual basis then presented that no combustion plant was proposed. The final Scheme now includes provision for a diesel generator of up to 500 kVA whose specification and emissions remain undefined. The Applicant should either specify and assess the proposed generator during the Examination or undertake a robust worst-case assessment against parameters secured through the DCO. Assessment of an undefined emissions source should not simply be deferred until after consent.

Pending that information, BEPS asks the Examining Authority to give limited weight to Chapter 13's conclusion that all residual air-quality effects are negligible or not significant. The Applicant should be required to demonstrate that conclusion through representative baseline evidence and receptor-specific assessment, rather than through screening assumptions and post-consent controls alone.

Chapter 14: Socio-Economics

14.1 Executive summary

The Applicant’s socio-economic case is materially overstated. Chapter 14 counts employment, skills and supply-chain activity as benefits, but does not demonstrate that those benefits will be local, genuinely additional, deliverable or secured. At the same time, it understates foreseeable adverse effects on tourism, temporary accommodation, the private rented sector, local businesses, agriculture, community wellbeing and cumulative labour-market capacity.

The employment case rests on headline workforce figures rather than a robust assessment of net local benefit. The Applicant forecasts an average construction workforce of 278 workers per day, a peak of approximately 720 workers and about 360 ‘net direct’ jobs after applying a 50% displacement rate. Yet the evidence does not adequately explain the basis for that displacement assumption, how leakage has been treated, how many jobs would be filled by South Norfolk residents, or how many would simply be taken by an existing mobile construction workforce.

The labour-market geography is also poorly defined. Chapter 14 uses administrative study areas extending from the Order Limits to South Norfolk, Norfolk, Suffolk, the East of England and England, but does not identify a functional labour market by occupation, phase or travel-to-work behaviour. Suffolk County Council states that Suffolk is included formally but not analysed substantively, and that the assessment does not demonstrate how cross-boundary workforce effects or benefits would arise.

Leakage, displacement and additionality are acknowledged as difficult to quantify, but that uncertainty is not reflected in the weight assigned to the claimed benefits. Chapter 14 accepts that wider socio-economic effects require professional judgment because local evidence is limited, yet still attributes major and moderate beneficial effects to employment and skills. Suffolk County Council considers those conclusions unjustified because they derive largely from gross employment estimates rather than a realistic assessment of net additional benefit or delivery.

The workforce and accommodation case is similarly weak. The Applicant estimates that only around 120 workers may require temporary accommodation, but does not provide a sufficiently detailed breakdown of worker origin, duration of stay, rotation, accommodation type or seasonal demand. Mid Suffolk District Council and Suffolk County Council both identify the risk of pressure on tourism accommodation, private rented housing and affordability, particularly when other major projects are drawing on the same regional stock.

Cumulative effects are underassessed. The Applicant tends to aggregate employment generated by multiple projects as a cumulative benefit, without adequately assessing competition for skilled labour, wage inflation, displacement, training-capacity constraints, accommodation demand and delivery risk. Suffolk County Council identifies Sizewell C and other major infrastructure projects as material competing demands on the same finite regional workforce.

The Outline Employment, Skills and Supply Chain Strategy is generic and weakly secured. It does not contain binding local employment targets, quantified apprenticeship commitments, enforceable local supply-chain expenditure, clear governance arrangements or meaningful consequences for underperformance. Both Suffolk County Council and South Norfolk Council seek stronger authority involvement in the detailed strategy and its discharge.

Tourism is assessed too narrowly. Chapter 14 identifies tourism employment, nearby attractions and accommodation capacity, but does not adequately assess the economic consequences of landscape industrialisation, construction traffic, loss of tranquillity, disruption to rights of way, reduced visitor appeal or displacement of tourist accommodation by workers.

Other adverse socio-economic effects are fragmented across the ES. Agricultural business impacts sit in the soils chapter; business-access effects sit in transport; mental wellbeing and attachment to place sit in health and equality documents; and effects on recreation and tranquillity sit in landscape and PRoW assessments. The result is that the Applicant counts benefits in Chapter 14 while dispersing the corresponding local costs across other chapters.

The claimed benefits are therefore uncertain, while many of the harms are immediate and concentrated. They fall on local residents, farmers, tourism businesses, tenants and small firms, while much of the claimed employment and supply-chain activity may accrue outside South Norfolk.

Chapter 14 does not provide a sound evidential basis for assigning substantial weight to the claimed socio-economic benefits. Those benefits should be treated as uncertain unless the Applicant provides detailed workforce, skills, accommodation and delivery evidence and secures measurable outcomes through enforceable DCO Requirements.

14.1.1 Updated policy and scoping context

The Energy National Policy Statements remain the primary policy framework for this NSIP. The August 2026 National Planning Policy Framework is nevertheless a relevant material consideration and gives additional weight to several of the issues raised in this chapter.

The current NPPF supports sustainable economic growth in both urban and rural areas and expressly recognises the importance of agriculture, other rural and land-based businesses, leisure and tourism to local economic resilience. Policy E4 supports the sustainable growth and diversification of rural businesses, facilities supporting rural leisure and tourism, accessible local shops and services, and development which maintains and enhances farm viability and domestic food production.

The socio-economic assessment is also subject to an important project-specific scoping history. The Applicant originally proposed to scope socio-economic effects out on the basis that predicted positive and adverse effects would either be insignificant or addressed elsewhere in the ES. The Planning Inspectorate expressly rejected that approach because insufficient baseline evidence had been provided to rule out significant socio-economic effects and required a standalone socio-economic assessment informed by relevant NSIP socio-economic guidance.

The relevant examination question is therefore not merely whether Chapter 14 now exists as a standalone chapter. It is whether it addresses, with sufficient evidence, the local employment, labour-supply, accommodation, tourism, rural-business and community effects which caused the Inspectorate to require that standalone assessment in the first place.

14.2 Scope of Chapter 14 is too narrow

14.2.1 Socio-economic effects are reduced to four topics

Chapter 14 limits its assessment to four principal matters: employment; education, skills and training; temporary worker accommodation; and tourism. That scope is too narrow for a 1,212-hectare, landscape-scale project with a proposed operational life of 60 years.

The assessment does not bring within its socio-economic framework the effects on agricultural businesses and the rural economy. Norfolk County Council identifies the loss of high-quality agricultural land as a strategic concern not only for food production but for the wider farming community. Yet Chapter 14 does not assess farm-business restructuring, tenancy effects, agricultural employment, local contractors, machinery services or the economic activity displaced from productive land.

Nor does it assess disruption to local firms arising from road closures, abnormal-load movements, construction traffic, access restrictions, dust or noise. South Norfolk Council expressly identifies cumulative economic consequences for local businesses and tourism from overlapping infrastructure construction. These are socio-economic effects, not merely transport or amenity matters.

Housing-market effects are also inadequately addressed. Mid Suffolk District Council identifies the risk that temporary workers may compete for private rented properties, reduce availability for local households and worsen affordability. Chapter 14 focuses on hotel, B&B and short-term-let capacity but does not assess whether landlords may switch stock from ordinary residential use, whether rents may rise, or whether lower-income households may be displaced.

The treatment of business effects is similarly incomplete. Home-based businesses, equestrian enterprises, farms, tourism accommodation, cafés and other rural enterprises may be affected by construction disruption, reduced visitor confidence, noise, landscape change or access constraints. Chapter 14 does not identify them as a discrete receptor group or assess their vulnerability.

The chapter also omits a proper assessment of community cohesion, public-service demand, wellbeing and attachment to place. Norfolk County Council records concern about long-term mental-health effects, anxiety, perceived safety, community disruption and fears about housing and business values, particularly for elderly and vulnerable residents. Those effects have clear socio-economic dimensions but are not integrated into Chapter 14.

Most importantly, the Applicant does not assess who receives the benefits and who bears the harms. Mobile construction workers and national contractors may capture the employment and supply-chain benefits, while local residents,

farmers, tenants and small businesses bear the adverse effects. A socio-economic assessment that does not address that distribution is incomplete.

The Scoping Opinion is important in this respect. PINS did not require a standalone socio-economic chapter merely so that four selected topics could be re-presented in one place. It did so because the available baseline was insufficient to exclude significant socio-economic effects. The final assessment should therefore demonstrate that the relevant economic and population receptors have actually been identified and assessed rather than relying upon other ES chapters to fragment effects which are experienced cumulatively by the same businesses and communities.

14.2.2 Cross-chapter effects are not brought together

The Applicant places relevant socio-economic consequences across separate ES chapters on transport, landscape, agriculture, health, recreation and equality. That may be administratively convenient, but it prevents a coherent assessment of the combined economic and social effect of the Scheme.

For example, construction traffic may cause delay, road closures and loss of customer access; landscape change may reduce visitor appeal; loss of tranquillity may affect tourism accommodation; agricultural land take may alter farm viability; and cumulative construction may affect mental wellbeing and community confidence. Each effect may be discussed elsewhere, but Chapter 14 does not bring them together to assess their combined consequences for local businesses, households and the rural economy.

This matters because the Scheme's socio-economic effects will not occur in isolation. A B&B may experience construction noise, traffic disruption, landscape change and displaced visitor demand simultaneously. A farm business may face land take, altered access, workforce disruption and long-term restructuring. A village may experience pressure on housing, public services, roads and community cohesion at the same time.

The social and economic consequences of a landscape-scale energy project cannot be understood by counting jobs in Chapter 14 while leaving the costs to tourism, farming, housing, business access and community wellbeing elsewhere. The Applicant should provide an integrated cross-chapter socio-economic assessment rather than relying on fragmented topic-by-topic conclusions.

14.3 The employment case is gross, not net

BEPS does not dispute that construction of a project of this scale would generate substantial employment demand. The narrower issue is the extent to which that demand constitutes a local or additional socio-economic benefit rather than gross project employment which may be filled by workers already active elsewhere in the regional or national construction and energy sectors.

14.3.1 Headline job numbers are not the same as local benefit

The Applicant identifies an average construction workforce of approximately 278 workers per day, a peak workforce of around 720 and approximately 360 net direct jobs after applying a 50% displacement rate. Those figures are presented as evidence of substantial socio-economic benefit, but they do not establish a corresponding benefit to South Norfolk.

The basis for the 50% displacement assumption is not adequately demonstrated. Nor is it clear whether the resulting ‘net’ figure also accounts for leakage out of the local area, substitution between projects, deadweight or the use of workers already employed in the construction sector. Chapter 14 acknowledges that leakage and displacement are difficult to quantify and require professional judgment, but does not provide sufficient local evidence to justify the assumptions adopted.

The assessment also does not state with sufficient clarity how many workers would be resident in South Norfolk, how many would come from elsewhere in Norfolk or Suffolk, and how many would be drawn from the national mobile construction workforce. It does not identify the proportion of genuinely new entrants, unemployed residents, apprentices or workers displaced from other local employers.

These distinctions are critical. A worker temporarily reassigned from another infrastructure scheme is not a new local job. A contractor travelling into the district is not a local employment benefit merely because the work occurs within South Norfolk. A short-term role filled by an existing mobile worker does not demonstrate enduring economic improvement.

The Applicant should therefore disclose the derivation of the displacement rate, the leakage assumptions, the home-based and non-home-based workforce split, and the number of jobs expected to be genuinely additional to the local economy.

The distinction matters because gross job numbers do not identify displacement, leakage or the proportion of posts likely to be filled by residents of the study area. Nor do they establish that the Scheme creates equivalent long-term employment: the operational workforce is materially smaller than the temporary construction workforce.

14.3.2 Local benefit is likely to be limited

Suffolk County Council concludes that only a small proportion of the employment generated by the Scheme would be realised locally, with the majority supported outside the host and neighbouring areas. It considers that the Applicant has therefore overstated the magnitude and significance of the local beneficial effects.

That criticism is consistent with the Applicant’s own baseline. South Norfolk is a net exporter of labour, with 54% of employed residents travelling outside the district for work, while 57% of those working in South Norfolk live elsewhere.

These figures show a highly interconnected labour market, but they do not prove that East Pye jobs will be filled by local residents.

The construction sector already accounts for 17% of employment in the defined Local Area, substantially above the proportion in South Norfolk, Norfolk, Suffolk and England. That may indicate some local capacity, but it may equally mean the existing workforce is already fully engaged and vulnerable to displacement or wage competition. Chapter 14 does not test either possibility.

A job created by the Scheme is not automatically a benefit to South Norfolk. The available evidence does not demonstrate what proportion of the construction workforce can realistically be sourced locally, particularly for specialist HV, substation, BESS, cable-jointing and grid-infrastructure roles. The Applicant should therefore distinguish between total construction employment, jobs expected to be filled within South Norfolk or Norfolk, and specialist labour likely to be imported from the wider region or nationally. Cleve Hill's construction workforce were sourced from Greece. Chapter 14 does not answer those questions about local employment with sufficient precision.

14.3.3 Construction employment is short-lived

The Applicant expects the construction phase to last approximately 24 months. The headline peak of 720 workers will therefore be temporary and will not represent the typical workforce throughout the build period.

The assessment should clearly distinguish between the peak workforce, the average daily workforce, full-time-equivalent employment, local resident employment and wider regional or national supply-chain activity. These are different measures and should not be presented as interchangeable evidence of benefit.

The long-term operational employment case is substantially weaker than the construction case. Solar and BESS developments are relatively low-employment operations once built, and Chapter 14 does not establish that the operational phase will generate a significant number of durable local jobs.

The Applicant should therefore not present a brief construction peak as a durable transformation of the local economy. Temporary employment may carry some weight, but that weight must reflect its duration, geographical distribution, additionality and the extent to which it is secured. The planning balance should distinguish sharply between a two-year construction surge and lasting local economic benefit.

14.4 Labour-market geography is inadequately defined

14.4.1 No coherent functional labour market

Chapter 14 does not define a coherent functional labour market for the Scheme. It identifies a series of administrative study areas, but it does not establish where the construction workforce will actually come from, how far workers will travel, which occupations are locally available, or how labour sourcing will vary between construction, operation, maintenance and decommissioning.

Suffolk County Council identifies this as a material defect. It states that Suffolk is formally included within the assessment, but is not substantively analysed as a distinct or functional labour market. The assessment remains predominantly Norfolk-focused and does not provide robust cross-boundary workforce modelling, skills-capacity analysis or delivery mechanisms for Suffolk, despite the interconnected nature of the regional labour market.

That omission is serious because the Applicant's own baseline shows that South Norfolk is not a self-contained labour market. Only 46% of employed South Norfolk residents work within the district, while 54% commute elsewhere. Conversely, only 43% of those working in South Norfolk also live there, meaning that 57% of the district's workforce is imported from outside. Those figures demonstrate cross-boundary labour movement, but they do not establish that the Scheme can recruit the required workforce or that employment benefits will accrue locally.

The Applicant should therefore define the functional labour market by evidence, not administrative convenience. It should provide:

- workforce catchments for each project phase;
- travel-to-work assumptions;
- home-based and non-home-based worker splits;
- occupational and skills requirements;
- expected labour sourcing by district and county;
- the relationship between recruitment geography and accommodation demand;
- the proportion of jobs expected to be filled by existing workers, new entrants and trainees.

Until that work is done, the Applicant cannot reliably claim that the Scheme will deliver substantial local employment benefits.

14.4.2 The study areas are administratively convenient, not economically realistic

Chapter 14 uses the Order Limits, a collection of surrounding Lower Layer Super Output Areas, South Norfolk, Norfolk and Suffolk, the East of England and England as its study areas and comparators. Those areas provide baseline statistics, but they do not explain how the labour market will operate in practice.

Nested administrative boundaries are not a substitute for a functional economic geography. They do not show which workers possess the required qualifications, whether those workers are already employed, how far they are willing to travel, whether training providers can supply the required skills, or how concurrent infrastructure projects will affect labour availability.

Suffolk County Council states that the absence of defined workforce geographies prevents meaningful assessment of labour-market effects, infrastructure impacts and community interaction. It also prevents coordinated planning through the regional skills system.

The Applicant must therefore demonstrate the labour market through travel patterns, occupational supply, skills capacity, contractor recruitment practice

and competing project demand. Without that evidence, the study areas are descriptive only. They cannot support the conclusion that the claimed jobs are locally deliverable or that the regional labour market can absorb the Scheme without displacement or imported labour.

This uncertainty affects more than the claimed employment benefit. Workforce origin determines accommodation demand, commuting patterns, worker traffic, local expenditure and the extent to which economic benefit is retained within the local study area. The same assumption should therefore be used consistently across Chapters 11 and 14.

14.5 Skills benefits are asserted, not demonstrated

The August 2026 NPPF gives additional context to this issue through its objective of supporting business investment, employment and long-term economic growth while recognising the characteristics and needs of particular local economies.

BEPS does not suggest that national policy requires a fixed quota of local workers or apprenticeships for every NSIP. However, where the Applicant relies upon local employment, training and skills uplift as positive effects in the planning balance, the Examination should be able to identify what is actually committed, how delivery will be measured and what proportion of the claimed benefit is reasonably likely to occur.

14.5.1 No demand-led skills analysis

The Applicant claims beneficial effects through education, skills, training and supply-chain opportunities, but does not provide a sufficiently detailed demand-led assessment of the workforce required to deliver them. Chapter 14 identifies broad categories of employment and skills, but does not transparently define demand by occupation, qualification, project phase or duration.

Suffolk County Council states that the assessment does not provide the granular workforce modelling required to determine how many workers are needed, what skills they must possess, when those skills are required or for how long. It also notes the absence of a distinction between key construction roles and between home-based and non-home-based employment.

A meaningful skills assessment should identify:

- each principal occupational role;
- the qualifications and experience required;
- the number of workers required by phase;
- the timing and duration of demand;
- the number of apprenticeships and training places;
- the number of trainees expected to complete;
- the capacity of local further-education and training providers;
- the proportion of trainees likely to obtain employment on the Scheme or elsewhere.

Without that information, the claimed skills benefit is aspirational. The Applicant has not shown that the local training system can produce the required workforce, that local residents can access the opportunities, or that the training will lead to durable employment.

14.5.2 Existing skills constraints are not properly assessed

Chapter 14 classifies skills and the labour market as a high-sensitivity receptor. It relies on lower qualification levels in some comparator areas, labour-market mismatch and dependence on workers from outside the district.

That finding should trigger a rigorous capacity assessment. Instead, the Applicant treats the same labour market as capable of supplying the Scheme and generating major or moderate beneficial effects without properly assessing existing shortages, training constraints or competing demand.

Suffolk County Council states that the Applicant has not adequately assessed skills shortages, barriers to local labour participation, further-education capacity, apprenticeship pipelines or alignment with local skills strategies. It concludes that the sensitivity of the labour market and skills system is not robustly evidenced and that the Applicant has not demonstrated sufficient capacity to support the Scheme.

The contradiction is stark. A high-sensitivity labour market cannot simply be assumed capable of supplying a major infrastructure project. If the existing system is already constrained, the Scheme may intensify shortages, displace workers from other sectors, increase reliance on imported labour and create delivery risk.

The Applicant must therefore quantify existing and forecast skills gaps, identify available training capacity and demonstrate how those constraints will be overcome. Until then, the claimed skills benefit should be given little weight.

14.5.3 Training commitments are not enforceable

The Outline Employment, Skills and Supply Chain Strategy does not secure measurable outcomes. It describes broad intentions to promote employment, training, skills and supply-chain participation, but does not fix binding local employment targets, apprentice numbers, trainee places, completion rates or post-training employment outcomes.

Suffolk County Council identifies the absence of secured mitigation and delivery mechanisms as a major weakness. It states that there is no evidence that local employment, training or skills commitments are adequately secured through the DCO and that, without a detailed enforceable strategy, the claimed benefits remain uncertain.

A promise to prepare a later strategy is not evidence that benefits will occur. Unless commitments are quantified, monitored and enforceable, they remain discretionary and may be reduced after consent without consequence.

14.6 The Outline Employment, Skills and Supply Chain Strategy is insufficient

14.6.1 No quantified commitments

The Outline Employment, Skills and Supply Chain Strategy is too general to support the weight the Applicant places on socio-economic benefits. It does not clearly secure:

- local employment targets;
- apprenticeship numbers;
- training places;
- local or regional supply-chain expenditure;
- SME participation;
- reporting frequency;
- performance indicators;
- corrective action if targets are missed.

Suffolk County Council describes the Strategy as largely descriptive and insufficiently detailed to inform assessment of workforce, housing, accommodation, transport and public-service effects. It also states that supply-chain opportunities are identified but not quantified and that local business capacity has not been assessed.

Without quantified commitments, the Strategy cannot demonstrate either deliverability or additionality. It cannot establish how many local residents will benefit, how much expenditure will remain in the region, or whether smaller local businesses will gain access to contracts.

The detailed Strategy should therefore be required to include binding numerical targets, reporting duties and remedial measures. General statements of intent should carry no material weight.

14.6.2 No clear governance

The governance arrangements are also inadequate. Suffolk County Council seeks named consultation rights, participation in joint governance, agreed performance measures and a formal role in the preparation, implementation and monitoring of the detailed Strategy. It specifically requests that SCC be named as a consultee in the relevant DCO Requirement.

South Norfolk Council likewise requests that Norfolk County Council be consulted on the discharge of the Skills, Supply Chain and Employment Requirement.

Those requests are justified. The Strategy concerns cross-boundary labour markets, education provision, apprenticeships, supply-chain development and cumulative project demand. It cannot be left solely to the Applicant and a single host authority.

The DCO should name the relevant local authorities, regional skills bodies, further-education providers and economic-development partners as consultees.

It should require agreed monitoring arrangements, published performance data and review mechanisms throughout construction.

14.6.3 Benefits should not be given weight unless secured

The Applicant presents employment, skills and supply-chain outcomes as planning benefits, but the mechanism for delivering them remains outline and largely discretionary.

An outline strategy is not itself a benefit. Only commitments that are fixed in the DCO, measurable, monitored and enforceable should carry material weight in the planning balance.

Where the Applicant seeks positive weight for local jobs, apprenticeships or supply-chain expenditure, it must accept corresponding binding obligations. If it will not secure the outcomes, the decision-maker cannot assume they will occur.

The weight attributed to employment and skills benefits should reflect their degree of certainty. Aspirational measures may still be relevant, but they should not be given the same weight as quantified commitments secured through the DCO or another enforceable mechanism. If the Applicant relies materially upon apprenticeships, local procurement, training placements or supply-chain expenditure as Scheme benefits, the final strategy should identify measurable outputs, reporting arrangements and a delivery mechanism capable of being monitored.

14.7 Cumulative labour-market effects are materially underassessed

Cumulative labour demand is not necessarily an adverse effect. Several simultaneous infrastructure projects may increase employment and training opportunities. The corresponding issue is whether competition for the same specialist workforce could reduce the local share of employment, generate additional inward commuting, place greater pressure on temporary accommodation or create labour-supply constraints for other local employers.

The cumulative assessment should therefore consider both sides of the effect rather than counting the employment generated by each project as an additive benefit while ignoring competition for the same labour pool.

14.7.1 Multiple projects draw from the same finite workforce

The Scheme will not recruit in isolation. Norfolk and Suffolk are already subject to an exceptional concentration of major energy, transmission, road and construction projects drawing on the same regional and national labour pool.

Suffolk County Council identifies Sizewell C as a major existing demand that is not adequately reflected in the cumulative assessment. It also points to the wider interaction with other NSIPs and major infrastructure projects across Norfolk and Suffolk. Mid Suffolk District Council similarly requires the cumulative assessment to use up-to-date construction programmes, transparent overlap

assumptions and realistic modelling of labour, accommodation and socio-economic pressures.

The cumulative assessment should include, at minimum:

- Sizewell C;
- Norwich to Tilbury;
- Sea Link;
- other solar and BESS NSIPs;
- offshore wind projects and associated infrastructure;
- National Highways schemes;
- other major developments in Norfolk and Suffolk.

It should identify construction peaks, occupational overlap, recruitment geography, training demand and accommodation consequences. Without that work, the Applicant cannot establish that the workforce will be available or that the claimed benefits are deliverable.

14.7.2 Aggregating jobs is not cumulative assessment

The Applicant's cumulative case appears to treat employment generated by multiple projects as an additional beneficial effect. That approach is fundamentally incomplete.

Suffolk County Council states that the assessment aggregates employment outputs rather than assessing labour-market capacity. It does not adequately examine competition for skilled workers, displacement between projects, wage inflation, training constraints or delivery risk.

Multiple schemes do not create unlimited labour. They compete for the same electricians, engineers, plant operators, drivers, construction managers, environmental specialists, accommodation and training places. Where demand exceeds supply, the result may be imported labour, increased costs, delayed programmes and displacement from existing businesses.

A cumulative assessment must therefore ask whether the workforce exists and what happens when several projects require it at the same time. Simply adding job numbers together converts a potential constraint into a purported benefit and materially overstates the socio-economic case.

14.7.3 Scenario testing is required

The cumulative assessment should test a range of realistic labour-market scenarios rather than relying on a single professional-judgment outcome.

At minimum, it should model low, medium and high scenarios for:

- local labour availability;
- reliance on imported workers;
- construction-programme overlap;
- temporary accommodation demand;
- workforce displacement;
- wage pressure;

- training-provider capacity;
- delay and delivery risk.

Suffolk County Council expressly criticises the absence of scenario testing and workforce modelling. It notes that the Applicant has not tested alternative levels of home-based employment or quantified local versus non-local labour.

Without scenario testing, the assessment presents a favourable central case while concealing the consequences of reasonable worst-case overlap. That is not a robust basis for an EIA conclusion or for assigning substantial weight to claimed employment and skills benefits.

14.8 Temporary accommodation assessment is not robust

BEPS does not contend that the evidence establishes that the local housing market is incapable of accommodating the construction workforce. The present problem is that the Applicant has not demonstrated where the non-local component of that workforce is expected to stay, how large that component is likely to be, or whether seasonal accommodation availability has been tested against peak workforce demand.

14.8.1 The 120-worker assumption is inadequately evidenced

The Applicant estimates that approximately 120 workers may require temporary accommodation during construction. Suffolk County Council records that estimate but seeks a clear plan explaining where those workers would stay and how peak demand would be managed.

The figure is not sufficiently transparent. Chapter 14 does not clearly show how 120 was derived from a peak workforce of about 720, what proportion would be home-based, how many would rotate through the Scheme, how long they would remain, or how accommodation demand would vary across the construction programme.

The Applicant should provide:

- the evidential basis for the 120-worker figure;
- average and peak accommodation demand;
- seasonal variation;
- worker rotation assumptions;
- expected length of stay;
- accommodation type;
- geographic distribution;
- interaction with other projects drawing on the same stock.

Without that information, the accommodation assessment is no more than an unsupported central estimate.

14.8.2 Headline room availability is misleading

Chapter 14 identifies 596 hotel and similar rooms in South Norfolk, with an estimated 129 rooms unoccupied on average over a 12-month period, together with approximately 557 active Airbnb listings. Those figures create a superficial appearance of spare capacity, but they do not demonstrate that the capacity is available to the Scheme when needed.

District-wide room numbers do not in themselves establish practical availability. The relevant questions include seasonal occupancy, geographic distribution, length-of-stay restrictions, suitability for long-stay contractors, competition with tourism demand, commuting distance to dispersed compounds and the extent to which private rental accommodation would also be used. The assessment does not establish whether those rooms are:

- available during peak tourism periods;
- affordable for prolonged workforce use;
- within a reasonable journey of the works;
- suitable for long stays;
- already relied upon by other projects;
- genuinely interchangeable with visitor accommodation.

An annual average occupancy figure is especially weak in a seasonal market. Capacity available in winter cannot simply be assumed available during summer construction peaks. Nor can every Airbnb listing be treated as stable workforce accommodation: listings fluctuate, may be unavailable for long stays and may already serve tourism demand.

Equally, local residents who oppose the scheme may not wish to rent their accommodation to its workforce. There is no obligation for them to do so. And it is quite likely that they will decide not to.

The headline stock figures therefore overstate practical capacity and understate the risk of displacement.

14.8.3 Private rental effects are omitted or understated

Mid Suffolk District Council identifies a broader risk that temporary workers may compete for private rented homes, reduce access for local households and worsen affordability. It also raises concerns about social integration and cumulative pressure from other NSIPs.

Chapter 14 does not adequately assess:

- rental displacement;
- rent inflation;
- landlords switching from ordinary residential tenancies to short-term workforce use;
- effects on lower-income households;
- reduced availability for local residents;
- additional pressure on local services.

This omission is material. Workers who cannot access hotels or short-term lets do not disappear; they may enter the private rented sector. The Applicant should therefore assess housing-market effects directly rather than treating accommodation as a tourism-room arithmetic exercise.

The accommodation assumption is inseparable from worker transport. A workforce housed principally in Norwich, Diss or other larger settlements would generate a different route pattern from workers staying close to the Scheme. Chapter 14 should therefore identify accommodation assumptions sufficiently clearly for Chapter 11's worker-traffic distribution to be tested against them.

14.9 Tourism assessment is too narrow

Current national policy expressly recognises rural leisure and tourism as part of the rural economy. NPPF Policy E4 supports facilities for rural leisure and tourism and the retention and expansion of accessible local shops and services.

The relevant issue at East Pye is therefore not simply the total number of tourists visiting South Norfolk. It is whether businesses whose product depends upon rural character, tranquillity, landscape quality, recreation or visitor accommodation are affected disproportionately by the construction and operation of the Scheme.

14.9.1 Counting attractions is not a tourism impact assessment

Chapter 14 lists nearby attractions, campsites, museums, the gliding club, Seething Observatory, Red House Farm Bed and Breakfast and other tourism assets. It also presents tourism employment and visitor expenditure data.

That is baseline description, not a full tourism impact assessment. The Applicant does not adequately assess:

- visitor perception;
- loss of tranquillity;
- change in rural character;
- repeat bookings;
- outdoor recreation;
- walking and cycling;
- dark-skies value;
- cumulative industrialisation;
- construction traffic, road closures and disruption.

Tourism in rural South Norfolk depends not only on formal attractions but on the experience of place. A visitor may choose accommodation because of quiet, views, walking routes and landscape character. Those qualities can be degraded even where no attraction closes.

The Applicant has not provided sufficiently localised evidence demonstrating why tourism businesses close to the Scheme, construction routes or materially altered landscapes would experience no significant economic effect. The Applicant's tourism conclusions are therefore too narrow and too dependent on whether a named attraction remains physically accessible.

14.9.2 Small businesses may be highly sensitive

The local tourism sector includes B&Bs, holiday lets, campsites, cafés, museums and recreation-based businesses whose viability may depend on landscape quality, quiet and ease of access. Chapter 14 classifies tourism as a medium-sensitivity receptor at sector level.

That aggregate classification may conceal severe effects on individual businesses. A small B&B or campsite may be highly vulnerable to reduced bookings, construction disturbance or loss of visitor appeal, even where the wider district tourism economy absorbs the change.

A small local tourism sector may be numerically modest but economically fragile. Low aggregate employment does not mean low sensitivity for individual businesses.

The Applicant should therefore assess individual tourism businesses where exposure is foreseeable, rather than relying only on district-wide percentages.

14.9.3 Tourism accommodation may be displaced by workers

Suffolk County Council and Mid Suffolk District Council both identify potential conflict between temporary workforce accommodation and visitor accommodation.

If rooms and holiday lets are occupied by construction workers, tourism capacity may fall precisely when visitors would otherwise use it. That may reduce visitor spending elsewhere in the local economy and affect businesses that depend on accommodation-led demand.

The Applicant should provide a Tourism Accommodation Protection and Monitoring Plan covering seasonal capacity, worker demand, cumulative project demand, occupancy monitoring and corrective action where visitor capacity is materially displaced.

14.10 Local businesses are not adequately assessed

Policy E4 now expressly recognises agricultural, land-based, rural leisure and tourism businesses as components of the rural economy which planning policy seeks to support. This increases the importance of identifying businesses whose economic activity is tied directly to the landscape, road network or agricultural function affected by East Pye rather than treating the local economy principally through district-wide employment statistics.

14.10.1 Construction disruption

South Norfolk Council identifies cumulative economic consequences for local businesses and tourism from overlapping construction programmes and calls for coordinated traffic and phasing measures.

Chapter 14 does not adequately assess the business effects of:

- road closures;
- abnormal indivisible load movements;
- access restrictions;
- delivery delays;
- reduced passing trade;
- noise and dust;
- loss of visitor confidence.

These are not merely transport effects. They can directly affect turnover, staffing, customer access and business continuity. The Applicant should identify businesses exposed to construction routes and works and assess the economic consequences, not simply the traffic change.

14.10.2 Home-based businesses

The affected area contains businesses operating from homes and rural premises, including tourism, equestrian, agricultural, professional and educational uses. These may be especially sensitive because the business and residential receptor are the same place.

Chapter 14 does not provide a business receptor schedule or identify which home-based enterprises may be affected by noise, traffic, visual change, access disruption or loss of amenity.

The Applicant should identify all foreseeable business receptors and undertake business-specific assessment where impacts are plausible. Without that work, the claim of negligible or minor local business effects is unsupported.

Several businesses have asked to be included as category 3 persons due to specific noise and disruption effects stated in the application, yet have not been included.

14.10.3 No compensation or business support framework

Norfolk County Council calls for compensation for affected households, communities and businesses and for a Community Benefit Fund.

Those are different matters. A voluntary community benefit fund cannot substitute for compensation where a business suffers demonstrable loss because of construction or operation.

The Applicant should provide a business-support and compensation framework covering access disruption, verified loss, emergency mitigation and claims handling. Any community fund must be additional, not treated as a cure for unmitigated harm.

14.11 Agricultural and rural economic effects are fragmented

The August 2026 NPPF also expressly supports development which maintains and enhances farm viability and sustainability and supports domestic food production.

Chapter 14 should therefore be read together with Chapter 15. The socio-economic effect of agricultural land conversion is not exhausted by the number of directly displaced agricultural jobs. It may include changes to individual farm-business structure, contracting, agricultural supply chains, diversification and the productive use of land over the 60-year operational period.

14.11.1 Agricultural land is an economic asset

The Scheme occupies approximately 1,212 hectares, with Norfolk County Council recording that 68.4% of the land is best and most versatile agricultural land. NCC links that loss to food production, farming communities and cumulative effects on the wider agricultural economy.

Agricultural land is not merely an environmental receptor. It supports farm businesses, tenants, contractors, machinery suppliers, hauliers, agronomists and local service activity. Removing land from production for up to 60 years has economic consequences even where the land may theoretically return to agriculture later.

14.11.2 Chapter 14 does not integrate agricultural loss

Chapter 14 does not adequately assess:

- farm business restructuring;
- contractor impacts;
- tenancy consequences;
- local agricultural employment;
- machinery and service businesses;
- supply-chain effects;
- long-term loss of productive capacity.

Those effects are fragmented into the soils and agricultural land chapter and are not brought back into the socio-economic balance.

The omission produces an obvious asymmetry: the Applicant counts construction jobs created by the Scheme but does not properly count the economic activity displaced from the land. That is not a complete socio-economic assessment.

14.12 Community wellbeing and distributional effects

14.12.1 Benefits and harms fall on different groups

The claimed employment and supply-chain benefits may accrue largely to mobile workers, specialist contractors and national firms. The harms are more concentrated: residents experience construction disruption; farmers lose productive use; tenants face housing pressure; tourism businesses face reduced visitor appeal; and local firms bear access and traffic impacts.

Chapter 14 does not expressly assess that distribution. It treats benefits and harms as aggregate effects, obscuring who gains and who loses.

A proper socio-economic assessment should identify the affected groups, the scale and duration of effects, and whether the benefits compensate the same communities that bear the burdens. In this case, they may not.

BEPS does not rely upon generalised assertions that community opposition itself constitutes a socio-economic harm. The relevant concern is distributional: many claimed benefits, including renewable generation and some employment expenditure, arise at regional or national level, while construction disturbance, landscape change, route disruption and effects on individual rural businesses are concentrated within a relatively small number of communities.

That distribution does not determine the planning balance by itself, but it should be described accurately rather than presenting gross regional benefits and highly localised adverse effects as though they accrue to the same population.

14.12.2 Vulnerable communities

Norfolk County Council identifies concern about long-term mental-health effects, attachment to place, fears about safety, housing and business values, and impacts on elderly and vulnerable populations.

Those are not only health effects. They become socio-economic where they affect household stability, business confidence, community cohesion, property decisions and willingness to remain in the area.

The Applicant should therefore integrate these effects into Chapter 14 rather than leaving them isolated in health or equality documents.

14.12.3 Community benefit is absent or undefined

NCC seeks a Community Benefit Fund. The application does not presently define one with sufficient clarity.

Any fund should be:

- additional to mitigation and compensation;
- transparent;
- independently governed;
- targeted at affected communities;

- subject to published criteria and reporting.

It must not be used to offset planning harm that should first be avoided or mitigated.

14.13 The assessment relies too heavily on professional judgment

Chapter 14 acknowledges that there is no solar-specific socio-economic methodology and that leakage and displacement are difficult to quantify. It therefore relies materially on professional judgment.

Professional judgment is an ordinary and legitimate component of socio-economic EIA. The difficulty arises where the judgment cannot be traced to sufficiently localised baseline evidence or where the assumptions determining magnitude—such as workforce origin, accommodation availability or tourism sensitivity—remain uncertain.

Where the methodology is judgment-led and the benefits are uncertain, the Applicant must provide more evidence, not less. Uncertainty should not be converted automatically into beneficial significance.

The assessment should disclose:

- all material assumptions;
- the basis for leakage and displacement rates;
- sensitivity testing;
- confidence ranges;
- alternative scenarios;
- independent review;
- the consequences of uncertainty for significance.

Without that, the conclusions are not reproducible and should be given limited weight.

14.14 Significance judgments are applicant-friendly

14.14.1 Receptor sensitivity may be understated

Chapter 14 classifies temporary accommodation as low sensitivity and tourism as medium sensitivity. Those judgments may understate real vulnerability.

Seasonal accommodation constraints may justify a higher sensitivity at peak periods. Individual tourism businesses may be far more vulnerable than district-wide data suggests. Housing affordability and private rental access should be treated as a separate receptor rather than folded into accommodation supply. Farming and rural business should also be assessed independently.

The present classifications smooth over local fragility by relying on broad sector averages.

14.14.2 Beneficial effects are given more confidence than adverse effects

The assessment gives substantial positive weight to uncertain employment, skills and training benefits, while treating tourism, accommodation and business effects as minor or negligible despite acknowledged uncertainty.

That asymmetry is not defensible. The Applicant applies optimism to benefits and caution to harms. Where both depend on uncertain assumptions, both should be tested with equal rigour.

The result is an applicant-friendly significance framework that inflates the positive case and suppresses the adverse one. Until the imbalance is corrected, the Chapter 14 conclusions should carry limited weight.

14.15 Cumulative accommodation, tourism and community effects

The cumulative socio-economic assessment is materially incomplete. East Pye will not be constructed in isolation. Mid Suffolk District Council identifies the need for active cross-project coordination to manage overlapping labour demand, temporary accommodation pressure and wider community effects. It warns that concurrent NSIPs may place pressure on tourism accommodation, private rented housing, affordability and the social integration of temporary workforces.

South Norfolk Council likewise identifies cumulative economic consequences for local businesses and tourism arising from overlapping construction programmes, prolonged disruption, abnormal-load movements and road works. It calls for construction phasing and traffic management to be coordinated across projects to minimise harm to residents and businesses.

Suffolk County Council identifies the overlap with Sizewell C, Norwich to Tilbury, Sea Link and other major energy projects as a material omission from the Applicant’s assessment. It criticises the failure to assess cumulative competition for labour, training capacity, accommodation and transport, and notes that the same finite regional workforce and visitor accommodation stock will be drawn upon by several projects at once.

The Applicant’s present approach is too narrow because it treats cumulative employment largely as an additional benefit rather than testing the adverse consequences of simultaneous demand. A proper assessment must examine:

- worker accommodation demand;
- private rented housing pressure;
- displacement of tourists from hotels, B&Bs and short-term lets;
- additional pressure on local services;
- cumulative road disruption and access constraints;
- effects on business confidence and visitor demand;
- competition for labour and training places;
- community integration and cohesion.

These effects are interconnected. Imported workers may increase accommodation and rental demand; reduced tourism capacity may affect local

spending; road disruption may damage business access; and cumulative construction may undermine community confidence and wellbeing. The Applicant has not assessed that combined pathway with sufficient realism.

Cumulative assessment should therefore consider whether overlapping infrastructure projects compete for the same temporary accommodation, specialist labour and road capacity, and whether repeated or simultaneous construction affects rural tourism and other landscape-dependent businesses. The assessment should avoid counting cumulative employment demand as wholly beneficial while separately assuming that accommodation, tourism and local services have sufficient spare capacity.

The cumulative assessment must therefore be rebuilt around actual project overlap, workforce demand, accommodation capacity and local vulnerability. Without that work, the conclusion that cumulative socio-economic effects are beneficial or not significant is not reliable.

14.16 Monitoring and adaptive management are absent or weak

The Applicant relies heavily on future strategies and management plans, but does not provide a sufficiently robust monitoring and corrective-action framework. The Outline Employment, Skills and Supply Chain Strategy does not establish binding performance indicators, transparent reporting requirements or clear consequences where claimed benefits are not delivered. Suffolk County Council expressly identifies the absence of agreed governance, monitoring and performance measures as a major weakness.

A meaningful monitoring framework should record, at minimum:

- local employment achieved;
- workforce origin;
- apprentice and trainee numbers;
- completion and employment outcomes;
- local and regional supply-chain expenditure;
- SME participation;
- workforce accommodation use;
- pressure on the private rented sector;
- tourism occupancy and displacement;
- complaints and losses reported by local businesses;
- cumulative labour, housing and training pressures.

Where the Applicant relies upon employment, accommodation or worker-spending assumptions that cannot be fixed precisely before construction, proportionate monitoring should be used to verify them. Relevant indicators could include workforce origin, local employment, apprenticeship delivery, local procurement, worker accommodation location and modes of travel.

Monitoring is particularly important where the Applicant seeks positive weight for local benefits. It should demonstrate whether those benefits are actually being delivered rather than merely record adverse effects after they occur.

Monitoring must not be confined to recording activity. It must include trigger levels and remedial action. If local employment falls below target, training delivery fails, tourism capacity is materially displaced, rental pressure increases or business disruption exceeds forecast levels, the Applicant should be required to implement corrective measures.

Those measures should include revised recruitment and training programmes, alternative accommodation arrangements, additional business-support measures, coordinated action with other NSIPs and, where appropriate, compensation for demonstrable loss.

The monitoring regime should be independently reviewable, reported publicly and overseen by the relevant local authorities and regional skills bodies. Without that structure, the claimed benefits remain aspirational and the adverse effects may emerge without any enforceable response.

14.17 Overall conclusion

Chapter 14 was included because the Planning Inspectorate expressly rejected the Applicant’s original proposal to scope socio-economic effects out. PINS considered that the available baseline was insufficient to exclude significant socio-economic effects and required a standalone assessment. Pins scoping response

The final chapter provides considerably more information than the Scoping Report, but important uncertainties remain in the matters which determine the scale and distribution of both the claimed benefits and potential adverse effects.

The construction employment case is presented principally in gross terms and does not establish what proportion of jobs, expenditure or skills benefit will be retained locally. Workforce origin remains insufficiently defined, which in turn affects the accommodation and transport assessments. The employment and skills strategy remains substantially outline and therefore provides limited certainty about the apprenticeships, local procurement and training benefits upon which positive weight may be placed.

The temporary-accommodation assessment relies heavily upon aggregate availability and does not demonstrate how peak workforce demand would interact with seasonal tourism, private rental accommodation or commuting from larger settlements. Tourism and local-business effects are assessed at a scale which risks obscuring individual rural enterprises whose economic value depends directly upon landscape character, tranquillity, access or agricultural activity.

The August 2026 NPPF reinforces the relevance of those receptors by expressly supporting rural business growth, agricultural and land-based businesses, rural leisure and tourism, farm viability and domestic food production.

BEPS does not submit that the evidence demonstrates a significant adverse socio-economic effect in every one of these categories. The narrower conclusion is that the evidence does not justify treating the positive employment and skills effects as certain while treating potentially adverse local effects as negligible on the basis of less-developed assumptions.

The weight afforded to the Scheme’s socio-economic benefits should therefore reflect the extent to which they are quantified, additional, local and secured. Correspondingly, the Applicant should provide sufficient localised evidence to demonstrate that construction labour demand, accommodation use, tourism effects and impacts upon rural businesses have been adequately characterised before the ExA reaches its conclusions.

Chapter 14 therefore materially overstates uncertain socio-economic benefits and understates concentrated local harms. Its beneficial conclusions should carry limited weight unless the Applicant provides a detailed, demand-led and cumulative assessment and secures measurable outcomes through the DCO.

14.18 Remedies sought

BEPS requests that the Applicant:

- distinguish gross construction employment from additional and locally retained employment;
- identify the assumed geographic origin and occupational composition of the construction workforce;
- explain how those workforce assumptions have been reconciled with Chapter 11 worker-traffic forecasts;
- provide measurable commitments, monitoring and reporting for any employment, apprenticeship, skills or local-supply-chain benefits relied upon in the planning balance;
- provide a peak-period accommodation assessment reflecting the likely non-local workforce, seasonal occupancy and realistic commuting distances;
- assess the interaction between construction-worker accommodation demand and rural tourism accommodation;
- identify rural businesses particularly dependent upon landscape character, tranquillity, visitor access, agriculture or affected construction routes and demonstrate how material effects upon them have been assessed;
- reconcile the socio-economic assessment of agriculture and farm businesses with Chapter 15;
- assess cumulative competition for labour, accommodation and tourism capacity from relevant overlapping infrastructure projects; and
- secure proportionate monitoring of workforce origin, local employment, skills delivery, accommodation and local procurement where those matters are relied upon as Scheme benefits.

If those matters remain unresolved, the ExA should apply correspondingly reduced weight to the Applicant’s claimed local employment, skills and supply-chain benefits and should not assume that potentially adverse effects on accommodation, tourism and rural businesses are negligible.

That work should include realistic low, medium and high scenarios and identify the consequences of overlapping construction with other NSIPs.

Secured delivery

A detailed Employment, Skills and Supply Chain Plan should be secured through the DCO. It should contain:

- binding local employment targets;
- quantified apprenticeship and training commitments;
- local and regional supply-chain expenditure targets;
- SME participation measures;
- named local authority and regional skills consultees;
- public monitoring and reporting;
- corrective action where targets are missed.

Only outcomes secured in this way should carry material weight in the planning balance.

Accommodation and business mitigation

The DCO should also require:

- a Workforce Accommodation Management Plan;
- protection of tourism accommodation capacity;
- monitoring of private-rental effects;
- business access and continuity measures;
- a transparent compensation mechanism for demonstrable business loss;
- coordinated workforce and accommodation planning with other NSIPs.

The accommodation plan should address seasonal demand, worker rotation, geographic distribution, cumulative project pressure and the risk of displacement from both tourism and residential housing.

Decision consequence

The Examining Authority should give limited weight to the claimed socio-economic benefits unless they are evidenced, additional, locally deliverable and secured. Consent should not be granted on the basis of headline job figures while foreseeable adverse effects on housing, tourism, local businesses, agriculture and community wellbeing remain unresolved.

Chapter 15: Soils and Agriculture

Introduction

Introduction

Chapter 15 does not demonstrate that East Pye Solar can occupy, traffic, trench, industrialise and later restore this agricultural landscape without lasting harm. Its conclusions depend on an incomplete baseline, a methodology which automatically treats any assertedly reversible effect as low magnitude, and repeated assumptions that future management will prevent damage which has not yet been measured or designed out.

The Scheme is concentrated on high-quality land. The surveyed Sites 1–10 and BESS area contain 397.4 ha of Grade 2 and 431.7 ha of Grade 3a land: 829.1 ha of surveyed BMV land. Works No. 1 alone contains 470 ha of BMV land. Yet 158.9 ha of the Cable Route Corridor (‘CRC’) remains unsurveyed, together with other smaller areas. The Applicant nevertheless presents a scheme-wide BMV percentage and assumes that all CRC land will be restored to comparable grade. That is not an assessment; it is the conclusion assumed in advance. (APP/6.1.15, Tables 15.6–15.7; §§15.4.1–15.5.7)

Natural England identifies soils and BMV land as an amber issue. It requires full ALC coverage of the CRC, clarification and avoidance of peat, reconsideration of permanent infrastructure on BMV land and a more detailed Soil Resource and Management Plan. It expressly warns that cable installation, temporary tracks and compounds can cause permanent land-quality change. Norfolk County Council objects to the scale and cumulative loss of high-quality agricultural land and records a worst-case permanent BMV loss of 28.9 ha, rising to 37.9 ha when BMV mitigation planting is included. South Norfolk Council identifies permanent and temporary loss of productive farmland as a substantial harm. These are not matters safely deferred to post-consent management.

The Chapter should therefore be given limited weight. Its significant adverse worst-case finding is real; its benign ‘likely’ case is not demonstrated.

15.1 Impact of solar infrastructure on soil quality

Recent peer-reviewed UK field evidence challenges the assumption that ground-mounted solar on agricultural land is soil-neutral or readily reversible. A multi-site study of operational solar farms in England and Wales (Carvalho et al., 2025, *Environmental Research Letters*) found statistically significant and consistent changes in soil condition beneath panels within the first decade of operation. Mean soil bulk density (a direct indicator of compaction) was 14–15% higher beneath panels than in adjacent gap or pasture areas, indicating structural compression associated with construction trafficking, access and ongoing disturbance. Soil organic carbon concentrations were approximately 9% lower beneath panels, and particulate organic matter—critical to aggregation, pore formation and resilience—was reduced by around 29%. The study links these changes to reduced plant biomass, altered soil moisture dynamics, and impaired structural development under panel cover.

These findings are materially more serious on **heavy clay BMV soils** such as those prevalent across the South Norfolk Claylands. In clay soils, increased bulk density and loss of particulate organic fractions constrain macroporosity, impair drainage, restrict root penetration, and reduce the soil's capacity to recover after trafficking. Importantly, the studied sites were relatively young (0–10 years). The measured degradation therefore occurs **before** any mid-life repowering cycle and before decommissioning, meaning the Scheme's disturbance profile is likely to be cumulative rather than a single, 'one-off' disruption. In clay landscapes with high groundwater levels and hydrological connectivity to chalk aquifers and streams, compaction and loss of soil structural fractions also increase waterlogging and surface run-off risk, creating linked agricultural and water-environment consequences.

15.1.1 Avoiding the 'temporary use / condition will fix it' trap

Recent appeal decisions show a recurring approach in which BMV land is treated as not 'lost' if (i) the land remains in some agricultural use (typically grazing), (ii) 'the soil remains on the land,' and (iii) the development can be removed and returned to arable at end of life, secured by condition. East Pye must be distinguished from that template reasoning on the facts.

First, **heavy clay + high groundwater** means the principal harm is not topsoil removal but **whole-profile structural impairment** (smearing, pore collapse, reduced infiltration and drain failure) which may persist for decades and is not reliably reversed by routine subsoiling. Secondly, the Scheme lifecycle is not a single disturbance event followed by restoration: modern solar arrays commonly entail a major repowering phase around the 30-year point, re-mobilising heavy plant and re-disturbing soils and drainage, followed later by decommissioning. Thirdly, the Scheme includes **industrial nodes and linear infrastructure** (400kV substations, bunding, hardstanding, cable corridors, BESS platforms and haul roads) that require engineered formation levels, imported sub-bases, deep service corridors and long-term access constraints. In such circumstances, it is not safe to assume that 'soil remains' in its functional state or that return to BMV arable capability is 'reasonably and easily' achievable.

Accordingly, whether BMV capability can be reinstated is not a matter for assumption or deferral. It requires (i) parcel-specific baseline soil and ALC data, (ii) quantified performance benchmarks for restoration (bulk density, infiltration/drainage performance, organic matter recovery and yield capability), (iii) verification by post-restoration monitoring, and (iv) secured financial provision sufficient to deliver full-depth remediation where required. A condition requiring a future plan cannot substitute for missing baseline data, nor can it guarantee outcomes without measurable benchmarks and enforceable funding.

15.1.2 Agricultural sterilisation, soil structure loss and hydrological consequences

For the purposes of this Examination, **agricultural sterilisation** does not mean simply that panels occupy a proportion of a field. It means that land is rendered **functionally incapable of returning to viable, productive BMV agriculture within a reasonable timeframe** because the Scheme causes (alone or in combination):

- persistent whole-profile compaction and smearing of heavy clay subsoils;
- disruption or long-term impairment of underdrainage and soil moisture regimes;
- physical fragmentation and operational lock-in (loss of workable headlands, constrained turning, restrictions on deep cultivation and drainage repair, permanent access corridors and fenced exclusion zones); and
- long-term infrastructure and contamination constraints associated with substations, bunding, hardstanding, cable corridors and BESS platforms.

At East Pye, sterilisation risk arises not only from panel footprints but from the cumulative footprint of: driven piles across heavy clay BMV soils; continuous cable trenching and backfilled service corridors; construction compounds and internal haul roads; permanent access tracks and fencing; and industrialised infrastructure at Sites 1 and 5 (400kV substations, bunding, hardstanding, safety buffers and BESS). These elements affect the **functional whole** of field units: agricultural machinery access and drainage maintenance are constrained; deep remediation becomes impracticable; and the ability to reinstate arable rotations is progressively lost.

Sterilisation is therefore a **whole-system land capability** issue, not a narrow ‘area under panels’ calculation. These findings are particularly material for heavy clay Best and Most Versatile (BMV) soils, where increased bulk density and reduced organic fractions significantly constrain drainage, root penetration and recovery potential. Importantly, the sites examined were relatively young (0–10 years), meaning the documented compaction and carbon reductions precede any mid-life repowering or decommissioning disturbance cycles. On clay soils with high groundwater levels and hydrological connectivity to sensitive chalk aquifers and streams, the demonstrated increase in compaction and reduction in soil structural fractions represent not merely short-term disturbance but a credible pathway toward long-term degradation and reduced agricultural functionality.

The empirical findings of elevated bulk density and reduced soil organic fractions beneath operational solar arrays are directly relevant to the concept of agricultural sterilisation. Sterilisation, in planning terms, arises where land is rendered functionally incapable of returning to viable BMV agricultural use within

a reasonable timeframe. The documented 14–15% increase in bulk density and substantial reduction in particulate organic matter indicate measurable structural degradation of the soil profile within the first decade of operation. On heavy clay BMV soils, increased bulk density constrains macroporosity, impairs drainage and restricts root penetration; reduced particulate organic matter diminishes aggregate stability and resilience to trafficking. These are not superficial effects limited to vegetation cover but changes to the physical and biological architecture of the soil. Where such degradation occurs during initial construction and operation, and is then compounded by mid-life repowering and eventual decommissioning disturbance, the cumulative outcome is persistent structural impairment. In hydrologically sensitive clay-over-chalk systems with high groundwater tables, compaction further alters runoff patterns and infiltration dynamics, increasing the likelihood of waterlogging and sediment mobilisation. In combination, these processes transform productive BMV land into land of diminished agronomic function and heightened environmental risk. The research therefore provides empirical support for the contention that large-scale ground-mounted solar on heavy clay BMV soils carries a credible risk of long-term agricultural sterilisation rather than temporary displacement.

15.1.3 Specific Risk to Best and Most Versatile (BMV) Heavy Clay Soils

The South Norfolk Claylands are characterised by slowly permeable, seasonally waterlogged heavy clay soils, much of which is classified as Best and Most Versatile (Grades 2 and 3a). These soils are:

- Structurally sensitive to compaction.
- Highly vulnerable to smearing when trafficked in wet conditions.
- Dependent on intact subsoil structure for drainage and root penetration.
- Slow to recover once compacted.

The ADAS / Welsh Government (2023) study and ISEP (2025) guidance confirm that:

- Deep compaction in clay soils can persist for decades.
- Soil structure collapse cannot reliably be reversed without full profile restoration.
- Recovery of pre-disturbance yield potential is uncertain.

Construction of a 2,000+ hectare NSIP across heavy clay land inevitably involves:

- Repeated heavy plant trafficking.
- Excavation and backfilling of trenches.
- Subsoil mixing.
- Drainage disruption.

On clay soils with a high natural water table, trafficking under less-than-ideal conditions causes irreversible pore collapse and lateral smearing. Once subsoil structure is lost, water infiltration decreases, surface ponding increases, and roots cannot penetrate effectively. Yield potential declines and drainage systems fail.

A 60-year consent period therefore equates to the effective removal of BMV land from productive use for a generation and potentially beyond.

Under **NPPF (August 2026)** and **NPS EN-1 (2023)**, such long-term loss of BMV land requires clear and compelling justification. Temporary terminology does not negate functional permanence.

15.2 Policy and the correct decision-making question

The applicable national policy continues to require specific consideration of agricultural land quality rather than treating it as an undifferentiated land-use constraint. EN-1 requires the Secretary of State to ensure that BMV land is not used without justification and, where agricultural development is necessary, that poorer-quality land is preferred. EN-3 similarly states that poorer-quality agricultural land should be preferred to higher-quality land, avoiding BMV land where possible, and requires the Applicant to explain its site choice. The August 2026 NPPF now expresses the same principle through national decision-making policy N2(1)(b): development proposals should take account of the quality of agricultural land, including whether it is BMV and its grade, and, where significant development of agricultural land is necessary, use poorer-quality land where possible. The new NPPF must also be read fairly with policy W3, which gives substantial weight to the energy-security, economic-development and net-zero benefits of renewable energy infrastructure. That additional policy weight does not remove the separate requirement to identify and minimise agricultural-land harm or to explain why higher-quality land is required in the location proposed. Chapter 15 acknowledges agricultural land quality but does not demonstrate that it has operated as an effective avoidance criterion once the broad land portfolio had been selected.

The correct question is not whether panels can stand above grass or whether soil remains physically present. It is whether the Applicant has shown that the Scheme is located on the least damaging land reasonably available; that the full soil resource is known before consent; that BMV capability, drainage and farm function will be maintained through the whole lifecycle; and that restoration to an enforceable agricultural end-state is technically and financially secured. The application fails each limb.

15.3 Incomplete and inconsistent ALC baseline

15.3.1 The detailed survey reveals substantially more BMV land than the strategic mapping

The provisional 1:250,000 mapping showed mainly undifferentiated Grade 3 land. The detailed survey instead found that 78.7% of Sites 1–10 and the BESS area is Grade 2 or 3a. Chapter 15 accepts that the lighter and more calcareous soils produced a higher ALC outcome than expected. That discovery should have

triggered a renewed alternatives and layout review. Instead, the Applicant states that panel installation does not affect land quality and therefore gives ALC limited influence over siting. (APP/6.1.15, §§15.6.4–15.7.3)

That approach reverses the mitigation hierarchy. Once field survey showed extensive Grade 2 and 3a land, the first response should have been avoidance, reduction and relocation, not a post hoc assertion that long-term solar occupation is harmless.

ISH1 has since clarified how BMV land entered the selected portfolio. The Applicant explained that, during Stages 1–3 of site selection around Norwich Main, it had initially sought to avoid BMV land. By the end of Stage 3 it concluded that insufficient non-BMV land remained to deliver a scheme of the scale proposed, and at Stage 4 it therefore reintroduced land which could contain BMV. Following the change to Great Moulton, Stage 5 again sought potentially suitable non-BMV alternatives before Stage 6 again allowed BMV land to be considered. The Applicant's evidence is therefore that BMV avoidance was relaxed because avoiding BMV would not provide sufficient land for a scheme of the chosen scale. That does not of itself establish a policy breach, because EN-3 recognises that large solar schemes may use agricultural land. It does, however, sharpen the Examination question: whether the proposed scale and configuration justified the resulting use of this quantity and quality of BMV land, and whether reasonable opportunities to reduce that use were taken once the detailed ALC evidence became available.

15.3.2 The figures are internally inconsistent

Table 15.6 gives 829.1 ha of surveyed BMV land. Paragraph 15.8.128 nevertheless values the economic benefit of ‘868 ha of BMV within the Scheme’. Chapter 15 also describes 68.4% of the Order Limits as BMV, even though the CRC has not been surveyed. The Applicant must reconcile 829.1 ha, 868 ha, 68.4% and the earlier approximately 80% figure, and identify which denominator and assumptions are used in each case.

The defect is material because percentages are then used to frame the effect as regionally negligible. A percentage derived partly by assuming the grade of unsurveyed land is not a measured scheme-wide baseline.

15.3.3 The CRC omission is contrary to the Scoping Opinion and Natural England’s advice

The Scoping Opinion stated that the ALC survey should cover the whole site, including the CRC, unless substantial justification was provided. Natural England repeated that advice before submission. The Applicant chose not to comply and now proposes survey only after consent, once the cable alignment has been refined. (APP/6.1.15, Table 15.1; Table 15.2)

Natural England’s Relevant Representation rejects the sufficiency of that approach. It states that survey across the entire corridor is needed to inform the EIA, route refinement, soil handling and restoration, and warns of long-term or permanent BMV loss if cable works, access tracks and compounds are undertaken inappropriately. The missing survey is therefore not a minor limitation. It prevents informed avoidance and reliable assessment.

15.4 Defective assessment methodology

15.4.1 Reversibility is assumed, then used to suppress significance

Chapter 15 defines every temporary and reversible loss as low magnitude, regardless of area or duration. It then assumes that compounds, tracks, cabling, trafficking, project substations, BESS works and decommissioning are reversible because they will be controlled by later plans. That circularity predetermines a minor result. (APP/6.1.15, §§15.5.17–15.5.29)

A 60-year removal of BMV land, with repeated construction access and uncertain restoration, is not rendered low magnitude merely by being labelled temporary. Duration, frequency, depth of disturbance and probability of successful restoration must affect magnitude. Chapter 15 says those factors matter, but its fixed rule prevents them from doing so.

15.4.2 Soil sensitivity is understated

The Applicant concludes that no soil is highly sensitive because Field Capacity Days are below 150. Yet it also accepts that the soils are predominantly slowly permeable, seasonally waterlogged and clay-rich, and are prone to structural damage when wet. The oSRMP describes moisture control as critical. Formal categorisation cannot override the site-specific susceptibility which the Applicant itself records.

15.4.3 Farm businesses are downgraded by definition

Every farm business is classified as low sensitivity because none is dairy and arable businesses are said to be adaptable. Exposure to weather, prices and policy does not make a farm insensitive to the 60-year loss of 18%, 25%, 26%, 29% or 35% of its land. The methodology effectively ensures that even a medium impact becomes minor.

The assumption of resilience is particularly weak where holdings rely on field drainage, contract farming, livestock relationships, stewardship prescriptions and coherent blocks of land. No business viability analysis supports the blanket classification.

15.4.4 Unassessed matters are removed by assumption

Chapter 15 assumes that all land adjoining the CRC will remain accessible and therefore provides no assessment of short-term disruption. It assumes that habitat areas will continue to be farmed without soil disturbance. It limits the study area to the Order Limits on the basis that no off-site soil or land-use effect will occur. Those are disputed outcomes, not neutral baseline assumptions. Drainage disruption, severance, altered access and contractor effects may extend beyond the red line.

15.5 The Cable Route Corridor and haul-road system

The CRC is approximately 24 km long. It is generally around 50 m wide, narrows to about 13 m and widens in places to about 405 m. Open-cut works may require a 25 m working width, trenches up to 7 m wide and 2 m deep, joint bays,

trenchless launch and reception areas, three large compounds, spoil storage, laydown areas and temporary access. (APP/7.21)

Norfolk County Council's highway authority position makes the corridor still more consequential. It requires numerous sites to be served from appropriate roads by internal haul routes or CRC connections. The Applicant's unsurveyed corridor is therefore also a principal construction logistics route.

Chapter 15 dismisses the CRC as short-term and temporary and excludes it from the farm-business interviews. That is untenable. A long linear route crossing multiple holdings, drainage systems and soil types may cause compaction, smearing, mixing, severance and delayed reinstatement. Without the ALC and soil survey, the Applicant cannot show that the final route avoids Grade 2 land, peat, wet soils, sensitive drainage or stewardship areas.

The comparison with Cottam does not answer the defect. The question is not whether another DCO accepted a later survey in different circumstances. It is whether this EIA contains sufficient information to assess this Scheme, particularly where the highway authority expects extensive use of the corridor for haulage and Natural England expressly maintains its objection.

15.6 Soil vulnerability, compaction and empirical evidence

15.6.1 The Applicant's own evidence identifies the mechanism of harm

Beccles 1 soils are described as slowly permeable, seasonally waterlogged fine loamy over clayey soils; Burlingham 1 soils have slowly permeable subsoils and seasonal waterlogging. Chapter 15 accepts that wet trafficking can damage structure and that vehicle trafficking presents the greatest potential soil effect. It nevertheless asserts that compaction will be temporary, capable of correction with ordinary agricultural machinery and very unlikely to affect drainage or ALC grade. (APP/6.1.15, §§15.6.15–15.6.20; 15.8.26–15.8.31; 15.8.67–15.8.72)

Those conclusions are unsupported by quantified baseline bulk density, infiltration, drainage performance or compaction modelling. Photographs of shallow pits and generic examples from other solar farms do not demonstrate whole-profile recovery at East Pye.

15.6.2 UK field evidence contradicts the claim of no operational adverse effect

Carvalho et al. studied 32 operational solar farms in England and Wales. Beneath panels, soil compaction was approximately 14–15% higher, soil organic carbon approximately 9% lower than in gaps, and particulate organic matter approximately 29% lower than in gaps. Plant cover and biomass were also reduced. These changes occurred within the first decade of operation.

That evidence does not prove identical effects everywhere. It does prove that Chapter 15's categorical propositions—'there will be no compacting of soils', 'there are no adverse impacts' and grassland will necessarily produce a net soil benefit—are too absolute. The Applicant has not assessed the under-panel and inter-row microclimates, soil carbon, vegetation cover or operational compaction against site-specific baselines.

Soils, Compaction and Irreversibility on BMV Heavy Clay Land

Authoritative evidence from the ADAS / Welsh Government (March 2023) 'The impact of solar photovoltaic (PV) sites on agricultural soils and land' and the ISEP (2025) 'Solar PV on Agricultural Land: Essential Components of Environmental Assessments and Reports' establishes that ground-mounted solar on Best and Most Versatile (BMV) agricultural land—particularly heavy clay soils—presents a high and often underestimated risk of long-term structural compaction and loss of soil function. Both documents emphasise that soil is a living, structured system: productivity depends on intact pore networks, aggregation, biological activity and functioning underdrainage. Heavy clay soils, such as those prevalent across the South Norfolk Claylands, are especially vulnerable because trafficking in moist conditions causes subsoil smearing, pore collapse and lateral compaction that can persist for decades. ADAS identifies that deep compaction below 30–40cm is rarely fully reversible without complete soil profile reconstruction; ISEP confirms that claims of 'temporary use' or 'reversibility' must be evidenced by site-specific soil surveys, bulk density measurements, structural assessments and restoration trials. Absent such evidence, long-term yield decline and impaired drainage must be assumed to be likely outcomes.

At NSIP scale, compaction risk occurs not once but three times: (1) during initial construction (piling, trenching, heavy plant movement, crane pads, substation platforms, BESS bases, cable installation); (2) at mid-life repowering(anticipated at c.30 years), when panels, mounts and associated infrastructure are removed and replaced, re-mobilising heavy plant and re-disturbing soils; and (3) at decommissioning (c.60 years or earlier under commercial failure scenarios), involving removal of foundations, hardstanding, bunds and cable corridors. Each cycle introduces further trafficking pressure, particularly in clay soils prone to seasonal waterlogging. The cumulative effect is not neutral. Repeated trafficking over decades compounds subsoil density, reduces macroporosity, restricts root penetration, and increases surface ponding and runoff. ADAS evidence indicates that once clay structure collapses, drainage performance degrades and remediation by subsoiling is frequently ineffective. Thus, the three-phase disturbance profile fundamentally undermines any assertion that BMV land can be restored to pre-development agricultural condition.

Compaction risk extends beyond the solar arrays themselves. Construction and abnormal indivisible load (AIL) routes typically require temporary or semi-permanent haul roads across fields, including land outside the operational redline. On heavy clay BMV land, haul roads constructed for HGV and transformer deliveries generate intense axle loading, producing rutting and subsoil shear failure. Even if 'temporary' matting is used, ground pressure remains substantial. Where haul routes must be reused for mid-life repowering and ultimate decommissioning, the land is subjected to recurring high-load trafficking events over a 60-year period. Repeated use prevents full soil structural recovery between phases. The result is linear corridors of persistent compaction, altered drainage and yield suppression across otherwise unaffected fields. Such corridors fragment field systems, impair headland management, and may require permanent access retention, further entrenching sterilisation.

ISEP (2025) stresses that assessment of solar schemes on BMV land must consider not merely surface cover but **whole-profile soil function over the lifetime of the development**, including restoration feasibility and cumulative disturbance. Where evidence demonstrates high vulnerability to deep compaction, planning policy requires precaution. Under **NPS EN-1 (2023) §4.2** and the **NPPF (Dec 2024)**, decision-makers must afford significant weight to the protection of BMV agricultural land and ensure that land use is sustainable in the long term. In the absence of robust, parcel-specific soil surveys, quantified compaction modelling, and secured restoration bonds capable of funding full soil profile reconstruction, the risk profile for heavy clay BMV land subjected to three disturbance cycles and repeated haul-road trafficking is one of **probable long-term sterilisation rather than temporary displacement**.

15.7 Agricultural drainage, groundwater and connected receptors

Soil structure is inseparable from agricultural drainage. Compaction, trenching, pile driving, hardstanding and track formation can break drains, change lateral flow, concentrate runoff and create preferential pathways. Chapter 15 does not map existing underdrainage or assess the combined effect of the CRC, panel cabling, haul roads and permanent foundations on drainage systems.

The Environment Agency’s scoping response stated that the hydrogeological baseline was inadequately understood, required ground conditions to remain scoped in, sought foundation and piling risk assessments, required hydrogeological risk assessment for HDD and identified uncertainty around private water supplies. It also asked for assessment of heat effects from buried high-voltage cables. Those concerns are directly relevant to the soil chapter because disturbed clay layers and trenches control pathways between fields, ditches, groundwater and the Chalk aquifer.

Norfolk County Council, as Lead Local Flood Authority, has also identified incomplete groundwater-flood evidence and challenged assumptions about field ditches and flood extents. Natural England accepts no adverse effect on linked designated sites only if runoff and water-quality controls are secured. The Chapter 15 conclusion that no effects occur beyond the Order Limits is therefore not demonstrated.

BEPS does not assert that aquifer damage or off-site flooding is inevitable. The objection is evidential: the Applicant has not mapped and modelled the source–pathway–receptor relationships needed to dismiss those outcomes.

15.8 Peat and other soils requiring avoidance

Natural England requires clarification of whether peat is present and states that any peat soils should be avoided. It identifies the Isleham 2 association south of Fairstead Lane as deep permeable sandy and peaty soils affected by groundwater. The application contains no definitive field-verified peat map and no binding avoidance area.

Peat should not be treated as another soil-handling unit. Excavation, drainage and aeration may cause irreversible carbon and hydrological loss. Confirmed

peat and organic soils must be identified before consent and removed from permanent infrastructure, trenches, compounds and haul routes.

15.9 Permanent and long-duration BMV loss

15.9.1 The Applicant’s own worst case is significant

The National Grid substation and pylons permanently remove 6.1 ha of Grade 2 land. If the BESS and project substations cannot be restored, the permanent BMV total becomes 18.2 ha. If tracks are retained or cannot be restored, it becomes 28.9 ha. If BMV mitigation planting is also treated as permanent, the total becomes 37.9 ha. Chapter 15 itself classifies the latter two outcomes as moderate adverse and significant. (APP/6.1.15, §§15.8.61–15.8.66; 15.10.1)

These figures must not be obscured by repeatedly presenting individual components as less than 20 ha and therefore minor. The Scheme must be assessed as a whole. The 37.9 ha scenario is likely: the National Grid infrastructure is expressly permanent; deep BESS and substation piles may prevent comparable restoration; tracks may remain; and woodland is intended to remain.

15.9.2 Natural England requires avoidance, not arithmetic minimisation

Natural England advises that the permanent National Grid infrastructure should be reconsidered to avoid BMV land. The Applicant answers that all of Site 1 is Grade 2 and avoidance is therefore impossible within the selected site. That does not demonstrate that the selected site or connection arrangement is the least harmful reasonable alternative. It merely shows that the chosen envelope contains no poorer land. National Grid itself is not committed to this location for a new substation.

The same issue arises for compounds and substations placed on Grade 2 land for access, landscape or operational convenience. The hierarchy requires a transparent comparison of alternative locations, not a statement that BMV is unavoidable inside a preselected boundary.

15.10 Whole-life disturbance, replacement and decommissioning

The assessment presents construction, operation and decommissioning as discrete phases and repeatedly characterises operational soil disturbance as negligible. ISH1 has now provided a more precise account of the whole-life disturbance pattern. The Applicant confirmed that temporary internal haul routes serving Sites 7 and 8 would be removed after initial construction, although permanent maintenance tracks would remain within the solar sites. More importantly, when asked about future panel replacement, the Applicant confirmed that the same construction-compound areas would be needed again, on a phased basis, when the modules are replaced. The application also assumes complete replacement of the solar panels once during the operational period and replacement of the BESS up to five times.

The relevant soil disturbance is therefore not a single construction event followed by approximately 60 years of undisturbed operation. It comprises initial construction and compound formation; routine maintenance and repair; continuing use of permanent tracks; remobilisation of at least some of the original compound areas for panel replacement; potentially repeated BESS replacement; and eventual decommissioning and restoration. The Applicant has not demonstrated that Chapter 15 assesses the cumulative effect of those successive disturbance cycles on compaction, soil structure, drainage or restoration capability. Phasing may reduce the area disturbed at any one time, but it does not remove repeated disturbance from the same soils.

The decommissioning case is equally assumption-led. Chapter 15 says narrow cable trenches will be fully reversible, piles will be pulled out in dry conditions, stored topsoil will be replaced after 60 years and no adverse land-quality effects will result. It provides no trial evidence, performance standard or allowance for deteriorated stockpiles, deep foundations, cable retention, changed contours, drainage failure or contamination.

The Outline DEMP further states that the National Grid substation will remain, some cables may remain, some biodiversity areas may remain and future land use will be chosen by landowners. The application therefore does not secure a complete return to agricultural use or BMV grade.

15.11 Existing stewardship function and public investment

15.11.1 Stewardship is part of the existing baseline

Parts of the Order Limits are managed under Sustainable Farming Incentive, Countryside Stewardship and earlier Environmental Stewardship arrangements. BEPS' review of Natural England spatial data identifies substantial agreement land associated with Sites 4, 5 and 7, including Entry Level Plus and Higher Level Stewardship extending from approximately 2013 to at least 2028. The management pattern includes low-input land, field margins, winter food or stubble and habitat mosaics relevant to skylark, lapwing and turtle dove.

Chapter 15 acknowledges agri-environment management but treats it principally as uncropped land, a future trend away from food production, or evidence that solar land take is relatively unimportant. That is a serious mischaracterisation. Stewardship land remains part of an agricultural holding, generates farm income and delivers publicly funded environmental functions.

15.11.2 The ecological function cannot be replaced by the label 'grassland'

The stewardship function includes open nesting habitat, reduced disturbance, seed resources, winter food, field margins and continuity between fields, hedges and ditches. The Applicant's own ecology surveys recorded 81 skylark territories, including 70 within permanent development areas. That is direct evidence that the present managed landscape supports a substantial breeding population.

Dense panel rows, fencing, access tracks and screening planting transform open field geometry. For skylark and lapwing, openness and sightlines are part of the habitat. For turtle dove, the value lies in the relationship between seed-rich

foraging areas and nesting scrub or hedgerows. Generic grass beneath panels is not functionally equivalent.

15.11.3 Expiry of an agreement does not erase the baseline

The fact that some agreements may expire near the proposed 2028 construction start does not remove their ecological or agricultural legacy. Habitats and species do not disappear when a payment contract ends. Replacement environmental schemes, voluntary continuation or comparable management are plausible future baselines. The Applicant has effectively compared the Scheme with an assumed degraded future and then claimed benefit from ending intensive arable use.

The application should identify each affected agreement, its options, duration, public value, target outcomes, termination consequences and any repayment liability. It should then demonstrate functional replacement. A positive BNG score does not answer that question because the metric does not measure species-specific nesting success, open sightlines or continuity of stewardship management.

15.11.4 The loss is immediate; replacement is uncertain

Construction is proposed to begin when identified stewardship agreements may end. The transition would therefore be directly from stewardship management to fencing, piling, trenching and machinery. Existing nesting, winter-food and margin functions would cease immediately. Replacement habitats would take time to establish and their carrying capacity is unproven.

The soil and agricultural chapter must recognise that loss as both an agricultural-management effect and an ecological baseline effect. It cannot be left wholly to Chapter 8.

15.12 Mechanical mowing, herbicides and the absence of agricultural continuity

15.12.1 The Applicant’s documents are internally inconsistent

Chapter 15 repeatedly relies on possible sheep grazing. It says the land may be grazed, that sheep would level minor ruts, that affected livestock businesses may graze beneath panels, and that the agricultural enterprises operating at decommissioning will be based on sheep production. The Applicant has now stated, however, that the intended vegetation-management regime is mechanical mowing and herbicide use, with grazing no more than a possible future option. The assessment therefore evaluates and claims benefits from a land-management scenario which is not the proposed operational case. (APP/6.1.15, §§15.8.86, 15.8.90, 15.8.95 and 15.8.144)

That inconsistency matters. Chapter 15 uses grazing to support continuing agricultural use, farm-business resilience, food-production claims and its assumed decommissioning baseline. If grazing is not intended, those conclusions must be withdrawn and the actual mowing-and-herbicide regime assessed.

15.12.2 Mechanical mowing creates recurrent trafficking and compaction risk

Mechanical vegetation control is not soil-neutral. It requires repeated access by tractors, mowers or specialist machinery throughout the operational life, including travel beneath and between arrays, turning at row ends and access during periods when vegetation control is operationally necessary rather than when soil conditions are ideal. On slowly permeable, seasonally wet clay soils, repeated wheelings can create rutting, localised compaction and shear damage, particularly along fixed routes and headlands.

Chapter 15 states that there will be no requirement for heavy machinery during operation and that there will be no compacting of soils. Those categorical conclusions cannot stand if mowing is the principal management method. The Applicant has not identified machinery type, axle load, tyre pressure, frequency, seasonal timing, access pattern, wet-weather restrictions or remedial thresholds. Nor has it assessed cumulative compaction from mowing together with cleaning, inspections, repairs and component replacement. (APP/6.1.15, §§15.8.83–15.8.100)

Mowing also removes biomass from the sward if cuttings are collected and may create a thatch layer or nutrient redistribution if they are left. Either outcome affects the Applicant’s assumed increase in soil organic matter. The management plan does not state whether arisings will be removed, mulched or retained, how nutrient export will be addressed, or how bare ground and erosion caused by repeated cutting will be prevented.

15.12.3 Herbicide use is unquantified and incompatible with the claimed soil benefit

The Applicant proposes that vegetation may be controlled by herbicides, yet identifies no active substances, application method, target vegetation, quantities, frequency, seasonal restrictions, exclusion zones or maximum lifetime chemical loading. It therefore provides no basis for assessing effects on soil organisms, microbial activity, non-target plants, organic-matter formation, water quality or restoration to food production.

This omission directly undermines Chapter 15’s beneficial-soil case. The Chapter argues that conversion from arable farming will reduce chemical inputs and allow biological and organic-matter recovery. It cannot claim that benefit while retaining an undefined right to apply herbicides for up to 60 years. A statement that use will be ‘reduced’ or ‘minimised’ is not an assessment unless the existing baseline and proposed products, rates and frequency are quantified.

The risk is heightened by field drains, ditches, private water supplies and the connected water environment. Herbicide application beneath arrays may occur in shaded or sparsely vegetated areas where runoff and infiltration differ from open fields. Any use near drains, watercourses, the CRC, substations or the Chalk

aquifer requires a source–pathway–receptor assessment and binding buffers. The current Chapter contains none.

15.12.4 Mowing and herbicides do not amount to continued agricultural use

A regime of mechanical cutting and chemical weed control is vegetation maintenance for an electricity-generating installation. It does not produce food, maintain an arable rotation or demonstrate that the land remains available for ordinary agricultural management. The Applicant cannot rely on the statutory breadth of the term ‘agriculture’ or on a hypothetical future grazier to disguise the operational reality.

The loss is therefore more severe than Chapter 15 presents. Productive Grade 2 and 3a land would cease commercial agricultural production for approximately 60 years and would instead be maintained to protect access, equipment performance, fire safety and ecological prescriptions. That is long-term agricultural displacement, not dual use.

15.12.5 The actual management regime must be fixed and monitored

The DCO must not leave the choice between mowing, grazing and herbicides to an unspecified future LEMP. Those methods have materially different soil, water, biodiversity, fire and farm-business effects. The Applicant must identify the proposed regime now and assess its reasonable worst case.

At minimum, the operational land-management plan should specify machinery and ground-pressure limits; mowing frequency, timing and routes; wet-soil stop-work criteria; treatment of cuttings; prohibited and permitted herbicides; application rates and methods; no-spray buffers; records and public reporting; soil-biological and chemical monitoring; water-quality monitoring where pathways exist; and remediation triggers. Broadcast or routine prophylactic herbicide use should be prohibited. Chemical treatment should be confined to exceptional, targeted circumstances where non-chemical control has failed.

Without those controls, the Applicant has not demonstrated either the claimed operational soil benefit or the absence of adverse operational effects.

15.13 Farm-business effects, compulsory acquisition and severance

15.13.1 The baseline is incomplete

Appendix 15.2 excludes the CRC. Chapter 15 therefore has no whole-scheme farm-business assessment despite the corridor crossing multiple holdings and being required for haulage, compounds and cable construction.

15.13.2 The affected proportions are substantial

The Applicant records approximately 25% of Farm 2, 35% of Farm 3, 26% of Farm 4, 18% of Farm 5, 29% of Farm 6 and 26% of Farm 8 within the Scheme. These are not minor changes. The farms include arable crops, livestock, poultry, sugar beet, local grain outlets, contract farming, stewardship and diversified activities. (APP/6.1.15, Table 15.15; APP/6.3.15.2)

The assessment repeatedly says businesses will benefit from secure income. It does not identify which landowners receive rent, which tenants or contractors lose work, what compensation applies, whether replacement land exists, or how the retained businesses will operate. Secure income is asserted, not evidenced.

15.13.3 Compulsory acquisition is not cured by compensation

Where freehold land or permanent rights are compulsorily acquired, a business may lose a coherent block, access, drainage control, grazing relationships or contractor economies. It may need to reduce scale, reorganise rotations, obtain replacement land or cease part of its operation. Compensation does not preserve business continuity and does not answer the planning harm.

The Applicant should provide a holding-by-holding acquisition, severance and viability assessment identifying owners, tenants, contractors, rights sought, operational function of the affected land and the measures by which each remaining business can continue.

15.13.4 Decommissioning effects are speculative

Chapter 15 assumes that future enterprises will be sheep-grazing businesses of low sensitivity and can simply move elsewhere during one to two years of decommissioning. The businesses operating in 60 years are unknown. The assessment cannot lawfully reduce future sensitivity by assuming the very land-use change caused by the Scheme.

15.14 Food production, rural economy and cumulative effects

15.14.1 The economic valuation is artificially narrow

Chapter 15 values BMV land only by the marginal yield difference between a high and average cereal budget, producing an estimate of approximately £190,000 per year and 1,020 tonnes of incremental output. That does not measure the ‘economic and other benefits’ of BMV land.

The calculation omits rotational flexibility, crop choice, resilience in wet or dry years, livestock and poultry integration, drainage investment, stewardship income, local contracting, storage, haulage and the strategic value of retaining domestic production capacity. It also assumes a hypothetical non-BMV comparator without identifying an alternative site.

15.14.2 National percentages do not answer local concentration

The Applicant repeatedly compares East Pye with total national or county land and production, making the effect appear negligible. That logic would make every individual large scheme negligible and would never identify cumulative concentration.

Norfolk County Council identifies East Pye, Droves, Tasway and High Grove as affecting more than 4,750 ha. It objects to the lack of a strategic approach and the cumulative implications for food production, communities and businesses. Chapter 15's cumulative assessment must address overlapping land removal, construction, contractor demand, drainage and farm restructuring, not merely project-by-project national percentages.

15.14.3 Stewardship land is not 'unused' land

The comparison with uncropped arable and agri-environment land is misleading. Land in stewardship is delivering environmental goods, remaining within farm systems and often retaining future production potential. Its existence does not justify converting additional BMV land to industrial use.

15.14.4 Imports and predicted productivity do not remove the harm

Chapter 15 relies on stable self-sufficiency, international trade and predicted productivity growth. Those matters do not prove that this BMV-heavy location is necessary or optimal. Nor do they remove the resilience value of productive domestic land in a period of climatic and geopolitical uncertainty.

15.15 BNG, restoration and the absence of a fixed end-state

The Applicant relies on permanent or long-term woodland, grassland and habitat creation as mitigation and BNG, while also describing the agricultural loss as temporary. Both propositions cannot be assumed simultaneously.

If BNG habitats and woodland remain after decommissioning, the land does not return to its former agricultural use. If the land is returned fully to arable production, habitat units relied on during operation may be destroyed. The Outline DEMP does not identify which habitats will remain, what biodiversity units will survive decommissioning or how restoration works will avoid them.

ISH1 exposed the same conflict within the operational lifecycle itself. The Applicant described Site 6 as being given over in its entirety to biodiversity mitigation once construction is complete, but confirmed that Site 6 is also used as a construction compound. When asked what would occur when the solar modules are replaced, the Applicant stated that the same construction-compound areas would be needed again on a phased basis. When BEPS asked how land could function as an ecological area and later return to construction-compound use, the Applicant did not provide an answer and agreed to take the matter away for ecological input. The soil consequence is equally unresolved: if a compound is demobilised, restored and established as habitat, but must subsequently be remobilised for major replacement works, the assessment must account for the second cycle of trafficking, hardstanding or ground preparation, soil disturbance, habitat loss and subsequent restoration rather than treating the first restoration as a permanent end-state.

The conflict is particularly acute on stewardship land. The Scheme may replace existing publicly funded ecological function with new metric habitat, then count the latter as gain without accounting properly for the species-specific function lost.

A fixed post-decommissioning land-use plan is required. It must identify permanent infrastructure, retained habitats, agricultural restoration areas, target ALC grades and the mechanism for resolving any conflict between BNG obligations and agricultural reinstatement.

15.16 Soil management, monitoring and financial security

15.16.1 The oSRMP is necessary but not sufficient

Natural England welcomes the rainfall and stop-work controls but states that key methods and controls remain high level and deferred. A later detailed SMP cannot cure a missing pre-consent baseline or demonstrate that the authorised layout has avoided sensitive soils.

The ExA has now expressly identified this as an Examination issue. ExQ1 Q1.13.1 asks the Applicant and Natural England whether the oSRMP provides sufficient certainty where cable-route surveys, soil characterisation, stockpile arrangements, monitoring procedures and restoration methodologies are to be developed post-consent, and asks what additional matters would need to be defined or secured before the Secretary of State could conclude on likely significant effects. The question closely reflects the distinction made in this Written Representation. Later work may legitimately refine an already demonstrated acceptable soil-management and restoration solution; it should not be relied upon to establish after consent the baseline characteristics, mitigation requirements or restoration capability necessary to determine whether an acceptable solution exists at all.

The plan also relies heavily on contractor monitoring and sign-off. Restoration should be independently verified against measurable criteria, not accepted because the soil has been replaced and grass has grown.

15.16.2 Required performance standards

The DCO should require parcel-specific baselines and restoration thresholds for bulk density by depth, structure, infiltration, organic carbon, particulate organic matter, drainage function and contamination. ALC reclassification and at least two cropping seasons of yield evidence should be required before final sign-off.

Operational monitoring should compare under-panel, inter-row, track-edge and control areas. It should occur at defined intervals and before and after major replacement works. Trigger exceedances must require remediation. That monitoring should also expressly cover construction-compound areas before initial construction, after first reinstatement, immediately before and after their reuse for replacement works, and following final restoration.

15.16.3 Private decommissioning securities do not yet secure agricultural restoration

The Applicant has now stated that private landowner agreements contain decommissioning securities intended to provide protection against default or insolvency and capable of periodic revaluation or top-up. BEPS therefore does not contend that no financial provision exists.

The unresolved issue is whether those private contractual arrangements are sufficient to secure the agricultural and soil-restoration outcomes relied upon in the Environmental Statement.

A landowner-specific security may provide valuable financial protection to the contracting farmer, but its existence does not establish that the amount secured will be sufficient to meet the full cost of decommissioning and restoration after approximately 60 years. In particular, it is unclear whether the security covers only removal of panels and associated infrastructure or also the potentially more expensive consequences identified in this Chapter: removal of tracks and foundations, drainage reconstruction, deep decompaction, restoration of soil structure, contamination remediation, reinstatement of field systems and prolonged aftercare where agricultural capability does not recover immediately.

That distinction is critical for East Pye's heavy, slowly permeable and seasonally wet BMV soils. If decommissioning reveals deep compaction, damaged drainage, contamination or persistent loss of soil structure, the cost of restoring the land to its former Agricultural Land Classification may materially exceed the cost originally assumed for equipment removal. The Applicant should therefore demonstrate that the security is valued against the full restoration obligation existing at each review date, rather than merely by applying indexation to an original estimate.

The Examination also needs to understand who determines the required amount, how often it is reviewed, whether the valuation is independent, who can require a top-up and what happens if the undertaker fails to provide one. The security should remain available until restoration has been independently verified against objective soil, drainage and agricultural-capability standards.

There is also a wider coordination issue. East Pye is one integrated NSIP spread across multiple agricultural holdings. If the undertaker defaulted, it is not clear whether individual landowners would each be required to procure decommissioning and restoration on their own land or whether a single body would remain responsible for Scheme-wide coordination. Private financial security cannot by itself guarantee coherent restoration across shared access routes, drainage systems, cable corridors, ecological mitigation areas and adjoining holdings.

Nor is it yet clear whether the relevant planning authority responsible for enforcing the DCO would have any right to call upon the private securities if the undertaker became insolvent. A contractual remedy available to an individual landowner is not necessarily equivalent to a publicly enforceable, whole-Scheme restoration mechanism.

The Applicant should therefore disclose sufficient information to establish the common structure of the decommissioning securities, including their form, beneficiary, scope, valuation methodology, review frequency, insolvency protection, transferability, enforcement mechanism and coverage of soil and drainage restoration.

The DCO should continue to place clear responsibility for whole-Scheme decommissioning and agricultural restoration on the undertaker or its successor and should require objective restoration standards, independent verification and

sufficient financial provision to remain in place until those standards have been achieved.

The existence of private landowner securities therefore changes the factual position, but it does not resolve the underlying planning issue. The Applicant has still not demonstrated that the agricultural restoration on which it relies is financially secured across the whole Scheme if restoration proves materially more difficult or expensive than presently assumed.

15.17 Site-specific conclusions

15.17.1 Site 1

Site 1 is the Scheme's principal industrial node. It contains the BESS, project substations, proposed National Grid substation, overhead-line works, permanent access and compounds on predominantly Grade 2 land. The National Grid substation is permanent; the BESS and substations may require piles up to 10–12 m; and the Applicant accepts that comparable restoration may not be achievable.

Natural England's avoidance objection is therefore directly engaged. The Applicant has not shown that this concentration of permanent and deep-founded infrastructure is the least harmful connection solution or that all land and powers remain necessary. Until the grid design is fixed, permanent acquisition and industrialisation of Grade 2 land should not be authorised.

15.17.2 Site 5

Site 5 is predominantly Grade 2 land and forms part of a functioning arable and stewardship landscape. Its drainage connects toward the River Tas catchment. The 400 kV project substation may be positioned partly on Grade 3b land, but the surrounding construction, access and panel development remain on BMV fields.

The detailed ALC result should have triggered a renewed alternatives review. The Applicant has not shown why the Grade 2 panel and compound areas cannot be removed or reduced, nor has it assessed the combined effects on field drainage, stewardship function and downstream pathways.

15.18 Overall conclusion

Chapter 15 reaches its benign conclusions by assuming what it must prove. The unsurveyed CRC is assumed restorable; 60-year effects are assumed reversible; clay soils are assumed repairable; drainage effects are assumed contained; arable businesses are assumed resilient; a hypothetical grazing regime is used to preserve the appearance of agricultural continuity even though the intended management is mechanical mowing and herbicide use; stewardship land is treated as future non-production; and decommissioning is assumed funded and successful.

The Applicant's own evidence points the other way. The Scheme contains 829.1 ha of surveyed BMV land; the full corridor remains unsurveyed; the highway strategy depends in part on internal haul routes and CRC connections, while some temporary haul routes are intended to be removed and permanent maintenance/access tracks retained; permanent BMV loss may reach 37.9 ha

and is significant; farm holdings lose substantial proportions of land; Natural England maintains amber objections; and the councils identify strategic and cumulative harm.

The Secretary of State cannot safely treat those effects as minor or reversible. The correct response is substantial redesign and avoidance. If that cannot be achieved within the Examination, consent should be refused.

15.19 Remedies sought

BEPS requests the following:

- A complete detailed ALC and soil survey of the entire CRC and every haul route, compound, laydown area, access, crossing and other disturbed agricultural area, submitted during Examination.
- A reconciled BMV schedule explaining the 829.1 ha, 868 ha, 68.4%, approximately 80%, 6.1 ha, 18.2 ha, 28.9 ha and 37.9 ha figures.
- A renewed alternatives and mitigation-hierarchy assessment using the final detailed ALC evidence, with permanent infrastructure, compounds, woodland and long-duration tracks removed from BMV and peat wherever practicable.
- A definitive peat survey and binding avoidance of confirmed peat and organic soils.
- A revised significance methodology which does not classify every assertedly reversible effect as low magnitude irrespective of scale, duration and frequency.
- A parcel-specific compaction and drainage assessment covering construction, maintenance, emergency repair, replacement and decommissioning.
- Mapping, protection, repair and hydraulic verification of agricultural underdrainage, coordinated with the FRA, LLFA and Environment Agency requirements.
- Independent baseline and monitoring of bulk density, structure, infiltration, organic carbon, particulate organic matter, drainage and contamination in panel, inter-row, track, compound and control areas.
- Operational monitoring of soil biology and chemistry, including organic carbon, particulate organic matter, microbial indicators and any herbicide residues, with comparison between under-panel, inter-row, mown, treated and untreated control areas.
- A full stewardship schedule identifying agreements, options, public investment, target functions, termination consequences and species-specific replacement measures.
- A fixed operational vegetation and land-management plan based on the actual proposed regime, identifying machinery, mowing frequency and routes, wet-weather restrictions, treatment of cuttings, any herbicide products and maximum application rates, no-spray buffers, monitoring and remediation triggers; routine broadcast herbicide use should be prohibited, and grazing must not be relied upon unless it is secured and fully assessed.
- A whole-scheme farm-business, tenancy, contract-farming, compulsory-acquisition, severance and viability assessment including the CRC.
- A revised food-production and rural-economy assessment addressing cumulative regional concentration and the full economic and resilience value of BMV land.
- A fixed post-decommissioning agricultural and ecological end-state reconciling retained BNG habitats with restoration to BMV use.

- Independent restoration standards, ALC reclassification, at least two cropping seasons of yield verification and enforceable remediation triggers.
- An independently costed, index-linked and insolvency-proof decommissioning and soil-restoration security, established before commencement and reviewed periodically.
- DCO Requirements preventing commencement of any phase until the relevant survey, avoidance, soil, drainage, stewardship, monitoring and financial-security measures have been approved.

Absent those measures, the residual uncertainty cannot lawfully be transferred to post-consent plans. The application has not demonstrated acceptable effects on soils, BMV land, stewardship functions or agricultural businesses.

Principal evidence

ES Chapter 15 – Soils and Agricultural Land, APP/6.1.15.

ES Figure 15.1 – ALC Results, APP/6.2.15.1.

ES Appendix 15.1 – Agricultural Land Classification, APP/6.3.15.1.

ES Appendix 15.2 – Farm Reports, APP/6.3.15.2.

Outline Soil Resource and Management Plan, APP/7.9.

Outline Cable Route Construction Statement, APP/7.21.

Outline Decommissioning Environmental Management Plan.

Natural England Relevant Representation, 10 June 2026, especially NE5–NE8.

Norfolk County Council Relevant Representation, 10 June 2026, including LLFA comments.

South Norfolk District Council Relevant Representation, 10 June 2026.

Environment Agency scoping and examination representations on groundwater, piling, HDD, private water supplies and watercourse protection.

Carvalho et al. (2025), Plant and soil responses to ground-mounted solar panels in temperate agricultural systems, Environmental Research Letters 20 024003.

ADAS/Welsh Government, The impact of solar photovoltaic sites on agricultural soils and land.

ISEP, Solar PV on Agricultural Land: Essential Components of Environmental Assessments and Reports.

BEPS review of Natural England Environmental Stewardship spatial data and the Applicant’s ecology evidence on farmland birds.

Applicant vegetation-management statements and the Outline Landscape and Ecology Management Plan concerning mechanical cutting, herbicide use and optional grazing.

dship under the Planning Act 2008 and national policy.

5.20 Agri-Environment Stewardship Land and Loss of Function for Ground-Nesting Farmland Birds

5.20.1 Existing Stewardship Function

Multiple parcels within the Scheme boundary are subject to publicly funded agri-environment stewardship prescriptions specifically designed to support priority ground-nesting farmland birds, including lapwing (*Vanellus vanellus*), skylark (*Alaudala arvensis*), and turtle dove (*Streptopelia turtur*). These prescriptions typically require:

- Retention of open, unfragmented field systems;
- Maintenance of specific sward heights or fallow conditions during breeding season;
- Provision of bare or sparsely vegetated ground for nesting;
- Wet features or damp soils for invertebrate-rich chick foraging (lapwing);
- Skylark plots or undrilled areas within arable fields;
- Seed-rich margins and low-disturbance foraging areas (turtle dove);
- Minimal structural intrusion within breeding territories.

These schemes are evidence-led. They are designed to reverse documented national declines in breeding farmland bird populations and are calibrated to habitat structure, openness, and disturbance thresholds required for reproductive success. They are not generic grassland enhancement schemes; they are species-targeted interventions with measurable ecological objectives.

The presence of such stewardship agreements is therefore strong evidence that the land currently performs a defined ecological function of regional importance.

5.20.2 Structural Change Under Solar Development

The proposed development would introduce:

- Dense rows of photovoltaic panels across open fields;
- Perimeter security fencing;
- Internal access tracks and infrastructure corridors;
- Substation compounds and associated hardstanding;
- Increased vertical structures across previously open landscapes;
- Long-term fragmentation of field units.

These elements materially alter the physical and perceptual openness of the land. For species such as lapwing and skylark, which evolved in open, low-structure environments with wide sightlines for predator detection, the introduction of vertical elements and field fragmentation is ecologically significant.

Solar arrays convert large, contiguous open territories into compartmentalised environments. Even if ground cover remains vegetated, the structural envelope changes. Habitat suitability for open-country breeders depends not only on vegetation composition but on landscape geometry and visibility.

5.20.3 Species-Specific Functional Impacts

Lapwing

Lapwing require open landscapes with clear sightlines, short or patchy vegetation for nesting, and damp soils rich in surface invertebrates for chick feeding. Fragmentation and structural intrusion reduce habitat attractiveness and may increase perceived predator risk. Shading patterns and altered soil moisture dynamics beneath panels change invertebrate distribution and may reduce chick foraging efficiency. Disturbance during construction and operational phases further compromises breeding success.

Skylark

Skylarks depend on large, unbroken expanses of arable or open ground. They are sensitive to vertical structures and enclosure. The introduction of panel rows and fencing reduces effective territory size and may displace breeding pairs. Skylark plots within arable systems cannot be functionally replicated beneath industrial arrays without demonstrable evidence of comparable territory structure and nesting success.

Turtle Dove

Turtle doves require mosaic landscapes: open foraging ground, seed-rich margins, scrub nesting habitat, and access to clean water. Uniform under-panel vegetation and fragmented field patterns do not replicate this mosaic. Changes in ground flora composition and shading regimes may reduce seed availability. Infrastructure density increases disturbance and reduces suitability of open feeding areas.

5.20.4. Stewardship Objectives vs. Solar Habitat Claims

Agri-environment stewardship schemes are designed around measurable species outcomes, particularly breeding success and territory retention. Biodiversity Net Gain (BNG) metrics, by contrast, measure habitat area and condition scores rather than species-specific reproductive performance.

A development may technically deliver grassland units within a BNG metric while simultaneously reducing suitability for target farmland bird species. Habitat area and structural openness are not interchangeable metrics.

The critical examination question is therefore:

Has the Applicant demonstrated that the post-development environment will maintain or enhance breeding success for lapwing, skylark and turtle dove at least equivalent to current stewardship performance?

Absent species-specific modelling, breeding surveys under array conditions, and evidence from comparable large-scale installations, such equivalence cannot be assumed.

5.20.5. Functional Habitat Loss Despite Nominal Habitat Retention

The Scheme does not merely change land use from arable to grass. It transforms open, stewardship-managed farmland into an enclosed industrial landscape with persistent vertical infrastructure. For ground-nesting birds whose conservation prescriptions rely on openness and minimal structural intrusion, this constitutes functional habitat loss even if vegetative cover remains.

Where publicly funded stewardship land designed for farmland bird recovery is converted to solar infrastructure, the burden rests on the Applicant to demonstrate that conservation objectives will not be undermined. Replacement of targeted stewardship habitat with generic grassland beneath solar arrays does not demonstrate ecological equivalence.

5.20.6. Conclusion

The fields affected by the Scheme currently operate as active components of a species-specific farmland bird recovery framework. The proposed development introduces structural fragmentation, vertical intrusion, and long-term landscape modification incompatible with the ecological conditions under which these stewardship prescriptions were designed.

Without robust, site-specific evidence demonstrating maintenance of breeding territories and reproductive success for lapwing, skylark and turtle dove, the Scheme represents a loss of functional priority habitat rather than a neutral land-use change.

In ecological terms, the issue is not whether vegetation remains. It is whether the ecological function for which the land is currently protected can realistically persist under a fundamentally altered landscape structure.

Chapter 16: Ground Conditions

16.1 Executive summary and principal objection

The Applicant has not demonstrated that East Pye Solar can be constructed, operated and decommissioned without unacceptable effects arising from historic contamination, contaminant mobilisation, groundwater pathways, private water supplies, peat, ground instability and intrusive construction methods.

Chapter 16 is not founded on a comprehensive investigation of the land within the Order Limits. Its technical basis is a Phase 1 desk study and qualitative preliminary risk assessment, drawing heavily on published mapping, historic records and a sparse network of pre-existing boreholes. The Applicant accepts that representative ground-investigation information is available for only a small proportion of this geographically extensive Scheme. That was the reason the Planning Inspectorate rejected the original proposal to scope ground conditions out: historic workings had not been adequately considered, the risk across most of the site remained unknown, and there was insufficient information to exclude significant effects.

The final ES has not cured that evidential defect. It has supplemented the desk study, but still postpones the intrusive ground investigation, Phase 2 assessment, Foundation Works Risk Assessments, piling assessments and crossing-specific hydrogeological assessments until after consent. The Environment Agency’s own Relevant Representation confirms that further work remains necessary on piling and deep foundations, underground cabling, private and public water supplies, historic contamination and the adequacy of the proposed post-consent investigation and Foundation Works Risk Assessments. The ExA has now separately identified the same issue in ExQ1 Q1.16.1 and Q1.16.2, asking how a no-significant-effect conclusion can presently be supported where intrusive ground investigation and the principal foundation and hydrogeological risk assessments remain post-consent.

That deferral is critical because the outstanding matters do not concern minor construction detail. They determine whether driven piles, deep foundations, trenches and HDD may penetrate protective strata, mobilise existing contamination, create preferential pathways to the Chalk or Crag aquifers, affect private water supplies, disturb peat or require the deletion or redesign of parts of the Scheme.

Four central failures follow.

First, the contamination baseline is incomplete and artificially restricted. Only a small number of discrete sources are identified, RAF Tibenham is excluded on distance grounds, and the source-search methodology does not amount to an assessment of groundwater catchments or contaminant travel.

Second, there is no reliable site-wide hydrogeological model. The Order Limits extend across numerous sub-sites, cable corridors, river catchments and variable superficial deposits, but the assessment relies on regional mapping, historic

boreholes and broad assumptions about the continuity and protective function of Diamicton.

Third, the assessment relies on untested embedded mitigation and post-consent investigation to convert acknowledged uncertainty into a conclusion of no significant effect. A future investigation may refine design and mitigation; it cannot retrospectively supply the environmental baseline required to determine whether likely significant effects can presently be excluded.

Fourth, the assessment does not adequately test the actual worst-case construction envelope. The Scheme permits driven and screw piles, deep foundations, trenches up to 2 m deep, grouped trenches up to 7 m wide, HDD, pipe-jacking and substantial below-ground works. Those methods are capable of introducing, mobilising or transmitting contaminants, yet the detailed risk assessments remain deferred.

Chapter 16 nevertheless concludes that all residual ground-condition effects are minor adverse or negligible and not significant. That conclusion is not supported by the evidence and should be afforded no material weight.

16.2 Scope of the objection

This objection addresses the adequacy of the Applicant’s assessment of historic contamination, worked and potentially infilled ground, groundwater and surface-water pathways, private water supplies, peat, geotechnical uncertainty and intrusive construction methods.

It includes the former RAF airfields at Hardwick, Seething and Tibenham; potential PFAS, petroleum hydrocarbons, de-icers, metals, asbestos, radiological materials and unexploded ordnance; historic landfills, pits and refuse deposits; and the risk that construction or decommissioning may mobilise those materials.

It also addresses the vulnerability of the Chalk and Crag Principal Aquifers, Secondary A aquifers within alluvium, river terrace and sand-and-gravel deposits, private wells, boreholes and permitted abstractions, and the relationship between groundwater, ordinary watercourses, the River Tas, Hempnall Beck and groundwater-dependent habitats.

The objection further concerns construction-created pathways and pollution risks arising from driven and screw piles, deep foundations, trenching, HDD and pipe-jacking, launch and reception pits, dewatering, concrete and cement, drilling fluids and frac-out, disturbance of landfills or made ground, utility strikes, and the retention or removal of below-ground infrastructure during decommissioning.

Ground stability, peat, mineral sterilisation, contaminated spoil, remediation, monitoring and long-term liability are also addressed where they bear upon the acceptability or deliverability of the Scheme.

Chapter 16 cannot properly be read in isolation. The Applicant has divided closely connected matters between Chapter 9 on the water environment, Chapter 12 on noise and vibration, Chapter 15 on soils and agricultural land, Chapter 16 on ground conditions, and Chapter 18 on other environmental

matters. That division risks fragmenting the assessment. A contaminant source, a pathway created by piling or trenching, and a groundwater or private-water receptor form one source–pathway–receptor system. They must be assessed together.

The Environment Agency has itself identified inconsistencies between the significance matrices used in Chapters 9 and 16 and has stated that comparable impacts cannot be reliably evaluated between them. It also identifies omitted water-quality risks to private and public supplies and the potential for cable-trench materials and disturbed soils to act as preferential groundwater or contaminant pathways.

16.3 The assessment remains preliminary and desk-based

16.3.1 The Phase 1 assessment is not a site investigation

The technical assessment supporting Chapter 16 is principally desk-based. It relies on published BGS geological mapping, historic Ordnance Survey mapping, aerial photography, Groundsure datasets, historic BGS exploratory boreholes and water-well records, Environment Agency abstraction data, local authority private-water-supply records and a Tier 1 qualitative preliminary risk assessment.

Those sources may identify potential hazards and inform an initial conceptual site model. They do not establish the actual contaminant concentrations, soil and groundwater conditions, groundwater levels, continuity of low-permeability strata, presence of sand lenses, condition of private abstractions or location of unrecorded disposal areas across the final Order Limits.

No comprehensive intrusive investigation has been undertaken across the Scheme. The Applicant instead proposes that the post-consent investigation will inform later assessments, including Foundation Works Risk Assessments. Chapter 16 expressly records that the ground investigation and subsequent assessments are to be undertaken after consent.

The assessment is therefore preliminary in substance, irrespective of the confidence expressed in its final significance conclusions.

16.3.2 The original data gap remains unresolved

The Environment Agency identified substantial uncertainty across the majority of the site. It warned that the conceptual understanding was based on a limited set of historic exploratory-hole records, that the underlying Principal Aquifer and abstractions were sensitive receptors, and that pollutant pathways to deep groundwater could not be discounted. It recommended intrusive site investigation to characterise the ground and update the preliminary risk assessment.

The Planning Inspectorate reached the same essential conclusion. The Phase 1 information covered only a small proportion of the site, leaving an unknown risk

across the majority of the Scheme, and was insufficient to rule out significant effects.

The Applicant’s answer was not to undertake the recommended investigation before application. It undertook further desk-based analysis of Diamicton thickness and agreed that ground investigation could be secured post-consent through the Outline CEMP.

That does not resolve the original deficiency. It merely relocates the fact-finding exercise to a stage after the principle and extent of the development have been authorised.

A post-consent investigation may refine mitigation. It cannot retrospectively provide the baseline evidence required to establish whether likely significant effects can presently be ruled out. The August 2026 NPPF now states this requirement particularly clearly. National decision-making policy P2 requires sites proposed for development to be suitable for their proposed use taking account of ground conditions, contamination and land-instability risks, and expressly requires ‘adequate site assessment information, prepared by a competent person’ to be available to inform those considerations. The policy also places responsibility for securing a safe development on the developer and/or landowner. The NPPF is not the primary policy framework for this NSIP, but its current decision-making policy reinforces the same evidential distinction identified by PINS and the Environment Agency at scoping: later investigation may refine an established solution, but adequate information about the site must exist before a reliable conclusion can be reached on the acceptability of the development.

16.3.3 The local authority evidence confirms the uncertainty

Norfolk County Council’s LLFA identifies extensive uncertainty in the Applicant’s treatment of ground conditions and drainage. It notes that the Scheme extends across 33 sub-sites and 14 cable-route corridors, six river basins and variable ground conditions, yet some drainage conclusions rely on single or unidentified-location calculations. It also identifies contradictory statements as to whether infiltration is viable and says the evidence does not establish where infiltration will work or where runoff will discharge if it does not.

The LLFA’s concern is fundamental. Without site-specific investigation and infiltration testing, it is not possible to determine whether the geological and hydrogeological assumptions in Chapters 9 and 16 are representative of actual conditions at each sub-site and infrastructure location.

The Environment Agency’s examination-stage representation reinforces the same point. It continues to require further work on piling and deep foundations, cabling, private and public supplies, historic contamination and the adequacy of the post-consent investigation framework.

The Applicant’s conclusion of no significant effect therefore rests on conditions that have not yet been established.

16.4 Artificially narrow definition of ground-condition effects

16.4.1 Existing contamination is separated from new construction risks

Chapter 16 confines itself principally to existing contamination in the ground. The Applicant expressly states that only existing contamination is considered in this chapter and that physical changes to groundwater or surface-water pathways are addressed elsewhere.

That distinction is artificial. The environmental effect depends on the interaction between the existing ground and the Scheme. A contaminant may be harmless while undisturbed but become a material risk when piling, trenching, drilling, dewatering or excavation creates a new migration pathway. Equally, a utility strike, grout release, concrete bleed or drilling-fluid breakout may introduce new contamination into the same soil and groundwater system.

Anglian Water identified pressurised sewers and rising mains as potential contamination sources if struck during construction. The Applicant’s response was that the introduction of new contamination falls outside Chapter 16. That does not remove the risk. It demonstrates the defect created by dividing a single foreseeable pollution pathway between separate technical chapters.

The correct question is whether the authorised works can introduce, release or mobilise contaminants into soil, groundwater, surface water or a private supply. It is immaterial for environmental assessment purposes whether the contaminant was present before the Scheme or introduced by it. That approach is also consistent with the revised NPPF. Policy P3 requires development proposals to take account of the likely effects, including cumulative effects, of pollution on health, living conditions and the natural environment, whether those effects arise from the development itself or from pre-existing conditions in its vicinity. The Applicant’s methodological separation between existing ground contamination and contamination introduced or mobilised by construction therefore does not remove the need to assess the resulting source–pathway–receptor effect as a whole.

16.4.2 The source–pathway–receptor model must include scheme-created pathways

A lawful and technically coherent conceptual model must assess the full construction envelope, including driven and screw piles for the solar arrays; deep piled foundations for the BESS and substations; trenches up to 2 m deep; grouped trenches up to 7 m wide; HDD and pipe-jacking; launch and reception pits; dewatering; concrete, cement and grout; drilling fluids and frac-out; utility strikes; disturbed landfills and made ground; movement through sand-and-gravel horizons; and removal or disturbance during decommissioning.

The Scheme description assumes pile-driven or screw-mounted panel supports to a maximum depth of 4 m. Cable trenches may be up to 2 m deep and, where

multiple trenches are grouped, up to 7 m wide. HDD and pipe-jacking are proposed at sensitive crossings.

These works can create both vertical and lateral pathways. The Environment Agency has specifically warned that piled foundations may create contaminant-migration pathways to deeper groundwater and that HDD may introduce drilling fluids or mobilise contamination into controlled waters. It required Foundation Works or Piling Risk Assessments and hydrogeological assessment of sensitive trenchless crossings.

The Agency has also identified the blinding layer and disturbed backfill surrounding cable trenches as potential preferential flow paths for groundwater or mobile contamination.

Generic pollution-prevention measures do not answer those matters. They may reduce accidental releases, but they do not establish the absence, location or significance of source–pathway–receptor linkages. That requires site-specific ground and groundwater evidence before the effects can be reliably classified.

16.5 The contamination baseline is incomplete and methodologically constrained

16.5.1 Only eight sources are mapped across the whole Scheme

Figure 16.3 identifies only eight sources of potential contamination across the entire Order Limits and their immediate surroundings: former RAF Hardwick; former RAF Seething; Market Lane Pit; the former refuse tip at Site 4B; the landfill west of Shelton Airfield; Hempnall sewage works; the landfill off the B1135; and a vehicle-servicing and repair garage.

The objection is not simply that eight is a small number. It is that the result is produced by a constrained search methodology and by reducing complex historic land uses to isolated points or polygons. A former military airfield is not a single uniform source. Fuel storage, fire training, aircraft maintenance, bomb storage, hardstand drainage, demolition, tipping and ad hoc disposal may occur in different locations and create different contaminant profiles. Historic ploughing, infilling and land reworking may also have redistributed contaminated material beyond the apparent source boundary.

Figure 16.3 therefore gives a misleading appearance of precision. It does not demonstrate that the eight mapped sources are exhaustive, nor that contamination is confined within the polygons shown. It records only the sources found through the Applicant’s chosen screening exercise.

16.5.2 The 250 m source-search radius is not a hydrogeological assessment

The Applicant generally limits its search for potentially contaminative land uses to 250 m from the Order Limits. It also applies only a 250 m private-water-supply

and abstraction search around PV arrays and cable trenches, reserving a 1 km search principally for the BESS and substations on the assumption that those structures may require deeper foundations.

Those distances are database-screening conventions. They are not hydrogeological boundaries. They do not establish the direction or velocity of groundwater flow, the extent of an abstraction catchment, connectivity through fissured Chalk or granular Crag, or the influence of vertical pathways created by piling and drilling.

A credible assessment must distinguish between:

- the radial distance used to search records;
- the actual groundwater catchment;
- groundwater flow direction and gradient;
- geological and hydraulic connectivity;
- the zone of influence of a private or public abstraction;
- preferential pathways through granular deposits, disturbed ground, trenches or foundations.

The Applicant's own groundwater discussion recognises that flow through fissured Chalk can occur over distances substantially greater than 250 m. A fixed search radius cannot therefore be treated as evidence that a former airfield, landfill or other source outside that radius is irrelevant.

16.5.3 No sensitivity testing of the source inventory

The ES does not show how the identified source inventory would change if alternative source buffers, groundwater travel distances, abstraction catchments or plausible preferential pathways were applied.

That omission is material. RAF Tibenham is excluded because it is approximately 1.4 km from the Order Limits, while the underlying western Scheme area is associated with Chalk groundwater, private abstractions and deep or potentially piled infrastructure. The Applicant has not tested whether a hydrogeologically defined catchment would include Tibenham or identify further former military or waste-related sources.

The Applicant should be required to repeat the source review using credible groundwater travel zones and abstraction catchments, identify any additional sources, and explain whether the conceptual site model and significance conclusions would change. Without that sensitivity testing, the current list is not a robust contamination baseline. It is the product of an untested methodological assumption.

16.6 Former RAF Hardwick: Site 3 has not been adequately characterised

16.6.1 Historic military use is a material contamination source

Site 3 includes land associated with former RAF Hardwick. The Applicant identifies runways, aircraft hardstands, perimeter infrastructure, ammunition and bomb stores. The contaminants of concern include petroleum hydrocarbons, de-icers, metals, asbestos and PFAS. The assessment also acknowledges a limited potential for radiological and other contamination associated with ad hoc disposal of aircraft, ordnance or related materials.

The Environment Agency specifically identified the former Hardwick bomb-storage area beside the north-western boundary of Site 3A and within the central part of Site 3B. It required the Applicant to consider authorised and unauthorised disposal of aircraft, ordnance and other material, including possible radium-impacted ash.

These are known historic risk indicators, not speculative concerns. Yet there has been no comprehensive intrusive investigation of the bomb-storage, hardstand, disposal or downgradient groundwater areas. The Applicant has therefore identified a potentially serious source but has not established its location, extent, concentration or relationship with proposed piling and cable works.

16.6.2 The low-hazard classification is premature

The classification of former RAF Hardwick as a low-hazard source is not supported by an adequate factual baseline.

The ground has not been comprehensively investigated. Bomb and ammunition storage areas were present. UXO constraints remain. The Environment Agency has identified possible aircraft and ordnance disposal. The land has subsequently been demolished, cultivated and altered, potentially concealing or redistributing material. Nearby receptors include construction workers, residents, groundwater, watercourses and private supplies.

The Applicant’s classification therefore rests principally on assumptions about the likely extent and age of contamination, rather than testing. That is particularly unsatisfactory where the Scheme retains pile-driven supports to a depth of up to 4 m and other intrusive works within the former airfield landscape.

The Applicant also states that later ground investigation may lead to the use of non-penetrative foundations where necessary. That concession undermines its present conclusion. If later investigation may show that the assessed pile-driven solution is environmentally unacceptable, the current construction envelope has not yet been demonstrated to be acceptable.

South Norfolk Council likewise considers that former military sites have clear contamination potential, that excavation creates direct-contact and inhalation pathways, and that the Applicant has understated the human-health risk.

16.6.3 Site 3 lies within a wider legacy-land-use cluster

Former RAF Hardwick cannot be assessed as an isolated polygon. Figure 16.3 also identifies the historic landfill ‘Off West Side of Shelton Airfield Disused’ close to Site 3. The Environment Agency had to require that this landfill be expressly included because it had been omitted from the original scoping discussion. The recorded waste included inert, commercial and liquid-sludge material.

The Site 3 conceptual model must therefore consider interacting sources: former airfield uses, bomb-storage areas, potential disposal locations and the nearby landfill. It must also consider whether construction could connect those sources to groundwater or shallow drainage pathways.

The present source-by-source screening approach risks understating the combined uncertainty. Several individually classified ‘low’ sources may create a materially different risk when they occupy the same hydrogeological setting and are disturbed by a common construction programme.

16.6.4 Named private-water receptors require individual assessment

The assessment does not provide a clear receptor-specific analysis for the supplies serving or associated with Park Farm House, Park Farm Barns, Springwood Lodge, Frog Hollow and Shelton Farmhouse. Each should be identified by precise location, construction type, depth, abstraction horizon, current use and baseline water quality.

The Applicant should also identify any additional nearby wells, boreholes or abstractions contained in local authority, Environment Agency and BGS records. It should then assess the relationship between each receptor, the former RAF and landfill sources, the proposed works and the local groundwater regime.

No direct Site 3-to-River Tas contaminant pathway should be asserted without evidence. The Applicant principally associates Site 3 with the Hempnall Beck catchment. The stronger and properly evidenced concern is the risk to groundwater, private abstractions and connected local watercourses, together with the need to reconcile the wider relationship between Hempnall Beck, its tributaries and the Tas system.

16.7 Former RAF Seething: Site 10 is also under-investigated

16.7.1 The baseline identifies contaminative uses but provides no intrusive confirmation

Sites 10A–10E and CRC14 include land associated with former RAF Seething. The Applicant identifies runways, aircraft hardstands, perimeter roads, bomb-dump structures and former fuel-storage areas. The potential contaminant groups include hydrocarbons, de-icers, metals, asbestos and PFAS.

Those uses are materially different and should not be collapsed into one generic former-airfield source. Fuel storage may generate hydrocarbon and additive contamination; bomb and ammunition areas may contain explosive residues, metals and disposal material; aircraft-maintenance areas may contain oils, solvents and metals; drainage systems may have transmitted contamination away from the immediate activity area.

None of those potential hotspots has been comprehensively confirmed or delineated by intrusive investigation. The Applicant nevertheless assigns generally low or very-low risks.

A parcel-specific schedule is required for Sites 10A–10E and CRC14 identifying:

- the known or suspected historic activity;
- the likely contaminants;
- the investigation undertaken;
- proposed construction method and maximum depth;
- nearby groundwater and surface-water receptors;
- proposed mitigation;
- remaining uncertainty.

Without that breakdown, the assessment cannot show that each part of Site 10 is suitable for the works proposed.

16.7.2 Former-airfield risks cannot be reduced to one source polygon

The single polygon used for RAF Seething obscures the spatial distribution of risk. A former fire-training area, fuel store, bomb dump, hardstand drainage system and disposal area are not environmentally interchangeable. Each requires a distinct source–pathway–receptor analysis.

The Environment Agency initially criticised the omission of RAF Seething from the site description and required its groundwater risks to be assessed. The final ES identifies the airfield but does not fully resolve the concern. Recognition of a source is not the same as characterisation of its extent, chemistry and pathways.

The Applicant should therefore identify the former activity areas separately and assess whether the proposed arrays, cables, access works and foundations would intersect or lie downgradient of them.

16.7.3 Private-water-supply receptors around Site 10 remain unclear

All private supplies around Site 10 should be identified individually. The assessment must state whether each is a shallow well, a borehole into superficial deposits, a Crag abstraction, a deeper Chalk borehole, or a spring-fed or mixed supply.

That distinction is essential. Different supplies have different source zones, travel times, construction integrity and vulnerability. A shallow well may be affected by

near-surface mobilisation; a deeper borehole may be vulnerable through defective casing, annular leakage or construction-created vertical pathways.

The current dataset does not provide the receptor-specific evidence needed to rule out effects. An assumption that a supply probably abstracts from Chalk beneath Diamicton is not an adequate substitute for knowing its location, depth, construction and abstraction horizon.

16.8 RAF Tibenham has been excluded, not shown to be irrelevant

16.8.1 The exclusion is expressly based on distance

The Applicant states that RAF Tibenham has not been considered in Chapter 16 because it lies approximately 1.4 km west of the Scheme.

That is not a finding that Tibenham presents no risk. It is an exclusion produced by the Applicant’s search methodology. No groundwater-flow analysis, contaminant inventory or abstraction-catchment assessment is offered to demonstrate that the former airfield is hydrogeologically disconnected from the western Scheme area.

Distance alone is an inadequate basis for exclusion where the relevant receptors include Principal Aquifers and groundwater abstractions. The correct question is not whether Tibenham lies within a fixed radius, but whether contamination associated with it could enter the groundwater system or influence a receptor affected by the Scheme.

16.8.2 The omission is especially serious around Site 1 and the BESS/substation cluster

The western cluster contains Site 1, the BESS, the National Grid substation, project substations and grid infrastructure. Those works may involve large foundations, concrete construction and deep or piled foundation solutions. The same area contains private supplies and abstractions understood or assumed to draw from Chalk.

Yet Figure 16.3 maps no source of potential contamination in the entire western cluster. That apparent clean baseline is a consequence of excluding RAF Tibenham and restricting the source review, not a product of intrusive investigation.

This creates a circular assessment: no source is mapped because Tibenham is outside the chosen radius; no pathway risk is then identified because no source is mapped; and no further assessment is considered necessary because the resulting risk is said to be low.

That reasoning does not demonstrate environmental safety.

16.8.3 Required analysis

The Applicant should provide:

- a historic-land-use assessment of RAF Tibenham;
- a preliminary inventory of likely contaminants and source areas;
- an assessment of post-war use, demolition, disposal and fire-training activity;
- groundwater-flow and catchment analysis;
- assessment of potential pathways toward Site 1 and nearby abstractions;
- reasoned justification for any final exclusion based on hydrogeology rather than radial distance.

Until that work is completed, the absence of a mapped source around Site 1 cannot be relied upon.

16.9 The PFAS assessment is speculative and deferred

16.9.1 PFAS is acknowledged but not tested

The Applicant accepts that PFAS-containing aqueous film-forming foams came into use from the 1960s. It nevertheless considers PFAS hazards at the former airfields unlikely because RAF Seething closed in 1946 and RAF Hardwick closed in 1962. PFAS is then postponed for consideration during post-consent ground investigation.

That reasoning is insufficient.

Closure dates do not establish the absence of later storage, fire training, commercial use, disposal or imported contaminated material. Hardwick’s closure date coincides with the period when the Applicant says PFAS foams emerged. The Applicant has not provided a complete post-war operational, firefighting, demolition or disposal history for either airfield. Nor has it undertaken soil or groundwater sampling.

The conclusion that PFAS is ‘unlikely’ is therefore not evidence-based. It is a temporal inference made in the absence of testing. The later commitment to consider PFAS after consent confirms that the issue has not been resolved.

16.9.2 Targeted soil and groundwater testing is required

PFAS investigation should be targeted to the locations most likely to contain or transmit contamination, including:

- known or suspected fire-training areas;
- fuel-storage and handling areas;
- hangars and maintenance hardstands;
- drainage outfalls and soakaways;
- bomb and ammunition areas;
- suspected aircraft or materials disposal locations;
- downgradient groundwater points.

The assessment should include both soil and groundwater. It must identify the analyte suite, laboratory detection limits, sampling rationale, groundwater-flow assumptions and assessment criteria.

Testing should occur before the Applicant relies on the absence or low probability of PFAS in its significance assessment. A post-consent discovery that PFAS is present could affect foundation choice, spoil management, worker protection, groundwater mitigation and the developable extent of Sites 3 or 10. Those matters go to environmental acceptability, not merely construction detail.

16.10 Private water supplies: the receptor model is not reliable

16.10.1 The datasets are incomplete and partly inferred

At scoping stage, the Environment Agency identified 35 private water supplies within 250 m for which accurate locations and abstraction-stratum information were unavailable. It required the Applicant to determine their positions, identify the strata abstracted where possible and apply a reasonable worst case, including default SPZ1 protection, where information remained absent.

The revised assessment combines local authority private-supply records, BGS water-well records and Environment Agency abstraction data. The Applicant acknowledges possible duplication and, where one record contains depth or aquifer information and another does not, may assume that the information applies to both.

That approach may be useful for preliminary screening. It is not a reliable receptor model. The location, construction, depth and abstraction horizon of a private supply determine its actual vulnerability. Those facts cannot safely be inferred from a nearby or apparently duplicated record.

16.10.2 Wells and boreholes are not interchangeable

The ES does not adequately distinguish between:

- shallow dug wells;
- shallow boreholes abstracting from superficial deposits;
- deep Chalk boreholes;
- Crag abstractions;
- spring-fed or mixed supplies.

Those receptors behave differently. A shallow well may respond rapidly to near-surface contamination and agricultural drainage. A borehole into Crag may be vulnerable through permeable sand and gravel. A deep Chalk borehole may have a wider source catchment and may be affected through fissures, defective casing, annular leakage or vertical pathways created by foundations.

The absence of a distinction prevents a reliable assessment of travel time, dilution, attenuation and vulnerability. It also prevents the Applicant from defining proportionate monitoring and contingency measures for each receptor.

16.10.3 The conclusion that no supply lies near a mobilisable source is circular

The Applicant concludes that none of the potentially active supplies within the 1 km study areas lies within 1 km of an on-site source from which contamination could be mobilised by construction.

That conclusion depends on:

1. the narrow list of mapped sources;
2. the selected source-search buffers;
3. the exclusion of RAF Tibenham;
4. inferred abstraction horizons;
5. the general assumption that Diamicton protects deeper groundwater.

It therefore does not positively demonstrate that the supplies are safe. It restates the consequences of the Applicant’s own screening assumptions.

Where private supplies surround former airfields or major infrastructure, the Applicant must show the absence of a credible source–pathway–receptor linkage. It cannot achieve that by defining the source out of the study area and assuming the receptor is protected.

16.10.4 A receptor-specific schedule is required

For every potentially affected private or public supply, the Applicant should provide:

- a unique reference and address;
- verified coordinates;
- whether it is a well, borehole or spring;
- construction and casing details;
- total and screened depth;
- abstraction horizon;
- current status and use;
- baseline chemistry and yield;
- distance and direction from proposed works and identified sources;
- receptor-specific source–pathway–receptor analysis;
- monitoring, trigger levels and contingency measures.

Where the information cannot be obtained, the assessment must adopt a clearly stated reasonable worst case rather than assuming protection.

16.11 The geological and hydrogeological model is too uncertain

16.11.1 Principal Aquifers underlie much of the Scheme

Figure 16.2 shows that large parts of the Order Limits are underlain by Chalk or Crag Group bedrock. Both are classified as Principal Aquifers capable of

providing significant quantities of water and supporting surface-water and wetland systems.

These aquifers are not remote receptors. They underlie substantial parts of the authorised development, including areas containing substations, the BESS, solar arrays and cable routes. The groundwater body is also identified as the Broadland Rivers Chalk and Crag system, within which private and public abstractions occur.

The significance assessment therefore depends critically on whether the overlying superficial deposits genuinely isolate the works from those aquifers. That has not been demonstrated on a parcel-specific basis.

16.11.2 The superficial geology is heterogeneous

Figure 16.1 does not show a uniform low-permeability clay blanket. It shows Lowestoft Formation Diamicton together with alluvium, head, peat, river terrace deposits, Leet Hill Sand and Gravel and other granular deposits, particularly around watercourse valleys and the central Scheme corridor.

The Applicant classifies alluvium, river terrace deposits, Lowestoft sand and gravel and Leet Hill Sand and Gravel as Secondary A Aquifers. Those strata can support local water supplies and baseflow to rivers.

This heterogeneity matters because granular deposits may transmit groundwater and contamination laterally, while lenses within the Diamicton may create perched or partially connected groundwater systems. A scheme-wide assertion that shallow works remain within protective clay is therefore unsustainable.

16.11.3 Figure 16.4 does not establish a continuous protective barrier

Figure 16.4 plots approximate Diamicton thickness using sparse historic BGS boreholes. It does not provide a continuous investigated model across every sub-site, cable route or infrastructure location. Large areas remain without representative point control, and the recorded thickness varies across the Scheme.

A regional interpolation from historic boreholes cannot prove that a pile, trench, foundation or HDD bore at a particular location will remain within continuous low-permeability clay. Nor can it establish the absence of fractures, local thinning, granular interbeds or artificial disturbance.

The Environment Agency had previously identified errors in the Applicant’s interpretation of at least one borehole record and warned that inaccuracies could cause significant contaminant pathways to be overlooked. Further desk interpretation does not eliminate the need for site-specific verification.

16.11.4 The Applicant acknowledges water-bearing granular layers within the Diamicton sequence

Appendix 16.2 describes Lowestoft Formation Diamicton as variably sandy and silty clay and expressly states that bands of sand and gravel may occur within or above the general sequence and can be water-bearing.

That admission directly weakens the assumption that the Diamicton necessarily prevents lateral or vertical contaminant movement. A pile or trench need not penetrate the full thickness of the clay sequence to interact with a water-bearing lens, perched groundwater or a preferential flow horizon.

The correct conclusion is therefore not that the Diamicton proves isolation, but that its continuity, thickness and internal composition must be verified at the works locations before pathway risks can be excluded.

16.12 Pile driving and foundations are not adequately assessed

16.12.1 Driven piles form part of the assessed worst-case envelope

The Applicant proposes that solar mounting structures may be pile-driven or screw-mounted to a maximum depth of 4 m. Appendix 16.2 assumes the ‘mini-pile’ option as the standard basis of assessment.

Driven piling must therefore be treated as part of the reasonable worst-case construction envelope unless it is expressly prohibited by the DCO. It is not sufficient to point to screw piles, ballast or non-penetrative options that may later be selected. The environmental assessment must test the most intrusive authorised method.

Revision 2 reinforces that conclusion. Work No. 2 has been amended expressly to retain flexibility in the type of piling used for the BESS, including steel piling. The revised DCO therefore does not narrow the BESS foundation solution to one assessed construction technique. The Applicant must identify the maximum depth, diameter, density and installation method represented by the environmental assessment and demonstrate that every piling solution authorised by the revised Work No. 2 falls within that worst case.

This is particularly important at the former airfields, identified contamination sources, aquifer-sensitive areas and locations close to private water supplies.

16.12.2 Driven piles may create or extend contaminant pathways

Driven piles may:

- penetrate contaminated or made ground;
- transfer contaminated material vertically on the pile surface;
- connect perched groundwater with deeper granular units;
- puncture or locally compromise low-permeability horizons;
- create preferential flow paths around the pile;
- disturb UXO, buried aircraft material or unrecorded waste;
- transfer contaminated soil between locations through installation equipment.

Those mechanisms are not answered by saying that most piles will be only 4 m deep. Figure 16.1 shows heterogeneous superficial deposits, and Appendix 16.2 acknowledges water-bearing sand and gravel layers within or above the Diamicton.

At Sites 3 and 10, the risk is increased because the intrusive method would be used within landscapes containing identified former military sources whose actual extent remains unconfirmed.

16.12.3 Concrete, cement and grout create additional groundwater risks

The Applicant states that concrete or cement may be used for piled foundations at the BESS, National Grid substation and project substations and may also be used at trenchless crossings.

The assessment must therefore address:

- highly alkaline bleed water;
- uncured concrete entering groundwater;
- grout or cement loss into fissures or granular strata;
- changes to groundwater chemistry;
- storage and batching controls;
- spill and loss detection;
- emergency containment and remediation.

Those are foreseeable effects of the authorised construction method. They should not be left to generic method statements without first establishing whether sensitive aquifers or abstractions could be affected.

16.12.4 Foundation Works Risk Assessments are wrongly deferred

The Environment Agency expressly identified insufficient evidence to discount the risk that piling or deep foundations could create contaminant-migration pathways into deeper groundwater. It required Foundation Works or Piling Risk Assessments for the BESS, substations and any other deep-founded structures.

The Applicant proposes to undertake those assessments after consent, informed by a later ground investigation. The Environment Agency’s Relevant Representation confirms that further work remains necessary on piling and deep

foundations, historic contamination, private and public supplies and the adequacy of post-consent investigations and FWRAs.

That deferral is now more significant because the revised DCO expressly preserves additional foundation flexibility rather than selecting a less intrusive method before consent.

That is not a minor drafting issue. The FWRA will determine whether the foundations can be constructed as proposed, whether they require redesign, and whether parts of the authorised development are environmentally acceptable. The assessment needed to establish those matters cannot be wholly displaced into post-consent design.

16.12.5 South Norfolk Council's evidence demonstrates cross-topic harm

South Norfolk Council states that driven piles are unacceptable because of the noise and vibration they generate and recommends screw piles. It also requires site investigation at former military establishments and disagrees with the low human-health risk assigned to those areas because excavation creates direct-contact and inhalation pathways.

Those concerns arise under different technical headings but point to the same design conclusion. Driven piling has potential noise, vibration, contamination, groundwater, archaeological and ecological consequences. Chapter 16 cannot treat it solely as a generic foundation option whose acceptability will be determined later.

The availability of screw or non-penetrative foundations demonstrates that avoidance at source is possible. The Applicant should not retain the more intrusive method without first proving it acceptable.

16.12.6 Required control

The widening or preservation of piling flexibility in Revision 2 makes a binding control more, rather than less, necessary. Driven piling should be removed from the authorised envelope within former airfields, known or suspected contamination zones, peat, Principal or Secondary A aquifer-sensitive areas and defined private-water-supply protection areas.

Alternatively, the DCO must prohibit driven or deep foundations unless:

1. targeted intrusive investigation has been completed;
2. the contamination and hydrogeological conceptual model has been updated;
3. an FWRA has been approved following consultation with the Environment Agency and relevant local authority;
4. the assessment demonstrates no unacceptable effect on groundwater, private supplies, surface waters or human health;
5. objective criteria require screw, ballasted or other non-penetrative foundations where that demonstration cannot be made.

A requirement that merely promises later assessment is insufficient. The DCO must secure a clear prohibition and an enforceable environmental standard.

16.13 HDD and trenchless crossings remain unresolved

16.13.1 The Applicant recognises the risks but has not assessed them

Horizontal directional drilling and other trenchless methods are proposed at watercourse, ecological and infrastructure crossings. These methods may reduce direct surface disturbance, but they introduce distinct subsurface risks. The Environment Agency warned that HDD could introduce drilling fluids or mobilise existing contamination into controlled waters, particularly where drilling interacts with Principal or Secondary A aquifers, passes beneath watercourses or approaches sensitive ecological receptors. It required a hydrogeological risk assessment for such crossings.

Those risks include drilling-fluid breakout or ‘frac-out’; loss of grout or bentonite into fissures and granular deposits; disturbance of contaminated ground; altered groundwater flow; dewatering around launch and reception pits; and creation of preferential pathways between shallow groundwater, aquifers and surface waters.

The Applicant has not provided crossing-specific evidence sufficient to establish that these risks are not significant. It has instead retained the crossing method while postponing the necessary assessment.

16.13.2 Post-consent assessment ‘if required’ is not an adequate control

Chapter 16 states that where trenchless works interact with aquifers, watercourses or sensitive ecological receptors, a hydrogeological risk assessment will be undertaken ‘if required’ after consent.

That formulation is inadequate. It does not identify:

- who determines whether an assessment is required;
- the objective trigger for requiring one;
- the evidence and technical standard to be applied;
- whether the Environment Agency must approve the assessment;
- what happens if the crossing is found to be unacceptable;
- whether an alternative route or construction method remains available.

An assessment cannot be optional where the Applicant already knows that HDD will pass beneath sensitive receptors. Nor is a commitment to identify mitigation later equivalent to demonstrating now that the crossing is technically and environmentally deliverable.

Each material HDD or pipe-jacking crossing should be subject to a mandatory, crossing-specific hydrogeological assessment. The DCO must require avoidance or redesign where unacceptable risk cannot be excluded.

16.13.3 CRC7, Hempnall Beck and Fritton Grange Meadows require a crossing-specific assessment

CRC7 is particularly sensitive. The cable is proposed to pass beneath Hempnall Beck, mapped peat and Fritton Grange Meadows County Wildlife Site. The minerals assessment records that the HDD would pass beneath granular deposits, peat and the designated site, and accepts that the resulting mineral arisings would be mixed with drilling support fluids.

Natural England records that several SSSIs and ancient woodlands are hydrologically connected to the Order Limits and supports the Applicant's conclusions only on the basis that water-quality and pollution-prevention measures are secured. Norfolk County Council separately questions whether HDD is suitable at Fritton Grange Meadows, given the presence of flowing and standing water bodies and the wider hydrological setting.

The Applicant should therefore provide, during the Examination, a CRC7-specific assessment addressing:

- superficial and bedrock geology;
- groundwater levels, direction and connectivity;
- peat depth and hydrological dependence;
- drilling profile and minimum cover;
- drilling-fluid composition and pressure;
- probability and consequences of frac-out;
- launch and reception pit location;
- dewatering requirements;
- connection with Hempnall Beck and field drains;
- pollution-detection and emergency-response arrangements;
- alternative alignments and construction methods.

Until that assessment is supplied, the Applicant has not demonstrated that the proposed crossing can be constructed without unacceptable effects on peat, groundwater, Hempnall Beck or Fritton Grange Meadows.

16.14 Peat has not been consistently identified or protected

16.14.1 The extent and status of peat remain unclear

Chapter 16 identifies mapped peat beneath CRC7 and assumes that effects can be avoided because the cable will be installed beneath it using trenchless methods. Appendix 16.2 likewise treats the peat as a limited mapped deposit associated with the CRC7 crossing.

Natural England remains unsatisfied. It requires clarification as to whether peat soils occur elsewhere within the Order Limits and advises that identified peat should be avoided. It also notes possible deep permeable sandy and peaty soils affected by groundwater in the south-eastern part of the Scheme.

The Applicant has therefore not produced a reconciled account of:

- where peat occurs;
- whether it is peat as a superficial geological deposit, an agricultural soil resource, or both;
- its depth, condition and extent;
- whether it is groundwater-dependent;
- what construction exclusion is secured.

A mapped indication is not a sufficient peat baseline for a 60-year project.

16.14.2 Passing beneath peat does not eliminate hydrological effects

Norfolk County Council expressly seeks confirmation that construction beneath CRC7 will not allow the peat to dry, causing physical damage and carbon emissions. It also states that no infiltration testing or site-specific ground investigation has been undertaken and that the hydrogeological assumptions used by the Applicant cannot presently be verified.

HDD may avoid direct excavation through the peat, but it may still affect it through:

- dewatering at launch or reception pits;
- interception of groundwater feeding the peat;
- drilling-fluid loss;
- settlement;
- altered drainage;
- cable heat;
- damage to connected watercourses and field drains.

The Applicant’s conclusion depends on an assumption that physical separation equals hydrological protection. That assumption has not been demonstrated.

16.14.3 A complete peat assessment and avoidance strategy are required

The Applicant should provide:

- detailed peat mapping and depth survey;
- peat condition and composition;
- groundwater-level monitoring;
- identification of groundwater and surface-water inputs;
- assessment of HDD, dewatering and settlement;
- cable thermal assessment;
- oxidation and carbon-loss assessment;
- construction and restoration controls;
- long-term monitoring with trigger levels.

Avoidance must be the starting point. Where peat or its supporting hydrology cannot be protected with confidence, the cable route, launch pits or construction method must be changed. ‘Passing beneath’ the deposit is not proof that the peat will remain intact.

16.15 Human-health risk is understated

16.15.1 Former military sites create credible worker and resident exposure pathways

Chapter 16 considers inhalation, ingestion and dermal contact with existing contamination, but generally assigns low or very-low human-health risks to the former airfields.

That conclusion is premature. Former RAF Hardwick and RAF Seething contain or may contain bomb-storage areas, hardstands, fuel-handling areas, asbestos, hydrocarbons, metals, unexploded ordnance, possible aircraft-disposal material and potential radiological contamination. The location and extent of those materials have not been established by comprehensive intrusive investigation.

South Norfolk Council accepts that much of the long-used agricultural land may present a low risk. It does not accept that conclusion for the former military areas. It states that excavation and installation works create direct-contact and inhalation pathways and disagrees with the Applicant’s low human-health classification at the airfields.

The proposed works include pile driving, cable excavation, foundation construction, access works and later pile removal. These activities may bring workers and nearby residents into contact with material that is presently buried, bound or undisturbed.

16.15.2 Dust and contaminated-soil movement have not been adequately assessed

The assessment must address the complete chain of exposure arising from disturbed ground, including:

- contaminated dust generated during excavation and piling;
- spoil segregation and temporary storage;
- windblown material from stockpiles;
- mud and contaminated soil tracked onto roads;
- transfer through vehicles and machinery;
- worker inhalation and dermal exposure;
- effects on nearby residents and agricultural land;
- off-site transport and disposal;
- cross-contamination of clean topsoil and subsoil.

Generic dust suppression and personal protective equipment are not substitutes for identifying the contaminant, its concentration and the areas in which it may be encountered.

The Applicant should establish the baseline first and then specify risk-based controls. It has reversed that sequence by assuming standard construction measures will be sufficient before the source has been characterised.

16.15.3 An unexpected-contamination protocol cannot replace investigation

The Applicant relies on discovery protocols and future Phase 2 work if unexpected contamination is encountered. It also proposes that contaminant testing, including PFAS, will occur after consent.

A discovery protocol is appropriate for genuinely unforeseen material. It is not an answer to known former airfields, identified bomb stores, historic landfills and recognised disposal risks.

At those locations, contamination is not ‘unexpected.’ Its precise extent is unknown because the Applicant has chosen not to investigate it before consent. The DCO should not permit that absence of evidence to be converted into a low-risk conclusion.

16.16 UXO and radiological risks require more than generic CDM controls

The Applicant relies on UXO desk studies, future specialist assessment and duties under the Construction (Design and Management) Regulations 2015. Those measures are relevant to worker safety, but they do not resolve the environmental assessment.

The WR should distinguish between:

- managing the immediate risk of explosion;
- identifying contaminated soil and groundwater;
- determining whether ordnance, aircraft material or radium-impacted waste has been buried;
- preventing contaminant mobilisation;
- arranging lawful excavation and disposal;
- establishing whether the proposed foundation or cable design is feasible.

The Environment Agency specifically required consideration of authorised and ad hoc aircraft and ordnance disposal at RAF Hardwick, including possible radiological contamination. Compliance with CDM duties does not prove that such contamination is absent, that it will not be mobilised, or that environmental effects are insignificant.

Sites 3 and 10 therefore require parcel-specific UXO assessment before intrusive ground investigation and before any construction. The UXO and contamination investigations must be coordinated so that safety restrictions do not prevent representative sampling of the very areas most likely to contain contamination.

Where investigation cannot safely or adequately characterise an area, that uncertainty should lead to avoidance, not an assumed low-risk conclusion.

16.17 Utility strikes and buried infrastructure have been wrongly marginalised

16.17.1 Sewers and pressurised water infrastructure are foreseeable contamination pathways

Anglian Water identified rising mains and pressurised sewers as potential sources of pollution if struck during construction. The Applicant responded that the introduction of new contamination lies outside Chapter 16.

That answer is artificial and unacceptable. A strike to a sewage main during trenching, piling or access construction is a foreseeable source–pathway–receptor event. It may release sewage into soil, groundwater, field drainage and watercourses. Whether the pollutant existed before construction is irrelevant.

The assessment must identify:

- the location and depth of all affected pressurised assets;
- crossing and separation requirements;
- construction loading;
- ground-movement and vibration risks;
- isolation and emergency-response arrangements;
- pollution containment and remediation.

The issue cannot be dismissed simply by assigning it to another chapter.

16.17.2 The national gas transmission pipeline is a major ground and construction constraint

The interaction between the Site 7 haul-road strategy and the National Gas transmission pipeline is now an express Examination issue rather than simply a constraint identified by BEPS. At ISH1, BEPS asked how the proposed haul road through Site 7 would cross the high-pressure gas main. The Applicant did not provide the engineering solution. It referred instead to the protective provisions in the dDCO for National Gas and agreed to take away the technical question of how the crossing would actually be achieved. The transport consultant subsequently confirmed that the relevant internal haul routes are proposed for construction traffic. The existence of protective provisions therefore does not itself demonstrate the physical feasibility or environmental acceptability of the crossing.

The assessment should address:

- loading from HGVs and abnormal loads;
- temporary and permanent haul-road construction;
- excavation and trenching;
- piling and vibration;
- minimum separation distances;
- effects on pipeline coating and cathodic protection;
- interaction with electrical cables;

- continued inspection and maintenance access;
- emergency planning and isolation;
- National Gas protective provisions and technical approval.

This is not merely a utility-protection issue. It goes directly to ground stability, construction safety, route feasibility and the consequences of ground failure or asset damage.

No haul-road or intrusive work should be authorised across or beside the pipeline unless the Applicant has demonstrated an engineering solution acceptable to National Gas, including the design loading, crossing construction, protection measures, minimum cover/separation, inspection access and emergency arrangements. Protective provisions are a control mechanism; they are not evidence that an acceptable crossing design presently exists.

16.17.3 A consolidated utility-conflict schedule is required

The Applicant should provide one schedule identifying every material buried asset affected by the Scheme. For each asset it should state:

- owner and operator;
- location and depth;
- easement or protected zone;
- proposed crossing or adjacent work;
- construction method;
- required consent;
- protective provision;
- emergency response;
- residual risk.

Without that schedule, the assessment remains fragmented between utilities, transport, ground conditions and DCO protective provisions.

16.18 Ground stability and geotechnical uncertainty

The Phase 1 assessment identifies potential chalk dissolution, shrink–swell clay, running sand, compressible alluvium or peat, saturated granular deposits and possible sulphate attack on buried concrete. These conditions may affect trench stability, settlement, foundation choice, drainage and reinstatement.

The point is not that the Scheme has been proved geotechnically impossible. It is that the final foundation and construction methods depend on ground conditions that have not yet been established across most of the Order Limits.

That uncertainty is material because geotechnical and environmental risks interact. Running sand, granular lenses and groundwater may destabilise excavations and create pollutant pathways. Chalk solution features may affect foundations and facilitate rapid groundwater movement. Compressible peat or alluvium may settle when disturbed or dewatered. Sulphate-bearing soils may constrain concrete specification.

A comprehensive site-specific ground investigation is therefore needed to establish:

- foundation suitability;
- trench and pit stability;
- groundwater control;
- dissolution and settlement risk;
- material aggressivity;
- reinstatement requirements;
- whether the authorised construction envelope is deliverable.

The Applicant cannot rely on post-consent geotechnical design while simultaneously using assumed ground conditions to conclude that environmental effects are insignificant.

16.19 Mineral sterilisation: a secondary but unresolved issue

The minerals issue should be treated proportionately. Norfolk County Council, as minerals planning authority, considers that the Applicant has appropriately assessed mineral safeguarding and that impacts are limited. It accepts that post-consent investigation may inform management and reuse of excavated material.

That position should be acknowledged.

Nevertheless, Appendix 16.2 is expressly a first-stage qualitative desk study. It identifies safeguarded sand and gravel beneath parts of Sites 4, 5 and 7 and CRC6–8, and accepts that the Scheme will sterilise some of those resources for its operational life.

Three limited concerns remain.

First, describing sterilisation for up to 60 years as merely ‘temporary’ understates its practical planning duration.

Second, the occurrence of alluvium, river terrace deposits and Leet Hill Sand and Gravel confirms that the superficial geology is heterogeneous and locally permeable. That is more significant to the hydrogeological case than to mineral extraction.

Third, excavated sand and gravel, contaminated spoil and HDD arisings require clear separation, testing, reuse and disposal controls. Appendix 16.2 accepts that HDD arisings may be mixed with support fluids and unsuitable for reuse.

Mineral sterilisation is therefore not advanced as a fatal flaw, but the Applicant must secure appropriate material-management controls and avoid using the minerals assessment to support an oversimplified geological model.

16.20 Chapters 9, 15 and 16 are not adequately reconciled

The assessment divides a single physical system between several chapters:

- groundwater and hydrology between Chapters 9 and 16;
- peat between Chapters 15 and 16;
- contamination and soil-resource protection between Chapters 15 and 16;
- construction-created pollution between Chapters 9, 16 and 18;
- piling effects between Chapters 10, 12 and 16.

That division has produced inconsistencies in study areas, receptor treatment, significance criteria and baseline descriptions.

Norfolk County Council’s LLFA identifies errors in the treatment of Hempnall Beck and the wider River Tas catchment. It also confirms that field drains connected to the watercourse network are ordinary watercourses, requiring correction of the baseline.

The LLFA further states that:

- the geology and hydrogeology are variable;
- no site-specific ground investigation or infiltration testing has occurred;
- it is impossible to determine whether the assumptions in the FRA, Chapter 9 and Chapter 16 are representative;
- hydrological information is more developed in Chapter 16 than in the FRA and drainage assessment.

It also identifies internally contradictory positions on infiltration: the Applicant says infiltration is generally not viable, but elsewhere assumes that runoff from inverter units will percolate through the ground, without identifying where overflow would discharge if infiltration fails.

These are not editorial matters. They concern the direction and movement of water, the viability of drainage and the pathways by which contamination could reach receptors.

The Applicant should provide one reconciled ground–water conceptual model covering every sub-site and cable corridor. It should align geology, groundwater, surface water, drainage, peat, land drains, aquifers, abstractions and construction pathways, and apply consistent receptor and significance criteria.

16.21 Embedded mitigation is insufficiently specific

The Applicant relies extensively on embedded mitigation, but the existence of a future plan does not establish that an effect has been assessed or that the plan will be capable of making an unacceptable location acceptable.

Each proposed measure must answer four questions:

1. What identified risk does it address?

2. Where is it secured in the DCO?
3. What objective approval standard applies?
4. What happens if the investigation shows that the authorised design is unacceptable?

The present framework does not answer those questions adequately.

The outstanding measures include:

- intrusive ground investigation;
- Phase 2 contamination assessment;
- PFAS testing;
- Foundation Works Risk Assessments;
- piling risk assessments;
- HDD hydrogeological assessments;
- UXO assessment;
- private-water-supply investigation and monitoring;
- unexpected-contamination protocols;
- pollution prevention;
- soil segregation;
- remediation;
- waste and spoil management;
- decommissioning controls.

Several are expressly deferred. The FWRA is to be undertaken after consent and informed by later investigation. The HDD assessment is required only ‘if required.’ PFAS and potential effects on crops may be considered in a later Phase 2 assessment.

This framework permits the Applicant to obtain consent before establishing whether the most intrusive authorised methods are environmentally acceptable. It lacks clear prohibition criteria where mitigation cannot remove the risk.

16.22 Post-consent deferral goes to the heart of environmental acceptability

The matters left for post-consent determination include:

- actual ground conditions;
- contaminant concentrations and extent;
- PFAS presence;
- foundation method;
- need for non-penetrative mounting;
- piling and deep-foundation risk;
- HDD feasibility and frac-out risk;
- remediation;
- private-supply protection;
- treatment and reuse of some mineral arisings.

Those matters are not construction detail. They determine whether:

- the Scheme can be constructed safely;

- driven or deep piles can be used;
- Sites 3 and 10 are developable as proposed;
- private water supplies are protected;
- the CRC7 and other HDD crossings are viable;
- avoidance, rerouting or deletion is required.

The Applicant's own assessment states that a later investigation may cause non-penetrative foundations to be selected and that later FWRAs will determine the acceptability of deep foundations.

That is an admission that the environmental acceptability of the authorised envelope remains unresolved. The DCO should not authorise works first and determine their fundamental feasibility later.

Post-consent investigation is legitimate where it verifies and refines an already demonstrated solution. It is not legitimate as the primary means of discovering whether the land can safely accommodate the authorised development.

The ExA has now independently framed the same issue in ExQ1. Q1.16.1 asks the Applicant to explain how sufficient baseline information exists to characterise ground conditions, groundwater and contamination receptors and support a conclusion of no likely significant effects despite the absence of application-stage intrusive ground investigation and the reliance on post-consent investigation. Q1.16.2 then asks why it is appropriate to conclude that no likely significant effects would arise where Foundation Works Risk Assessments, hydrogeological risk assessments, detailed investigations, design refinement and other mitigation are proposed to occur post-consent. These questions go directly to the distinction made above. The issue is not whether further detail will be produced later; it is whether the outstanding work merely refines an already demonstrated acceptable solution, or is needed to determine whether an acceptable solution exists at all.

On the Applicant's own documents, several of the deferred activities fall into the latter category. Intrusive investigation may determine whether piling is acceptable; the FWRA may determine whether a deep foundation can be used without creating a contaminant pathway; hydrogeological assessment may determine whether an HDD crossing is viable; and further investigation may determine whether contamination requires remediation, avoidance or a different foundation solution. Those are matters capable of changing the development solution, not merely its detailed implementation.

The new Permitted Preliminary Works Environmental Management Plan does not remove this concern. Where preliminary works include intrusive investigation or other ground-disturbing activities, the DCO must ensure that those activities cannot themselves create the groundwater, contamination or preferential-pathway effects which the later investigation and FWRA are intended to assess. Preliminary status cannot make an environmentally consequential intrusive activity environmentally neutral.

16.23 The significance conclusions are not credible

Chapter 16 concludes that residual effects are minor adverse or negligible and not significant. It consequently proposes no additional mitigation.

That conclusion is not credible because:

- the Chalk and Crag Principal Aquifers are high-value receptors;
- private supplies are incompletely characterised;
- the contamination-source inventory is constrained;
- former airfields and landfills remain uninvestigated;
- pathway evidence is based on assumed geology;
- peat hydrology is unresolved;
- driven piling and HDD remain within the design envelope;
- essential investigation and mitigation are deferred.

The assessment repeatedly converts uncertainty into low magnitude. The correct conclusion from an unidentified source, uncertain pathway and sensitive receptor is not automatically ‘not significant.’ It is that the evidence is insufficient to exclude a significant effect. That is also difficult to reconcile with NPPF policy P2(3), which requires adequate site-assessment information to be available to inform the determination of ground-condition and contamination risk.

BEPS does not have to prove that contamination will occur. The Applicant bears the evidential burden of providing enough information for the decision-maker to identify likely significant effects and determine whether they can reliably be avoided or mitigated.

That burden has not been discharged.

16.24 Cumulative and in-combination effects

The cumulative assessment must address effects on shared aquifers, catchments and construction receptors arising from:

- other solar NSIPs;
- Norwich to Tilbury;
- grid-connection and substation works;
- highway and utility works;
- other development affecting the same groundwater body;
- repeated HDD and dewatering;
- cumulative sediment and pollution risk;
- cumulative pressure on private and public water supplies;
- overlapping construction and remediation activity.

Natural England confirms that Fritton Common, Pulham Market Big Wood, Shotesham-Woodton Hornbeam Woods, Shotesham Common, Hedenham Wood and Tindall Wood Ditchingham SSSIs, together with two ancient woodlands, are hydrologically connected to the Order Limits. Its agreement with the Applicant’s conclusions depends on the proposed water-quality mitigation being properly secured.

Those links make catchment-level assessment material. An effect need not arise at the boundary of a designated site to contribute to downstream or groundwater deterioration.

The cumulative assessment should therefore identify common groundwater bodies and surface-water catchments, overlapping construction periods, shared private-supply receptors and combined pollution or dewatering pathways. A list of projects followed by a conclusion of no significant effect is insufficient.

16.25 Application of the mitigation hierarchy

Avoid

Avoidance must be considered before investigation, management or remediation.

The Applicant should:

- remove Site 3 if contamination, UXO and groundwater risks cannot be satisfactorily resolved;
- exclude development from former airfield hotspots and suspected disposal areas;
- avoid peat and its supporting hydrology;
- avoid private-water-supply protection areas;
- avoid granular aquifer deposits where practicable;
- reroute HDD and cable works where risk is unacceptable;
- avoid buried utilities and the National Gas pipeline protection zone.

Avoidance at Site 3 must mean more than micro-siting between unidentified hotspots. If the former airfield cannot be sufficiently characterised or safely developed, the relevant parcel must be removed.

Minimise

Where development remains, the Scheme should use:

- screw, ballasted or non-penetrative foundations;
- reduced excavation depths;
- closed-loop drilling-fluid systems;
- clean and contaminated soil separation;
- restricted dewatering;
- groundwater protection and monitoring;
- site-specific construction controls.

The most intrusive method should not remain available merely because a less harmful alternative may later be chosen.

Remediate

Any remediation strategy must identify:

- remediation objectives;
- applicable soil and groundwater criteria;
- regulator approval;
- validation and verification;
- treatment and disposal routes;
- responsibility and funding;
- long-term liability.

Remediation must be shown to be technically feasible before it is relied upon to support consent.

Monitor

Monitoring must include:

- pre-construction soil and groundwater baselines;
- private-supply quality and yield;
- construction-phase groundwater and surface water;
- peat water levels;
- post-construction recovery;
- trigger thresholds;
- immediate corrective action;
- reporting and regulator access.

The principal submission is:

The Applicant treats investigation and remediation as substitutes for avoidance. At former airfields, peat, sensitive aquifers and private-water-supply zones, avoidance must come first.

16.26 Overall conclusion

First, Chapter 16 is founded on a preliminary desk study, sparse historic borehole information and incomplete private-water-supply data. It does not provide a verified site-wide baseline.

Second, the contamination assessment is artificially constrained. It reduces complex former airfields to generic polygons, uses narrow search buffers and excludes RAF Tibenham by distance rather than hydrogeological evidence.

Third, the Scheme retains construction methods capable of creating or extending contaminant pathways, including driven piles, deep foundations, trenches, HDD, dewatering and concrete or grout works.

Fourth, the investigation and risk assessments needed to determine whether those methods are acceptable are deferred until after consent. Those assessments may determine whether parts of the Scheme require redesign, non-penetrative foundations, rerouting or deletion.

Fifth, the conclusion that every residual ground-condition effect is minor or negligible and not significant is therefore unsupported. It should be afforded no material weight.

The Applicant has not demonstrated that the authorised development can be constructed across the proposed Order Limits without unacceptable risk to groundwater, private water supplies, human health, peat, connected water environments and the long-term condition of the land.

16.27 Remedies sought

A. Pre-consent evidence

Before the Examination closes, the Applicant should be required to provide:

- targeted intrusive investigation of all material development areas;
- a Phase 2 contamination assessment;
- soil and groundwater PFAS testing at former airfields;
- parcel-specific conceptual site models;
- a complete private-water-supply survey;
- groundwater-level and quality monitoring;
- a reconciled Chapters 9, 15 and 16 ground–water model;
- a hydrogeological assessment of RAF Tibenham.

B. Design avoidance

The Scheme should be amended to secure:

- removal or substantial reduction of Site 3 where risks remain unresolved;
- exclusion zones around former airfield hotspots and disposal areas;
- avoidance of peat and its hydrological support zone;
- protection zones around private supplies;
- rerouting of HDD, cables and access works where necessary;
- prohibition of development in unresolved contamination areas.

C. Foundations and piling

The DCO should prohibit driven piling within:

- former airfields;
- known or suspected contaminated land;
- peat;
- Principal or Secondary A aquifer-sensitive areas;
- private-supply protection areas.

No deep or piled foundation should proceed without completed intrusive investigation and an approved FWRA. The Requirement must compel screw, ballasted or non-penetrative foundations where acceptable risk cannot be demonstrated.

D. HDD and trenchless works

Every material trenchless crossing should require:

- a mandatory crossing-specific hydrogeological risk assessment;

- an approved frac-out response plan;
- defined drilling-fluid specifications;
- groundwater and surface-water monitoring;
- controls on launch pits and dewatering;
- alternative construction or rerouting where risk is unacceptable.

The phrase ‘if required’ should be removed.

E. Private water supplies

The Applicant should be required to provide:

- a named receptor schedule;
- verified location and construction details;
- pre-construction baseline sampling;
- construction monitoring proportionate to risk;
- water-quality and yield trigger thresholds;
- immediate alternative drinking-water provision;
- remediation and compensation;
- post-construction monitoring for an appropriate period.

F. Contamination and remediation

The DCO should secure:

- an approved remediation strategy;
- regulator consultation;
- verification and completion reports;
- an unexpected-contamination protocol;
- contaminated-soil segregation and handling;
- lawful treatment and disposal;
- clear liability through construction, operation and decommissioning.

G. Peat

The Applicant should be required to provide:

- detailed peat survey and mapping;
- hydrological and thermal assessment;
- avoidance of peat and its supporting groundwater;
- prohibition on uncontrolled dewatering or drying;
- water-level monitoring;
- restoration standards and trigger-based remedial action.

H. Utilities and buried infrastructure

The Applicant should provide a consolidated utility-conflict plan and secure:

- National Gas technical acceptance of the design, loading, protection, construction method and access arrangements for every haul-road, cable or other works crossing or approaching the transmission pipeline;

- protection of sewers, rising mains, water mains and other pressurised assets;
- minimum separation and loading criteria;
- asset-access arrangements;
- pollution and emergency-response procedures.

Unless the outstanding evidence is supplied and these controls are secured, the affected parcels and works should be removed from the Order or development consent refused.

Reasons the application should be rejected

The application should be rejected because the Applicant has not demonstrated that the Scheme can be constructed, operated and decommissioned without unacceptable risks to groundwater, private water supplies, human health, peat, connected water environments and the long-term condition of the land.

Chapter 16 is founded on a Phase 1 desk study, historic mapping and sparse pre-existing borehole records rather than a comprehensive intrusive investigation of the final Order Limits. The Planning Inspectorate originally required ground conditions to be scoped in because the available data covered only a small proportion of the Scheme and significant effects could not be ruled out. That central deficiency remains.

The contamination baseline is incomplete. Only eight sources of potential contamination are mapped across this very large scheme, despite the presence of former RAF Hardwick, RAF Seething, historic landfills, pits and potentially infilled ground. RAF Tibenham is excluded merely because it lies approximately 1.4 km from the Order Limits, not because the Applicant has demonstrated that it is hydrogeologically irrelevant.

The former airfields are materially under-investigated. The Applicant itself identifies hydrocarbons, de-icers, metals, asbestos, PFAS, ammunition and bomb-storage areas, possible aircraft or ordnance disposal, radiological contamination and UXO. Yet it assigns generally low or very-low risks without targeted soil or groundwater investigation. The Environment Agency specifically required assessment of the Hardwick bomb-storage and disposal areas, while South Norfolk Council disputes the low human-health classification for former military land.

The hydrogeological model is also too uncertain. Much of the Scheme is underlain by Chalk or Crag Principal Aquifers, while the superficial geology includes alluvium, peat, river terrace deposits and water-bearing sand and gravel as well as Diamicton. Figure 16.4 provides only sparse borehole-derived estimates of Diamicton thickness; it does not prove a continuous protective clay barrier beneath each pile, trench, foundation or HDD crossing.

Private water supplies have not been reliably characterised. The underlying records lack verified locations, construction details, depths and abstraction horizons in many cases. The Applicant combines and infers information from local authority, BGS and Environment Agency datasets, then relies on assumptions that supplies draw from deeper Chalk beneath protective

Diamicton. That is not a receptor-specific assessment and cannot establish that nearby wells and boreholes are safe.

The Scheme retains construction methods capable of creating new contaminant pathways, including driven piles to approximately 4 m, deep foundations, trenches, HDD, pipe-jacking, dewatering, concrete and grout works. The Environment Agency warned that piling could create pathways into deeper groundwater and that HDD could release drilling fluids or mobilise contamination into controlled waters. South Norfolk Council separately objects to driven piling because of its noise and vibration effects.

The Applicant’s answer is to defer the decisive work until after consent. Intrusive investigation, Phase 2 contamination assessment, PFAS testing, Foundation Works Risk Assessments, piling assessments, HDD hydrogeological assessments, remediation design and private-water-supply protection are all left wholly or substantially to later stages. Those matters do not merely refine construction detail. They determine whether piling can be used, whether Sites 3 and 10 are developable, whether HDD crossings are viable, whether private supplies are protected and whether parts of the Scheme must be rerouted or removed.

Peat and hydrological connectivity remain similarly unresolved. CRC7 is proposed beneath Hempnall Beck, peat and Fritton Grange Meadows County Wildlife Site. Natural England confirms that several SSSIs and ancient woodlands are hydrologically connected to the Order Limits, while Norfolk County Council questions whether HDD is suitable in this sensitive setting. Passing beneath peat does not itself demonstrate that dewatering, drilling-fluid loss, settlement, cable heat or altered groundwater flow will not damage it.

Chapter 16 nevertheless concludes that all residual effects are minor adverse or negligible and not significant. That conclusion is not supported by a verified baseline, a complete source inventory, a reliable site-wide hydrogeological model or assessed worst-case construction methods. It depends instead on assumptions, generic controls and future plans.

The defect is therefore fundamental. The Applicant seeks consent for intrusive works across former military land, Principal Aquifers, private-water-supply areas, peat and hydrologically connected landscapes before establishing whether those works are environmentally acceptable. Post-consent investigation cannot retrospectively supply the evidence needed to justify consent.

Unless the missing investigations are completed, the affected parcels removed or redesigned, and enforceable controls imposed on piling, HDD, peat, contamination, private supplies and buried infrastructure, the Secretary of State cannot be satisfied that the Scheme’s likely significant effects have been properly identified or can reliably be avoided. The application should therefore be refused.

Chapter 17: Electromagnetic Fields

17.1 Executive summary and principal objection

Chapter 17 does not provide a project-specific environmental assessment of electromagnetic fields. It is a high-level human-exposure screening exercise based principally on generic cable data and public-exposure reference limits. It does not model the actual East Pye electrical system, does not quantify EMF from the BESS or substations, does not provide receptor-specific exposure calculations, and does not undertake a coherent ecological EMF assessment.

The ExA has now independently identified the same evidential issue. ExQ1 Q1.6.3 requires the Applicant to explain the extent to which its conclusions rely upon scheme-specific assessment, modelling and design information rather than generic industry data, standard assumptions or published reference values. It specifically requests identification of the scheme-specific cable-design assumptions, current loads, infrastructure arrangements and receptor locations used in Appendix 17.1, together with any field measurements, modelling or calculations undertaken specifically for East Pye. Those questions go directly to the principal deficiency identified in this chapter.

The Applicant has therefore not demonstrated that the Scheme’s extensive 132kV and 400kV infrastructure can operate for up to 60 years without significant effects on human health or ecology.

Five failures are central.

First, the assessment does not demonstrably comply with the Scoping Opinion. PINS required risks to both human and ecological receptors to be assessed, yet Chapter 17 confines its own methodology, significance assessment and residual-effects conclusion to human receptors.

Second, the assessment is generic rather than scheme-specific. It relies on ‘typical’ cable and overhead-line values from EMFS.info instead of modelling the actual East Pye cable circuits, loading, geometry, burial depths, substations, pylons and receptor locations.

Third, the human-health assessment is incomplete. Human sensitivity is reduced to ‘Medium’ because people routinely experience EMFs, without a proper distinction between children, vulnerable residents, users of public rights of way, workers or people with implanted medical devices.

Fourth, there is no coherent ecological EMF assessment. Bats, fish, white-clawed crayfish and aquatic invertebrates are absent from Chapter 17’s receptor methodology, significance matrix and cumulative assessment, despite the exceptional ecological sensitivity of the Order Limits and the confirmed white-clawed crayfish population in the River Tas.

Fifth, mitigation and control are inadequate. The Applicant relies principally on a 15m overhead-line setback, cable insulation and CE/UKCA marking, with no EMF management plan, no baseline monitoring, no post-energisation verification, no ecological thresholds and no clear DCO control over future equipment or design change.

The ‘Minor and Not Significant’ conclusion is therefore unsupported.

17.2 The infrastructure that must be assessed

East Pye is not a single underground cable. It is a dispersed generating, storage and grid-connection system extending across a very large Order Limits area.

The EMF-generating infrastructure includes extensive underground cable networks operating between 33kV and 400kV; existing and diverted 400kV overhead lines; new pylons associated with the National Grid connection; Project Substations and the National Grid Substation; transformers, switchgear, inverters and conversion units; the BESS and its power-conversion equipment; and cable joints, terminations and associated sealing-end infrastructure.

Norfolk County Council confirms that the Scheme includes a new 400kV National Grid Substation at Site 1B, diversion of the existing dual-circuit 400kV overhead line and construction of up to four new pylons close to Great Moulton. Chapter 17 itself states that the assessment concerns 132kV and 400kV underground cables, existing and diverted 400kV overhead cables, Project Substations, the National Grid Substation and transformers.

Yet the technical assessment reduces that complex system to generic examples of an underground cable and an overhead line. It does not demonstrate the combined field environment created by multiple circuits, substations, inverters, BESS equipment, terminations and overhead-line works operating together.

The assessment must address the complete authorised electrical system. Generic examples cannot establish the effects of the development actually proposed.

17.3 Failure to comply with the Scoping Opinion

The Planning Inspectorate expressly refused to scope EMF out. It did so because of uncertainty surrounding cable design and proximity to receptors. It required the ES to address risks to both human and ecological receptors, take account of relevant technical guidance, and identify design measures to avoid likely significant effects in accordance with the DECC Voluntary Code of Practice.

Chapter 17 does not meet that requirement. Its own response states that a ‘high-level EMF assessment pertaining to human health’ has been undertaken, while ecological effects, including fish, are said to be considered elsewhere in Chapter 8.

That division does not discharge the Scoping Opinion.

Chapter 17’s assessment methodology scopes in only impacts to human receptors during operation. Its sensitivity criteria are framed around people and equipment. Its magnitude criteria ask whether ‘a person’ would be exposed above or below human-health limits. Its residual-effects table contains only ‘Human receptors’. Its cumulative assessment is likewise confined to human exposure.

Ecological receptors are therefore absent from:

- the receptor classification;
- the magnitude criteria;
- the significance matrix;
- the assessment of likely effects;
- the residual-effects table;
- the cumulative assessment; and
- the mitigation conclusions.

A cross-reference to Chapter 8 is not enough. The Applicant must identify precisely where each ecological EMF receptor is assessed, what exposure metric is used, what field strength is predicted, what significance methodology is applied, and how those conclusions informed Chapter 17. No such reconciliation is provided.

The Scoping Opinion has therefore not been demonstrably satisfied.

17.4 Appendix 17.1 is only a high-level screening assessment

Appendix 17.1 confirms the limited nature of the exercise. Its stated purpose is to assess EMF from the Scheme ‘with respect to safe levels for human exposure’.

That is a compliance-screening exercise, not a comprehensive EIA.

A compliance screen asks whether generic field values are above or below general public reference levels. A lawful EIA must identify the actual sources, actual receptors, exposure pathways, magnitude, duration, cumulative effects, uncertainty and secured mitigation for the development being authorised.

Appendix 17.1 largely undertakes the former. It applies generic field values to generic infrastructure, compares them with ICNIRP reference levels, and assumes that transformers and substations will be less significant because they will be enclosed and CE/UKCA marked.

It does not provide:

- East Pye-specific source modelling;
- receptor coordinates;
- predicted values at actual homes or public rights of way;
- field contours around substations or the BESS;
- ecological exposure calculations;
- monitoring or validation proposals; or
- enforceable performance limits.

The Applicant has therefore presented a high-level compliance note as if it were a full environmental assessment.

17.5 No scheme-specific EMF model

Chapter 17 relies on ‘typical’ field values sourced from EMFS.info. The figures adopted are:

- 95 µT directly above a generic 400kV underground cable;
- approximately 81–82 µT beneath a generic 400kV overhead line;
- approximately 10–10.6 kV/m beneath that overhead line; and
- a reduction below 5 kV/m within 15m.

Those figures do not constitute a model of East Pye.

The assessment does not disclose:

- the actual conductor configuration;
- maximum operating current and power flow;
- cable spacing, phasing and bonding;
- burial depth at each relevant section;
- the number of circuits within each corridor;
- cable arrangements at joint bays and terminations;
- overhead-line geometry following diversion;
- pylon type and conductor clearance;
- conductor sag and topographic effects;
- simultaneous operation of adjacent sources;
- worst-case operating and fault conditions;
- receptor coordinates; or
- predicted electric and magnetic field values at those receptors.

The report also assumes that the Project Substations, National Grid Substation and transformers will produce lower fields because they are enclosed and CE/UKCA marked. That is not a calculation. Product conformity marking does not quantify the field environment around a major 400kV substation, BESS or transformer compound.

The Applicant has compared generic infrastructure against generic limits. It has not modelled the development for which consent is sought.

This is now a specific Examination issue rather than simply a BEPS criticism. ExQ1 Q1.6.3 asks the Applicant to identify all scheme-specific information actually used in Appendix 17.1, including cable-design assumptions, current loads, infrastructure arrangements and receptor locations, and separately to identify any East Pye-specific field measurements, modelling or calculations. The answer to that question is critical. If the principal numerical results continue to derive from generic published examples rather than the actual authorised cable configurations and maximum operating conditions, compliance of those generic examples cannot by itself establish the field environment created by East Pye.

17.6 The 400kV underground cable result lies close to the cited public reference level

Chapter 17 predicts a magnetic field of 95 µT at 1m above ground directly over the centreline of a 400kV underground cable. The reference level used is 100 µT.

That is only 5 µT, or 5%, below the cited reference level.

The chapter nevertheless classifies the magnitude as ‘Low’ and the effect as ‘Minor and Not Significant’. That conclusion is not self-proving merely because 95 is numerically less than 100.

The Applicant has not explained:

- what precise cable arrangement produces the 95 µT figure;
- whether it represents one circuit or multiple circuits;
- whether maximum current loading was used;
- whether the figure covers joint bays, terminations or cable bunching;
- whether design tolerances and future replacement equipment were included;
- whether adjoining circuits may combine to exceed the reference level;
- what values are predicted at each public right of way, workplace and dwelling; or
- why no setback is required from underground 400kV cables despite the narrow margin.

The assessment also states that underground cable magnetic fields fall to approximately zero within 20m, but provides no East Pye-specific contours to demonstrate that result for the actual cable configuration.

A generic result only 5% below the public reference level used in the assessment cannot support a categorical no-significant-effect conclusion without scheme-specific modelling and sensitivity testing.

17.7 Overhead-line electric fields are acknowledged to exceed the reference level

The Applicant accepts that electric fields beneath a 400kV overhead line may reach approximately 10–10.6 kV/m. That is more than twice the 5 kV/m public reference level used in the assessment.

The entire conclusion depends on a claimed reduction below 5 kV/m at 15m.

That reliance is inadequately evidenced. The assessment provides:

- no receptor-by-receptor calculation;
- no map demonstrating that the setback is achieved throughout the Order Limits;
- no precise predicted value at 15m;
- no allowance for different pylon geometry, loading, conductor sag or topography;
- no clear definition of whether the 15m is measured from the conductor, centreline, pylon or easement;
- no secured DCO provision excluding sensitive uses within that distance; and
- no monitoring requirement to verify compliance after energisation.

South Norfolk Council has expressly challenged these omissions. It requires calculations demonstrating that EMF will be reduced below 4 kV/m, actual predicted values at relevant receptors, evidence supporting the claimed 10 kV/m

and below-5 kV/m figures, and calculations supporting the conclusion that the magnitude is Low and the effect Minor.

Those requests go to the heart of the assessment. Until they are answered, the 15m setback is an unsupported assumption, not demonstrated mitigation.

17.8 No measured baseline and circular treatment of existing infrastructure

Chapter 17 contains no measured EMF baseline. It states that the assessment is limited to desk-based analysis, that no site surveys have been undertaken, and that none are proposed. The existing baseline is derived from aerial and street-view imagery.

That material cannot establish electric or magnetic field strength.

The chapter then assumes that the existing 400kV overhead infrastructure has no significant effect because it already forms part of the baseline. That reasoning is circular. An existing source remains part of the exposure environment. Its presence before the Scheme does not demonstrate that its effects are negligible, safe or incapable of combining with new infrastructure.

The Scheme will connect into and alter that existing network. It includes diversion of the existing dual-circuit 400kV overhead line, a new National Grid Substation and up to four new pylons near Great Moulton. New conductors, changed line geometry, altered clearances and future power flows may materially change the field environment. The Applicant cannot treat the existing infrastructure as harmless and then rely on it as the receiving system for the Scheme without measuring or modelling the resulting combined exposure.

Baseline measurements should therefore be undertaken at representative dwellings, public rights of way, workplaces and ecological crossing locations. The same locations should be tested after energisation, with enforceable action where predicted levels are exceeded. Without measured baseline and verification data, the assessment remains assumption-led.

17.9 Human receptor sensitivity is understated

Chapter 17 classifies humans, pacemakers and implanted cardiac defibrillators together as receptors of only medium sensitivity because people routinely experience varying EMFs within a regulated environment.

That classification assumes the conclusion it is meant to assess. Routine exposure to EMF does not establish that every person, exposure duration or receptor circumstance has the same sensitivity. Nor does it justify treating implanted medical devices as equivalent to the general population.

The methodology does not distinguish:

- children or vulnerable residents;
- prolonged residential exposure;
- people with implanted medical devices;

- workers operating close to substations, cables or overhead lines;
- repeated use of public rights of way above or beside cable corridors; or
- agricultural and maintenance workers exposed over the operational life of the Scheme.

South Norfolk Council has independently challenged the classification and asked the Applicant to justify why human health is treated as only medium sensitivity.

The objection is not that harm below regulatory limits has been proved. It is that the sensitivity classification is inadequately reasoned and materially affects the significance outcome. By assigning all human receptors a medium sensitivity before calculating exposure at actual locations, the Applicant suppresses the potential significance of effects in advance.

The revised NPPF reinforces the need for receptor sensitivity to be considered expressly. National decision-making policy P3 requires development proposals to take account of likely effects, including cumulative effects, on health and living conditions and requires consideration of the sensitivity of the surrounding population, expressly identifying groups which may be particularly vulnerable, including children and older people. The NPPF does not establish a separate EMF exposure standard, and EN-5 remains the principal national policy on power-frequency EMF, but P3 reinforces BEPS's narrower methodological point: potentially vulnerable receptors should not simply disappear within a single undifferentiated 'medium sensitivity' population category.

17.10 Sensitive human receptors and receptor mapping

Chapter 17 acknowledges that limited parts of CRC2, CRC4 and CRC6 lie close to residential dwellings and that public rights of way and permanent workplaces exist within the Order Limits. It nevertheless provides no receptor schedule, no mapped exposure results and no predicted electric or magnetic field value at any identified receptor.

A complete assessment should map and evaluate:

- dwellings near CRC2, CRC4 and CRC6;
- residential receptors around Site 1B and Great Moulton;
- public rights of way crossing or following cable corridors;
- permanent workplaces;
- locations regularly used by children;
- receptors involving implanted medical devices where relevant;
- maintenance workers; and
- agricultural land users.

This is particularly important at Great Moulton. Norfolk County Council records that the selected National Grid Substation location brings the substation and additional pylons closer to the village and raises wider health and mental-health concerns for affected residents.

The Applicant cannot answer those concerns by asserting a general 15m separation. It must identify each representative receptor, specify the distance and geometry used, and provide the predicted electric and magnetic field at that location under the worst authorised operating condition.

17.11 Substations, transformers, inverters and the BESS are not quantified

Chapter 17 assumes that the Project Substations, National Grid Substation and transformers will produce lower fields than cables and overhead lines because the equipment will be enclosed and CE or UKCA marked. Appendix 17.1 repeats that assumption.

That is not an EMF assessment.

CE and UKCA marking concern product conformity and electromagnetic compatibility. They do not quantify public or ecological exposure around a major substation or BESS compound. Nor do they demonstrate the combined fields from transformers, switchgear, busbars, inverters, converters, cabling and auxiliary equipment operating together.

The chapter provides no:

- equipment source inventory;
- transformer, inverter or switchgear ratings;
- maximum operating currents;
- field contours around the National Grid Substation or Project Substations;
- BESS-specific modelling;
- predicted values at nearby receptors;
- combined-source assessment; or
- performance control for replacement equipment.

The BESS is particularly poorly addressed. It contains substantial power-conversion and electrical equipment, yet no separate EMF prediction is given for the batteries, inverters, transformers or associated cabling. The Scheme may operate for 60 years, during which equipment may be replaced several times, but no DCO limit requires replacement plant to meet a defined EMF performance standard.

ISH1 has since confirmed that important elements of the electrical design remain unresolved. The Applicant explained that the 132kV and 400kV Project Substations retain flexibility between air-insulated switchgear and gas-insulated switchgear and that the final technology would be selected only at detailed-design stage, taking account of matters including procurement and equipment availability. The Applicant stated that whichever option represented the reasonable worst case for a particular environmental receptor had been assessed. The ExA nevertheless asked for further explanation of how the alternatives had been considered, and BEPS pointed out that the reasonable worst case may differ between receptors and species.

That clarification strengthens rather than removes the need for an auditable EMF envelope. Where two materially different electrical configurations remain available for consent, the Applicant should identify which configuration is the EMF reasonable worst case, the electrical assumptions on which that conclusion rests, and whether the selected detailed design is required to remain below that assessed envelope. A general assertion that the worst case has been assessed

cannot substitute for identifying the source configuration and predicted field values.

The Applicant should provide source inventories, equipment ratings, maximum current assumptions, EMF contour plans and receptor-specific predictions for every major electrical compound. Equivalent limits must apply to both original and replacement equipment.

17.12 Ecological EMF assessment is missing or fragmented

The project-wide evidence establishes an ecologically sensitive receiving environment and material baseline uncertainty.

South Norfolk Council records ten bat species within the Order Limits and describes the site as nationally important for its bat assemblage. It identifies widespread barbastelle activity and states that 12 barbastelle maternity-colony Core Sustenance Zones overlap the Order Limits. It also requests further surveys of adjacent woodlands.

Natural England retains an amber issue concerning protected-species licensing, including roosting bats, water vole, otter and great crested newts. The River Tas evidence identifies a confirmed breeding population of white-clawed crayfish at Saxlingham Thorpe and challenges the Applicant’s aquatic baseline.

Despite that context, Chapter 17 contains no ecological receptor methodology. Its sensitivity categories, magnitude criteria and residual-effects table concern only people and equipment. There are no ecological field thresholds, habitat-specific contours, watercourse-crossing calculations or species-specific significance criteria.

The issue is not that EMF harm to every species has already been established. The issue is that PINS expressly required ecological receptors to be assessed, yet the Applicant has converted uncertainty into a no-significant-effect position without providing the analysis needed to support it.

That requirement is also consistent with the current EN-5. Paragraph 2.9.47 expressly recognises that electric and magnetic fields can have direct and indirect effects not only on human health but on ‘aquatic and terrestrial organisms’. The policy therefore does not support treating EMF solely as a human public-exposure issue. At the same time, EN-5 paragraphs 2.10.11–2.10.13 make clear that compliance with the current public-exposure guidelines is central to the human-health mitigation framework. These are different questions: demonstrating compliance with human public-exposure guidance does not itself constitute an ecological effects assessment.

A cross-reference to Chapter 8 does not cure that defect unless the Applicant identifies the relevant ecological receptors, quantifies their exposure and shows how the ecological findings informed the EMF significance conclusion.

17.13 Barbastelle bats and other bat receptors

The bat baseline is exceptional. Ten species have been recorded; barbastelle activity is described as widespread; and South Norfolk Council identifies 12 maternity-colony Core Sustenance Zones overlapping the Order Limits. These are not incidental receptors.

The Scheme places underground cables, substations, overhead-line works and other electrical equipment across a landscape structured by woodland, hedgerows and established bat commuting and foraging routes. Yet Chapter 17 contains no mapping of electrical infrastructure against roosts, Core Sustenance Zones or flight corridors, and no calculation of the fields within those habitats.

Earlier BEPS scoping evidence expressly raised EMF effects on bats and requested that they be assessed. The final ES has not provided a transparent species-specific response.

The Applicant should be required to:

- map all high-voltage infrastructure against known and potential roosts, Core Sustenance Zones, woodland edges and commuting corridors;
- calculate maximum electric and magnetic fields within those habitats;
- review the relevant scientific evidence through a suitably qualified bat ecologist;
- explain whether effects can reliably be excluded for each relevant species; and
- apply avoidance, rerouting or increased separation where uncertainty remains.

BEPS does not need to prove that a particular field strength will repel bats. The burden lies on the Applicant to show, through competent evidence, that the Scheme will not materially affect nationally important bat assemblages.

17.14 Fish, white-clawed crayfish and aquatic receptors

The River Tas evidence identifies a confirmed breeding population of white-clawed crayfish at Saxlingham Thorpe. It records repeated confirmation between 2020 and 2022 and challenges the Applicant’s statement that no records were found within the relevant search area. It also identifies potential downstream pathways and a possible population in Hempnall Beck.

Norfolk County Council states that the absence of signs during a walkover cannot confirm absence and requires robust biosecurity, pollution prevention and sediment controls because of the species’ vulnerability.

Chapter 17 provides no aquatic EMF assessment. It does not identify:

- high-voltage crossings of the River Tas, Hempnall Beck or connected watercourses;
- the cable burial depth or circuit arrangement at those crossings;
- magnetic field strength within the bed, banks or water column;
- exposure of fish, lamprey, crayfish or aquatic invertebrates;

- combined fields where multiple circuits cross; or
- whether deeper burial, avoidance or route relocation is required.

The methodology is fundamentally mismatched to these receptors. A human public-exposure limit measured at 1m above land cannot determine effects on organisms living in or on a riverbed immediately above buried cables. The Applicant must undertake crossing-specific aquatic modelling and ecological assessment before no significant effect can be concluded.

17.15 Agricultural animals and land users

Earlier scoping representations also requested consideration of animals using cable corridors and land beneath overhead lines. Chapter 17 does not address them.

The Applicant should clarify:

- whether livestock grazing is proposed anywhere within the operational Scheme;
- the exposure of livestock and wildlife using cable corridors;
- potential effects at water troughs, fences and other conductive infrastructure;
- whether induced or contact-current risks arise in any relevant configuration; and
- the exposure of agricultural workers entering operational areas.

This is a secondary issue, but it cannot simply be omitted where agricultural land remains accessible or in active use around live electrical infrastructure.

17.16 Construction and decommissioning are improperly scoped out

Chapter 17 scopes construction and decommissioning out because the new cables will not be energised during those phases. That is too broad.

Construction will occur in proximity to existing energised 400kV infrastructure. It will also involve commissioning, testing and staged energisation. During operation there will be maintenance and replacement works around live equipment. At decommissioning, Chapter 17 itself states that the National Grid Substation and Grid Connection Infrastructure will remain in situ.

The assessment therefore fails to consider:

- works near existing live overhead lines;
- commissioning and energisation stages;
- phased operation;
- maintenance and equipment replacement;
- partial decommissioning while retained infrastructure remains live; and
- worker exposure during those activities.

The categorical statement that there will be no construction or decommissioning EMF effect is not supported by the Scheme description.

17.17 Inadequate cumulative assessment

Chapter 17 treats cumulative effects as materially relevant mainly where cables occupy the same trench. It identifies one development near Tivetshall St Margaret and then discusses exposure from household appliances. Appendix 17.1 similarly reduces cumulative exposure to generic source addition and domestic appliances.

That is artificial and incomplete.

The cumulative assessment should consider:

- simultaneous fields from multiple East Pye circuits;
- underground cables, overhead lines and substations affecting the same receptor;
- the existing 400kV network together with its proposed diversion;
- the National Grid Substation and Project Substations;
- BESS and inverter compounds;
- nearby solar, BESS and grid projects;
- ecological receptors affected at several crossings or infrastructure locations; and
- cumulative exposure at homes, workplaces and public rights of way.

Norfolk County Council identifies an exceptional concentration of proposed electricity infrastructure in South Norfolk, including Tasway Energy Park and Norwich to Tilbury, alongside East Pye and other major schemes.

The Applicant must therefore assess the actual project and regional infrastructure environment. Discussion of vacuum cleaners and household appliances does not answer the cumulative question raised by multiple 400kV assets, substations, BESS infrastructure and overlapping energy projects.

17.18 Mitigation is assumed rather than secured

The mitigation case is little more than a series of assumptions. Chapter 17 relies on a 15m setback from 400kV overhead lines, insulation and sheathing around underground cables, the conducting effect of surrounding soil, CE or UKCA marking, and the assertion that no other mitigation is required.

That is insufficient for a 60-year NSIP containing multiple 132kV and 400kV circuits, substations, transformers, inverters, BESS equipment and diverted overhead infrastructure.

The chapter contains no EMF management plan, no receptor-specific exposure limits, no route-specific separation standards for underground cables, no ecological mitigation, no validation testing, no monitoring regime, no trigger levels and no remedial procedure. It also contains no control over replacement equipment during the operational life of the Scheme.

The 15m overhead-line setback is especially weak. It is treated as the principal design response to electric fields that the Applicant accepts may exceed the 5 kV/m reference level directly beneath the line, yet Chapter 17 does not identify

an explicit DCO requirement securing that distance. Nor does it define how the 15m is to be measured or prevent later detailed design from reducing it.

The reliance on cable insulation and soil is equally generic. It addresses external electric fields from underground cables, but does not resolve magnetic fields, combined fields from adjacent circuits, joint bays, terminations or the 95 µT result directly above a generic 400kV cable.

CE and UKCA marking do not cure these deficiencies. They concern equipment conformity and electromagnetic compatibility; they do not impose project-wide receptor limits or demonstrate that the completed East Pye system will avoid significant human or ecological effects.

The mitigation hierarchy has not been applied. Avoidance and rerouting have not been tested against actual exposure results because those results have not been produced. The Applicant has assumed that generic compliance will remove the need for mitigation, rather than demonstrating that the Scheme has first avoided and then minimised effects.

17.19 Internal errors and inconsistencies undermine confidence

Chapter 17 contains material internal inconsistencies.

It states that human receptors are of medium sensitivity, but Table 17.7 records them as high sensitivity. The same table describes both the magnitude and the effect as ‘Minor’, even though the chapter’s own magnitude categories are High, Medium, Low and Negligible.

The text refers to ‘measured’ field strength, although no site measurements were undertaken and none are proposed. The assessment is expressly desk-based.

EMF effects are described as temporary because they last only for the duration of the Scheme, despite an operational period of up to 60 years. The chapter also says it assesses construction, operation and decommissioning, while construction and decommissioning are in fact scoped out.

There are also discrepancies between Chapter 17 and Appendix 17.1. The chapter refers to approximately 81 µT and 10 kV/m for overhead infrastructure, while the appendix gives approximately 82 µT and 10.6 kV/m.

These are not harmless drafting points where they affect receptor sensitivity, magnitude and the final residual-effects conclusion. They show that Table 17.7 does not reliably apply or reproduce the chapter’s stated methodology.

17.20 Consequences for the significance conclusion

The conclusion that EMF effects will be ‘Minor and Not Significant’ depends on a chain of unsupported assumptions.

It relies on generic source data, not a scheme-specific model; no measured baseline; no actual receptor calculations; an unexplained medium sensitivity

classification for human receptors; omission of ecological receptors; assumed rather than quantified emissions from substations and the BESS; an artificial cumulative assessment; and mitigation that is neither fully defined nor secured.

The Applicant has therefore not demonstrated that effects are minor. That evidential question is now expressly before the Examination through ExQ1 Q1.6.3

At most, it has shown that selected generic examples of underground and overhead cables may fall below selected human public-exposure reference levels under assumed conditions. That does not establish the effects of the complete East Pye electrical system at actual homes, public rights of way, workplaces, bat corridors or aquatic crossing points.

Nor does it establish that effects remain acceptable where multiple sources operate together, equipment is replaced, line geometry changes, or ecological receptors experience exposure in circumstances wholly different from the human reference case.

The ‘Minor and Not Significant’ conclusion is therefore not robust, reproducible or fit to support the EIA.

17.21 Remedies sought

The Applicant should be required to provide a consolidated, scheme-specific EMF model covering every cable circuit, overhead-line diversion, pylon, substation, transformer, inverter, BESS element, joint bay and termination under maximum operational conditions.

That assessment should provide receptor-specific electric and magnetic field results for homes, public rights of way, workplaces, sensitive community locations and ecological receptors.

The human-health assessment should be corrected to justify receptor sensitivity, distinguish vulnerable groups and implanted medical devices, and respond directly to South Norfolk Council’s request for calculations demonstrating levels below 4 kV/m and actual predicted values at identified receptors.

A complete ecological EMF assessment should be provided for bats, fish, white-clawed crayfish and aquatic invertebrates, supported by cable-crossing-specific modelling.

The cumulative assessment should cover all interacting East Pye sources, the existing 400kV network and diversion, substations, BESS and inverter compounds, and relevant nearby energy infrastructure.

The DCO should secure minimum setbacks, maximum EMF limits, routing and burial parameters, equipment-performance standards, controls on replacement equipment, and an EMF management plan.

Baseline and post-energisation monitoring should be required, with independent verification, reporting, trigger levels and enforceable remedial action.

Until that evidence is supplied and tested, Chapter 17’s conclusion of no significant adverse effect should be afforded no weight. If compliance and ecological safety cannot be demonstrated within the authorised design envelope, the relevant cable routes and electrical infrastructure must be relocated, redesigned or removed from the Scheme.

Summary: why the application should be refused on EMF grounds

The application should be refused because the Applicant has not demonstrated that East Pye Solar’s extensive electrical infrastructure can operate for up to 60 years without unacceptable effects on human health or ecology.

Chapter 17 is not a project-specific EMF assessment. It is a high-level human-exposure screening exercise based largely on generic ‘typical’ cable values and public reference limits. It does not model the actual East Pye system of multiple 132kV and 400kV cable circuits, diverted overhead lines, new pylons, substations, transformers, inverters, BESS equipment, joint bays and terminations.

The assessment also fails to comply demonstrably with the Scoping Opinion. PINS required risks to both human and ecological receptors to be assessed, yet Chapter 17 limits its methodology, significance assessment and residual-effects table to human receptors and merely directs ecological issues elsewhere.

Even the human-health case is incomplete. There is no measured baseline, no receptor-by-receptor modelling, no proper assessment of children, vulnerable residents, implanted medical devices, workers or repeated use of public rights of way. South Norfolk Council has specifically challenged the Applicant’s medium-sensitivity classification and requested actual calculations at receptor locations.

The numerical case is also weak. The Applicant predicts 95 µT directly above a generic 400kV underground cable against a 100 µT reference level, leaving only a 5% margin. It also accepts that electric fields beneath a 400kV overhead line may exceed the cited reference level by more than twofold, yet relies on an inadequately defined and apparently unsecured 15m setback.

Ecological effects remain unresolved. The Scheme affects a landscape of national importance for bats, including widespread barbastelle activity and overlapping maternity-colony Core Sustenance Zones, while the River Tas supports confirmed white-clawed crayfish. Chapter 17 contains no ecological EMF methodology, no species-specific thresholds, no cable-crossing modelling and no coherent assessment of aquatic or bat receptors.

Mitigation is assumed rather than secured. The Applicant relies on cable sheathing, conducting soil, CE/UKCA marking and a 15m setback, but provides no EMF management plan, no monitoring, no validation testing, no trigger levels, no ecological mitigation and no enforceable controls over replacement equipment during the 60-year lifetime of the Scheme.

The cumulative assessment is similarly inadequate. It largely confines cumulative effects to cables sharing a trench and then discusses household

appliances, while failing to assess the combined effects of multiple East Pye circuits, substations, BESS infrastructure, the existing 400kV network, the proposed diversion and nearby energy projects.

The Applicant has therefore not proved that EMF effects are minor or not significant. It has shown only that selected generic examples may fall below selected human reference levels under assumed conditions. That is not sufficient for a lawful or reliable EIA conclusion.

The application should be refused unless the Applicant first provides a complete scheme-specific EMF assessment, with actual receptor modelling, ecological analysis, cumulative assessment, secured limits and independent monitoring. If the authorised design envelope cannot demonstrate compliance and ecological safety, the affected cable routes, substations and overhead infrastructure must be redesigned, relocated or removed.

Chapter 18: Other Environmental Matters

18.1 Introduction and principal objection

The Applicant states that the purpose of Chapter 18 is to collate environmental topics which, in its view, do not warrant individual ES chapters because of either the brevity of the assessment or the asserted absence of likely significant effects. It covers Major Accidents and Disasters, Telecommunications/Utilities/Television, Glint and Glare, Waste and Materials and a Human Health Summary Statement. More significantly, paragraph 18.1.7 states that the majority of assessments in the chapter do not follow the methodology in ES Chapter 2, but instead use alternative, generally higher-level methodologies.

BEPS does not contend that every one of these matters necessarily required a separate ES chapter. The issue is whether the form and depth of assessment adopted are capable of supporting the conclusions reached.

That question is particularly important here because Chapter 18 combines matters of very different character and consequence: a National Gas high-pressure transmission pipeline; extensive existing electricity, water, sewerage and communications networks; existing and proposed 400 kV transmission infrastructure; BESS fire and environmental containment; glint and glare affecting homes, roads and six aviation sites; waste generated across a 60-year operational life and eventual decommissioning; and multiple pathways relevant to human health.

The final application does contain materially more information than the PEIR. However, important conclusions still depend upon future detailed design, future surveys, future consultation, future asset-owner approvals, management plans and protective provisions. In several cases the relevant statutory undertaker has itself identified matters that remained unresolved when the application entered Examination. The objection is that, in places, Chapter 18’s conclusion of no significant effect is more certain than the evidence on which that conclusion depends.

The principal issues addressed below are the compatibility of the Scheme with existing utilities and nationally important infrastructure; major accident and BESS interactions; glint and glare affecting residential, highway and aviation receptors; waste and materials over the complete project lifecycle; human health; combined effects between these topics; and, critically, whether the mitigation relied upon is sufficiently defined, agreed and secured.

18.2 Scope, methodology and the Scoping Opinion

In its Scoping Opinion, PINS did not require every matter now collected in Chapter 18 to become a standalone ES chapter, and BEPS does not seek retrospectively to re-open those scoping decisions.

For Major Accidents and Disasters, PINS agreed that the matters identified by the Applicant could be scoped out ‘on the basis of the information presented’. It did not require plume modelling or a quantified major-accident assessment. It did,

however, expect the Outline Battery Safety Management Plan to set out information on BESS fire risk and relevant mitigation, including firefighting and environmental containment. PINS separately required further consideration of the identified moderate-to-high UXO risk.

The position was materially different for utilities. PINS expressly found that insufficient evidence had been provided to scope out telecommunications, television reception and utilities. It required the ES to identify receptors through consultation and desk study; to locate and describe any necessary diversions; to identify mitigation; and to assess impacts where significant effects could arise. It specifically drew the Applicant's attention to representations from National Highways, HSE, Cadent and Anglian Water.

For glint and glare, PINS accepted an Other Environmental Matters summary supported by a detailed technical appendix rather than a standalone chapter. That acceptance was subject to the assessment considering construction and decommissioning as well as operation, explaining the methodology and likely extent of effects, identifying the use of professional judgement and identifying any significant effects in Chapter 18 itself.

PINS was not content to scope Waste and Materials out. It required assessment across all phases, including a detailed description of waste streams, expected quantities and appropriate monitoring. It likewise declined to permit minerals simply to be dismissed and required assessment of the loss of access to mineral resources over the development's lifetime. Lighting did not require a standalone assessment, but PINS expressly stated that it was not to be scoped out entirely and had to be considered in the relevant aspect chapters.

For human health, PINS accepted that a standalone chapter was unnecessary. That decision did not remove health from the EIA. PINS required the ES clearly to identify potential human-health impacts during construction, operation and decommissioning and to cross-reference their assessment in, for example, Landscape and Visual, Air Quality and Water Environment.

Two overarching parts of the Scoping Opinion are especially important. First, PINS stated that its Opinion was based upon the information then presented and that the ES must explain and justify matters ultimately scoped out. Secondly, PINS required effort to be made to agree mitigation with relevant consultation bodies and for the application to make clear how mitigation would be secured through the DCO or another legal mechanism. Where design flexibility remained, PINS required the maximum parameters relied upon in the assessment to be identified and justified.

The correct question for the Examination is therefore not whether the Applicant has reproduced the Scoping Report. It is:

Has the final application supplied sufficient, internally consistent and secured evidence to justify the conclusions now reached?

An earlier scoping decision cannot substitute for the final evidence where the design has developed, new information has emerged or the statutory undertaker responsible for affected infrastructure has not yet accepted the proposed interface.

Part A – Utilities and Infrastructure

18.3 Utilities and existing infrastructure: overview

The final ES now demonstrates the scale of the infrastructure constraint much more clearly than the PEIR did. Chapter 18 identifies multiple existing cables, pipelines and pylons within the Order Limits. Table 18.4 records extensive UK Power Networks overhead and underground assets, National Grid transmission infrastructure, Openreach, Gigaclear and Broadband for Rural North telecommunications assets, Cadent gas infrastructure, National Gas Transmission infrastructure and Anglian Water water, foul sewer, rising-main and final-effluent assets.

Two constraints are particularly substantial. Paragraph 18.3.8 confirms that the National Gas high-pressure transmission pipeline passes through Sub-sites 5A, 5B, 7B, 7E and 7F and CRC7. Paragraph 18.3.9 confirms that an existing dual-circuit 400 kV overhead transmission line runs through Site 1, with five existing pylons within the site. The Scheme itself additionally requires new high-voltage cables, project substations, a new National Grid Substation and up to three new pylons, with a maximum height of 61 metres.

That is a materially different proposition from simply demonstrating that utilities have been ‘mapped’. PINS required the consequences of interactions and diversions to be assessed where significant effects could arise.

Indeed, Chapter 18 itself accepts at paragraph 18.3.13 that, before mitigation, construction has the potential to cause damage to existing infrastructure, including ‘utilities failure’, and localised service disruption. The conclusion of no likely significant effect is then reached principally through reliance upon measures to be implemented later: detailed-design avoidance, provider consultation, ground-penetrating radar, protection zones, trenching or HDD at crossings, safe-working procedures and protective provisions.

Some of those controls are entirely appropriate. The difficulty is the sequence of reasoning. Chapter 18 repeatedly relies on detailed design to establish precisely how infrastructure will be avoided or crossed, while simultaneously relying on that future avoidance to conclude now that the effect is not significant. Paragraph 18.3.16 itself qualifies both protected-zone avoidance and infrastructure offsets with the words ‘where practicable’.

For a project whose Order Limits contain a national gas transmission main, an existing 400 kV transmission corridor and extensive local utilities, identifying an asset is only the first step. The Applicant must demonstrate that its authorised works can coexist with it on terms acceptable to the relevant undertaker and that the necessary protection is secured.

18.4 National Gas Transmission pipeline

The National Gas Transmission pipeline is the clearest illustration of the distinction between identification and resolution. The final ES now acknowledges that the high-pressure pipeline crosses Sub-sites 5A, 5B, 7B, 7E, 7F and CRC7.

That correction is important. But the pipeline is not simply another buried service.

In its formal scoping response, National Gas Transmission identified FM05 Yelverton–Stowmarket, associated freehold interests, cathodic-protection groundbeds and ancillary apparatus within or close to the Scheme. NGT explained that its existing easements provide continuing rights of access and restrict permanent and temporary structures, alteration of ground levels and storage of materials within the easement strip. It also expressly identified PV arrays, BESS, high-voltage cable crossings and parallelism and high-voltage pylon parallelism as installations capable of interfering with its cathodic-protection system. Such installations require assessment and approval by NGT and, where necessary, control measures.

The August 2026 NPPF now provides additional national decision-making policy directly relevant to this interface. Policy P5 addresses development involving or occurring within consultation zones around major-accident-hazard pipelines. It provides that development within such areas should only be supported where, following consultation with the relevant bodies, it is clear that the development will be safe for occupiers and users and will not impose constraints upon operation of the facility to which the consultation zone relates. The NPPF is not the primary policy framework for this NSIP, but this current national decision-making policy reinforces the need to demonstrate compatibility with the transmission pipeline rather than merely identify it on a plan or defer the engineering solution to protective provisions.

This makes the interface significantly wider than the risk of an excavator accidentally striking a pipe. The relevant questions include electrical interference, access, loading, levels, crossings, piling and excavation, construction compounds and roads, vegetation management and the ability of NGT to inspect, repair and renew its apparatus throughout the lifetime of the Scheme.

At Relevant Representation stage NGT maintained an objection pending adequate protection of its assets and interests. That position is important evidence of the maturity of the application at submission. Since then, the July 2026 Revision 2 draft DCO has incorporated a dedicated Part 5 of Schedule 14 for the protection of National Gas, including provisions requiring plans to be submitted and approved before specified works commence. That is a material improvement and BEPS does not suggest otherwise.

It does not, however, dispose of the technical issue. The Applicant's own *Potential Main Issues for Examination* identifies an Electrical Impact Assessment relating to the high-pressure gas main as work still requiring the pre-construction parameters, impact analyses, separation calculations, risk assessments and agreed mitigation measures, together with written confirmation from NGT that the assessment is satisfactory.

That admission is significant. Chapter 18 concludes at paragraph 18.3.28 that no adverse likely significant effects on utilities are expected during construction, yet the Applicant itself recognises that the electrical interaction with the national gas transmission asset still requires technical assessment and NGT confirmation.

The ExA should therefore require the Applicant to demonstrate, rather than assume, compatibility between FM05 and the final solar layout, high-voltage cables, roads, crossings, compounds and other electrical infrastructure. Any necessary exclusion zones, crossing arrangements, cathodic-protection measures and access requirements should be identifiable on the relevant plans and secured before the affected works can commence.

Chapter 18 identifies the pipeline constraint but does not itself demonstrate that all construction and operational interfaces have been resolved. The separate Chapter 16 objection addresses the Site 7 haul-road crossing, which the Applicant was unable to explain technically at ISH1 and agreed to take away for further consideration.

18.5 NGET overhead lines, substation land and connection uncertainty

A separate issue arises in relation to National Grid Electricity Transmission's existing transmission infrastructure and the proposed new National Grid Substation.

Chapter 18 records an existing dual-circuit 400 kV overhead line running through Site 1 with five existing pylons. The Scheme proposes to divert that line into the new National Grid Substation, remove part of the existing alignment and introduce up to three new pylons. Paragraphs 18.3.24–25 describe a ‘double circuit turn in solution’ which the Applicant says will improve operational efficiency and resilience.

NGET's position demonstrates why that description should not be treated as a finally settled engineering solution. Its Relevant Representation identifies its 4YM 400 kV Bramford–Norwich Main infrastructure and associated land interests within or close to the Order Limits and requires protection of access, safety clearances and its ability to inspect, maintain, renew and replace its apparatus. It also requires appropriate protective provisions where compulsory-acquisition or other DCO powers affect its interests.

There is then a distinct grid-connection issue. The Applicant has secured Gate 2 prioritisation for the solar component, but the BESS has Gate 1 prioritisation and no confirmed connection date. The Applicant's own Grid Connection Statement records this distinction.

More importantly, the detailed configuration is not settled. The Grid Connection Statement states that discussions with NGET remain ongoing concerning both the configuration and layout of the new National Grid Substation and the reconfiguration of the overhead transmission line. Although NGET had confirmed that sufficient physical space exists in the proposed area, the illustrative material remained subject to revision as micrositing and orientation continued to be discussed.

NGET's Relevant Representation goes further. It explains that obtaining DCO consent for a National Grid Substation does not itself impose an obligation on NGET to provide the Applicant's final connection through the consented

configuration. The ultimate transmission solution remains affected by the wider connections-reform process and NGET's network requirements.

That distinction matters. Chapter 18 assesses the environmental and utility consequences of a particular double-circuit turn-in arrangement. It should not be assumed that consent to construct that arrangement is the same thing as confirmation by NGET that this will be the arrangement ultimately required.

The ExA should therefore distinguish between three propositions: the existence of a contractual grid position; the grant of planning powers for a new substation and associated works; and NGET's eventual technical acceptance and delivery of the detailed transmission solution. The first does not automatically establish the latter two.

BEPS accordingly requests that the examination establish precisely which aspects of Work Nos. 4 and 5 are agreed with NGET; what design parameters remain capable of change; whether any such change remains within the environmental envelope assessed; and how NGET's existing apparatus, land rights and continuous access will be protected.

18.6 Other utilities

18.6.1 Water and sewerage infrastructure

Chapter 18 identifies an extensive Anglian Water network within the Order Limits. Table 18.4 records foul sewers, foul sewer rising mains, final-effluent infrastructure and water mains across numerous sheets of the Utilities Plan. PINS specifically drew the Applicant's attention to Anglian Water when refusing to permit utilities to be scoped out.

The relevant issue is not simply whether those pipes appear on Figure 18.1. Cable trenching, HDD, access construction, piling and other excavation must be demonstrated to be compatible with those assets, including required stand-offs and continued maintenance access. Where crossings or diversions are necessary, PINS required them to be located and described in the ES together with the necessary mitigation.

The conclusion of no significant effect should therefore be tied to identified crossings and enforceable asset-protection controls, rather than to an assumption that detailed design will subsequently avoid any conflict.

18.6.2 Gas distribution infrastructure

In addition to the NGT transmission main, Chapter 18 records both low-pressure and intermediate-pressure Cadent Gas infrastructure within the Order Limits. PINS specifically identified Cadent's representations as requiring attention.

The same principle applies. Future liaison and safe-working procedures are necessary controls, but they are not substitutes for identifying where authorised works intersect protected apparatus and what restrictions follow. Any required consent within easement strips, crossing design or stand-off requirement should be secured before works in the relevant locality commence.

18.6.3 Telecommunications and fibre

The Scheme also intersects a dense communications network. Chapter 18 identifies Openreach overhead and underground lines across most of the Scheme, Gigaclear infrastructure on multiple sites and Broadband for Rural North infrastructure in the northern part of the Scheme.

This issue is particularly concrete at Site 1. Paragraph 18.3.19 confirms that diversion of the existing 400 kV transmission line will require fibre-optic cables to be rerouted or extended. Yet the same paragraph states that the ‘full details’ of the necessary telecommunications diversions will be defined only at detailed-design stage, followed by further consultation with affected third parties.

That sits uneasily with PINS's specific direction that, where utility or telecommunications diversions are required, they should be ‘located and described in the ES’ together with required mitigation.

BEPS therefore considers that known diversions should not disappear into a generic post-consent design process. At minimum, the examination should establish their location, reasonable worst-case form, affected operator, environmental implications and mechanism for approval.

18.6.4 Utility diversions and crossings

Chapter 18 relies extensively on detailed-design avoidance, ground-penetrating radar, trenching and HDD where crossings are required. These are sensible construction techniques, but the environmental assessment must distinguish between an unknown buried service which might be encountered and a known strategic utility which the Scheme is already expected to cross or alter.

The Scheme includes a substantial underground cable network of up to 400 kV, internal roads, construction compounds and extensive engineering works. Where these intersect known gas, electricity, water, sewerage or telecommunications infrastructure, the crossing is part of the Scheme's engineering interface and should be assessed as such.

The Applicant's formulation that infrastructure will be located outside protected zones and provided with adequate buffers ‘where practicable’ is particularly important. If avoidance is not practicable, the ES and DCO must identify what happens instead. ‘Where practicable’ cannot itself function as mitigation.

Any relevant railway interface should likewise be explicitly addressed in the appropriate chapter or infrastructure assessment rather than lost between topics. The point is not to classify the railway as a utility, but to ensure that any cable, drainage, construction or access interaction with strategic rail infrastructure has an identifiable assessment and securing mechanism.

18.6.5 Security of protective measures

The ultimate issue is the status of the mitigation on which Chapter 18 relies. The July 2026 draft DCO now contains extensive protective provisions for NGET, National Gas, Anglian Water, Cadent and electronic communications operators.

That is relevant and should be acknowledged. But the presence of protective provisions in a draft Order is not, by itself, proof that every physical interaction has been technically resolved. PINS expressly required effort to agree mitigation with consultation bodies and clarity as to how it would be legally secured.

The examination should therefore establish, for each material statutory-undertaker interface: what infrastructure is affected; where the interaction occurs; whether avoidance is possible; what crossing, separation or protection is required; whether the undertaker agrees; and which precise DCO provision, Requirement, protective provision or separate agreement secures the solution.

That exercise is particularly important where Chapter 18 reaches a conclusion of no likely significant effect because subsequent detailed design and third-party agreement are expected to prevent the effect occurring.

The evidential weakness is not that mitigation will occur after consent. Detailed design necessarily does so in many NSIPs. It is that a conclusion of environmental insignificance should not depend upon an unresolved technical interface without an adequate envelope and an enforceable mechanism capable of ensuring the assumed outcome.

Part B – Major Accidents, Disasters and BESS Safety

18.7 Correct position on major accidents and disasters

At Scoping, the Planning Inspectorate did not require the Applicant to prepare a standalone Major Accidents and Disasters chapter, nor a quantified risk assessment, toxic-plume modelling or a particular form of BESS consequence model.

At Scoping Opinion ID 3.3.1, PINS considered the accident and disaster scenarios identified in the Scoping Report and agreed that they could be scoped out of the ES ‘on the basis of the information presented’. Its express qualification concerned battery safety. PINS noted the proposed Outline Battery Safety Management Plan and stated that information on BESS fire risk and relevant mitigation, including ‘fire-fighting and containment measures on the environment’, should be set out in that document. PINS separately agreed that BESS-fire emissions could be scoped out of the Air Quality assessment on the basis then advanced by the Applicant, including a proposed minimum 100 m separation from sensitive human receptors and the fire-safety measures to be secured through the oBSMP.

The final application submits a substantial, 161-page oBSMP containing a BESS fire-emissions assessment, fire and explosion controls, emergency-response principles, firefighting-water requirements and environmental-containment measures. BEPS therefore does not maintain the earlier consultation-stage criticism that a substantive battery-safety plan is absent. The final oBSMP substantially responds to the particular information PINS expected to see at application stage.

However, the Scoping Opinion was expressly based upon the information available at the time. The relevant question now is whether the final design envelope and the controls secured through the DCO provide sufficient certainty to support the continued conclusion that significant major-accident effects are unlikely. That question is important because several of the matters on which the oBSMP ultimately relies are not yet demonstrated for the actual BESS that will be constructed.

BEPS's objection is therefore deliberately narrower than its earlier PEIR objection. It is not that the Applicant has failed to prepare a battery-safety framework. It is that a material part of the system-specific safety case remains deferred until after consent.

18.8 BESS safety: improvement since consultation, but substantial matters remain deferred

The oBSMP is a significant improvement. It expressly recognises fire and explosion, chemical, electrical, stranded-energy and physical hazards; provides for battery-management, fire and gas detection and 24-hour remote monitoring; enables remote shutdown; sets principles for enclosure separation, access and firefighting; requires substantial onsite firefighting-water provision; provides a containment and drainage strategy; addresses defective and fire-damaged batteries; includes emergency-response requirements; and incorporates a BESS fire plume assessment. It also requires the selected system to undergo large-scale fire testing or equivalent full-scale destruction testing, with site-specific consequence modelling used to validate separation and demonstrate that loss can be confined to a single enclosure.

The oBSMP also anticipates a further suite of system-specific safety studies. These include HAZID and HAZOP, Fire Risk Analysis, Explosion Risk Analysis and DSEAR work, together with FMEA or LOPA and the selected-system fire and explosion testing. Those are appropriate controls. Their significance for the Examination, however, is that they have not yet been performed for the equipment that East Pye would actually install.

The underlying reason is clear from the oBSMP itself. The current concept is based on approximately 5 MWh BESS units, but the ‘exact technology and system chemistry type is still to be determined’. Lithium-ion technology is proposed, with NMC and LFP identified as possible chemistries. The plume assessment adopts an LFP concept, while the manufacturer, final enclosure architecture and final detailed arrangement remain to be selected.

The suppression philosophy is likewise not completely fixed. The oBSMP permits different approaches according to the selected system. A walk-in enclosure would require automatic water suppression; another system might incorporate different active suppression; alternatively, a system could be designed to burn out safely, provided full-scale testing demonstrates that the incident remains confined to one enclosure. The choice has obvious implications for water demand, stranded energy, thermal propagation, emergency-service intervention and firewater production.

The final detailed BSMP, selected-system LSFT evidence, site-specific consequence modelling, final layout and separation distances, final suppression strategy and system-specific ERP are therefore all future documents or future design-stage evidence. The oBSMP itself confirms that the final BSMP will be prepared before commencement of BESS construction and approved by the relevant planning authority in consultation with Norfolk Fire and Rescue Service and the Environment Agency.

The ExA has now expressly required the Applicant to confront this dependency. ExQ1 Q1.6.4 asks for a schedule identifying every future assessment, modelling exercise, test, survey, consultation activity, approval or management plan relied upon in reaching the present conclusions on major accidents, BESS safety, fire risk, pollution prevention and emergency response. For each item, the Applicant must explain its purpose, whether it is required to confirm the acceptability of the development, how it will be secured, what happens if its outcome differs materially from current assumptions, and why the ExA can nevertheless reach an informed conclusion before it has been completed.

That question goes to the central distinction in this section. The issue is not whether further safety work is expected at detailed design; that is normal. It is whether the outstanding work merely optimises an already demonstrated safe design or is required to establish whether the selected battery system, enclosure, separation, suppression philosophy, plume behaviour and firewater strategy are acceptable at all. Where the result of LSFT, propagation testing, consequence modelling or HAZID could require a different layout, greater separation, different containment or different emergency response, it is capable of determining the acceptable design envelope rather than merely refining it.

That is not an argument that detailed design cannot occur post-consent. It is an argument about the strength of the present conclusion. The oBSMP is an outline safety framework, not a completed manufacturer-specific safety case.

BEPS therefore submits that the DCO control must operate as a genuine pre-construction safety gateway. The final BSMP should not merely be ‘substantially in accordance’ with generic principles: it must demonstrate, for the selected technology, chemistry and enclosure, satisfactory LSFT/full-scale evidence, propagation control, final separation, fire and explosion consequences, final plume behaviour, firefighting and containment capacity, emergency access and a completed ERP agreed following consultation with NFRS and the Environment Agency. If the selected system cannot satisfy those parameters, the DCO should not permit BESS construction.

18.9 BESS plume modelling and off-site consequences

The final application now contains precisely the type of consequence evidence that was absent at consultation stage. Importantly, its results identify an off-site effect. This is not a hypothetical scenario advanced by BEPS; it arises from the Applicant's own modelling.

The BESS Fire – Emissions to Air Risk Assessment considers pollutants including hydrogen fluoride and carbon monoxide. It finds no exceedance of the relevant

Air Quality Assessment Levels at modelled residential receptors. It does not, however, find an absence of exposure beyond the BESS boundary. Under the sensitivity scenario, exceedances are predicted along three named public rights of way: Tivetshall St Margaret FP3 and Great Moulton Restricted Bridleways 18 and 19.

The maximum results at Tivetshall St Margaret FP3 are material. The predicted one-hour HF concentration is 1,024.5 µg/m³, equivalent to 125% of the relevant one-hour AQAL. The four-hour HF concentration reaches 1,599.3 µg/m³, or 196%. At eight hours, CO reaches 17,629 µg/m³, or 176% of its AQAL, while HF reaches 2,305.8 µg/m³, or 282%. Further exceedances occur at points on the Great Moulton bridleways. The Applicant emphasises that the eight-hour calculation is deliberately worst-case because it assumes peak emissions continuing for the full eight hours. That qualification is relevant, but it does not remove the fact that the Applicant has identified a credible emergency-management requirement beyond the compound boundary.

The result must also be understood in light of the modelling assumptions. The emissions source is derived from GridSolv fire testing of an approximately 1.5 MWh unit. East Pye's intended unit size is approximately 5 MWh; the sensitivity assessment therefore doubles the derived pollutant concentrations to represent the larger unit, while recognising that the relationship is not necessarily linear. The actual selected East Pye BESS has not yet been tested because it has not yet been selected.

The analysis also assumes complete propagation within one initiating enclosure but no propagation beyond that enclosure. That second assumption depends on future LSFT and site-specific consequence modelling establishing adequate equipment spacing for the final BESS. In other words, a central boundary condition of the present plume assessment is itself one of the matters still to be demonstrated at detailed design.

The assessment considers sensitive human receptors within a 1 km study area around the BESS, with the illustrative layout used to select six worst-case initiating locations. The Applicant's final design may remain safely within the modelled envelope, but that must be demonstrated once the actual unit, enclosure configuration, emission characteristics and layout are known. The present modelling should not be treated as manufacturer-specific validation.

The proposed mitigation for PRoW users particularly requires examination. The oBSMP provides that the operator will determine wind direction during a fire and ‘seek to close’ a PRoW or bridleway where necessary. It also proposes notification of potentially affected residents with advice to remain indoors and close windows. This raises an operational question that cannot be answered by dispersion modelling: how quickly can a public route actually be closed once an incident has commenced, by whom, and how are persons already on the route warned or removed?

That is especially relevant because the closest PRoW is approximately 50 m from the BESS and the Applicant's own modelling identifies Great Moulton and Tivetshall routes as potential exceedance locations. The final ERP should therefore identify closure authority, trigger levels, communications, physical

closure arrangements, warning of route users already within the affected area and coordination with the emergency services and highway authority.

The appropriate conclusion is that the Applicant's own modelling establishes a credible off-site emergency-management consequence, while the final technology-specific modelling and the operational mechanism for managing that consequence remain deferred.

18.10 Firewater, drainage and groundwater protection

The oBSMP contains substantial firewater controls. It commits to at least two firefighting-water tanks of not less than 230,000 litres each, capable of providing 1,900 litres per minute for four hours. The BESS drainage is intended to incorporate an impermeable membrane and automatic isolation activated by the fire alarm, with manual override as a secondary control. The final drainage design is intended to accommodate the 1-in-100-year rainfall event plus 45% climate allowance together with the 456 m³ firefighting-water volume. Retained water is to be sampled before release; contaminated water would instead be removed by tanker to an appropriately permitted facility.

Those are important commitments. The Environment Agency's Relevant Representation of 4 June 2026 nevertheless demonstrates why the final design cannot be treated as a formality. In EA20–EA25, the Agency raises outstanding questions not only about BESS firewater but also about firewater generated at the 132 kV and 400 kV Project Substations and National Grid Substation.

EA20 seeks sealed substation drainage capable of retaining a reasonable worst-case combination of firewater and rainfall, automatic isolation with manual backup, bunding of polluting plant such as oil-filled transformers and tanker removal of contaminated water. EA25 similarly asks the Applicant to make explicit that the entirety of the relevant BESS and substation drainage systems is impermeable and prevents both uncontrolled surface runoff and subsurface infiltration. It also asks how impermeable membranes will be protected against damage from activities such as piling. These concerns cannot be answered simply by pointing to the BESS firewater tanks, because a transformer or substation fire is a separate source and pathway. [Environment Agency RR, 4 June 2026, EA20 and EA25.]

EA23 addresses the post-incident period. The Agency requests clear arrangements for manual operation, testing and maintenance of isolation systems, appropriate analysis of captured firewater and cleaning of the drainage system before reopening. It specifically warns that obtaining any necessary discharge permit may take substantial time; further rainfall during that period could consume the available storage and create a pollution risk. The Agency therefore encourages tankering potentially contaminated firewater off site. [EA RR, EA23.]

The oBSMP now expressly provides automatic isolation with manual override and specifies post-fire sampling and tanker removal where contamination is identified. BEPS therefore does not maintain that these controls are absent. The residual question is whether their final hydraulic capacity, redundancy and operational arrangements adequately address the post-fire conditions identified by the regulator.

EA24 identifies a further pathway which is easily overlooked. Firewater may be removed while contaminants remain trapped within the gravel or aggregate drainage layer. The Agency requires arrangements for removal, cleaning or replacement of contaminated drainage components, management of contaminated cleaning water, protection and inspection of the impermeable liner during remediation and consideration of separately isolatable BESS drainage zones. It notes that serious contamination could require temporary local removal of BESS units to remediate the drainage medium. [EA RR, EA24.] Containment therefore cannot be judged only by whether the initial firewater remains behind a closed valve: it must remain effective throughout recovery and remediation.

The groundwater setting reinforces the need for that certainty. EA34 states that the south-western part of the Order Limits containing the BESS, National Grid Substation and Project Substations is within Source Protection Zone 3 and approximately 500 m from SPZ1 of a public water-supply abstraction. It also asks for private groundwater abstractions to be treated as high-sensitivity receptors. EA26 requires the eventual ERP to include arrangements for notifying downstream surface-water or groundwater abstractors where an incident could affect their supplies. [EA RR, EA26 and EA34.]

There is also a subsurface pathway. The final design permits piles to depths of up to 12 m for BESS and substation infrastructure. EA36 considers that deep foundations and trenchless works can create preferential pathways through superficial deposits into the Principal Aquifer and requires Foundation Works Risk Assessments informed by local ground investigation for all BESS and substation structures, together with hydrogeological risk assessment for relevant trenchless works. (NSIP Documents) [EA RR, EA36.]

The regulatory position is therefore more nuanced than either ‘there is no containment’ or ‘containment has resolved the issue’. There is a credible outline strategy, but the Environment Agency has identified material details that determine whether that strategy will work in the final development.

BEPS submits that those matters should be secured as pre-construction design requirements and should cover both the BESS and substations. In particular, the final drainage and BSMP documentation should demonstrate complete impermeability, verified storage capacity, isolation redundancy, post-fire testing and disposal, contaminated aggregate remediation, protection of liners, rainfall during delayed disposal, protection of public and private abstractions, and the relevant Foundation Works Risk Assessments.

18.11 BESS construction, replacement and decommissioning safety

BESS safety is not limited to the operational period between commissioning and a hypothetical fire. The Scheme creates repeated periods of installation, replacement and removal during its 60-year life.

The oBSMP contains an important construction commitment: BESS installation is not to commence until practical emergency provisions are in place, expressly including filled firefighting-water tanks, together with a construction ERP coordinated with relevant stakeholders and emergency services. The

Environment Agency asks that this principle be made more explicit for pollution controls by requiring sealed drainage and the penstock/isolation system to be operational before battery equipment is installed. [EA RR, EA21.] BEPS supports that requirement. A firefighting system is of limited environmental value if batteries arrive before the system needed to contain its runoff is operational.

The scale of replacement is also material. Chapter 4 states that the BESS could be replaced up to five times during the operational phase. That potentially creates five substantial cycles of removal, transport and reinstallation of battery equipment in addition to ad hoc replacement of defective components. (NSIP Documents) It should therefore be treated as a recurring hazardous-materials and emergency-planning issue rather than an incidental maintenance activity.

The oBSMP does contain sensible controls for defective batteries. A defective module is to be disconnected, subjected to a specific removal risk assessment, placed in an approved protective container and moved to a dedicated safe location pending inspection; replaced components are intended to be recycled. Following a fire, the oBSMP requires a post-incident recovery plan addressing reignition and removal and disposal of damaged equipment, with a fire watch retained until all potentially damaged batteries have been removed.

The Environment Agency nevertheless identifies the remaining gap. EA22 seeks clearer arrangements for how damaged and end-of-life batteries will be removed and where they will be stored between removal and lawful off-site disposal. EA21 further asks the Applicant to confirm that batteries will be removed before fire-protection and surface-water-containment systems are decommissioned. Those are straightforward but important sequencing requirements.

The oBSMP presently states only that safe BESS decommissioning will be addressed before decommissioning in accordance with the decommissioning management arrangements. That is appropriate for details six decades away, but the controlling principle can and should be fixed now: containment, emergency access, monitoring and firefighting capacity must remain operational until the final battery and any fire-damaged or defective equipment have been made safe and removed.

That principle should apply equally during each major battery replacement. A system designed to protect a fixed operational BESS must remain effective when large numbers of batteries are being disconnected, moved, temporarily stored and transported.

Part C – Other Major-Accident and Infrastructure Interactions

18.12 Site 1: aviation, transmission and receptor interaction

The final application raises a series of interrelated safety pathways at Site 1 which should be examined together when testing whether the earlier MA&D scope-out remains robust in the final design.

BEPS does not suggest that the coexistence of aviation, 400 kV infrastructure, the BESS, the railway and nearby communities proves that a compound or ‘domino’ accident will occur. The issue is different. The final Scheme places several substantial infrastructure and operational constraints within the same locality, and some of the evidence on their interaction remains disputed. A conclusion of no significant safety effect should therefore rest on a resolved final configuration rather than consideration of each feature in isolation.

18.12.1 Tibenham and emergency landing constraints

The Applicant has now undertaken a specific EFATO and Glider Launch Failure assessment for Tibenham. APP/7.27 records that Site 1A and Site 1B are approximately 1.59 km from the nearest runway threshold and are most relevant to operations from runway 08/26. It calculates that the Scheme occupies 6.46% of the land within its 60-degree emergency-landing sector and 4.30% within its 90-degree sector, leaving 77.64% and 83.32% respectively classified as suitable under the Applicant's methodology. (NSIP Documents)

That analysis is useful, but the methodology itself requires caution. APP/7.27 expressly states that there is ‘no known guidance in the United Kingdom or internationally’ specifically governing the EFATO and GLF effects of solar development and that CAST Advice Note 5 does not prescribe a methodology. (NSIP Documents) The report then relies in part upon the proposition that East Pye would occupy ‘less than 10%’ of the assessed land. No cited aviation standard in that passage establishes 10% as an accepted safety threshold. It is therefore an assessment conclusion, not a regulatory test. (NSIP Documents)

The disagreement is also not historic. The Applicant's own Position Statement on Aviation [EXAM/8.4] records that Norfolk Gliding Club considers the mitigation inadequate in relation to emergency landing, glint and glare and operational effects, that GAAC similarly considers aviation safety insufficiently addressed, and that NGC objects to the inclusion of Site 1. The Applicant maintains the opposite view and the parties are seeking to narrow the dispute through the Statement of Common Ground process. [EXAM/8.4, §§4.1–5.2.]

There is a particularly useful comparator within East Pye itself. At Seething, the Applicant removed solar panels from the eastern part of Sub-Site 10B to preserve forced-landing options following EFATO from runway 24. Its Policy Compliance Document expressly identifies that removal as embedded mitigation, and EXAM/8.4 states that the Applicant is willing to amend the design where assessment demonstrates a significant increase in EFATO or GLF risk. (NSIP Documents)

That makes the outstanding Tibenham dispute a proper examination matter. Where the aerodrome operator continues to dispute emergency-landing safety and the Applicant's consultant acknowledges the absence of a prescribed EFATO/GLF methodology, the ExA should not treat a consultant-derived percentage as the equivalent of an agreed safety threshold. The issue should be resolved through operator-specific evidence and, if necessary, physical design mitigation of the type already adopted at Seething.

18.12.2 Proposed electrical infrastructure

The final Site 1 configuration must also be described accurately. The new National Grid Substation is within Sub-Site 1B. A separate 400 kV Project Substation is also proposed within Sub-Site 1B. The National Grid Substation would connect to the existing Norwich Main–Bramford 400 kV overhead transmission line through a double-circuit turn-in arrangement. The Scheme allows up to four new pylons and a temporary pylon during the diversion works; the maximum authorised new-pylon height is 61 m.

These are not minor features within an otherwise flat solar array. The 400 kV Project Substation has a maximum busbar height of 13 m, the National Grid Substation up to 15 m, and the grid works introduce major fixed electrical plant, transformers, gantries and new overhead-line structures.

BEPS does not assert without evidence that those structures make aviation operation unsafe. The relevant examination question is whether APP/7.27's mapped ‘proposed development’ and emergency-landing analysis fully represent the final combined obstacle envelope now authorised at Sub-Site 1B, including the Project Substation, National Grid Substation and final overhead-line/pylon arrangement, rather than merely the solar-array land take.

The same infrastructure has a separate firewater dimension. Oil-containing transformers and substation plant are potential sources of contaminated runoff in a fire, which is why the Environment Agency's EA20 and EA25 representations expressly address substation firewater and not merely the BESS. The final Site 1 safety case therefore needs to join together the aviation, electrical and environmental constraints of the actual final layout rather than treating them as unrelated technical chapters.

18.12.3 Norwich–Tilbury and railway context

BEPS does not allege that East Pye, Norwich–Tilbury and the Norwich–Diss railway create an established domino-accident sequence. That would go beyond the evidence.

The railway has in fact been considered in the BESS plume assessment. Five Norwich–Diss railway receptors were modelled for smoke visibility, at approximately 0.99–1.17 km from the modelled BESS source locations, and the Applicant concluded that predicted visibility remained well within safe stopping distances. The objection should therefore not be framed as an omitted railway plume assessment.

The wider point is cumulative operational context. Site 1 already contains a 400 kV transmission corridor which East Pye proposes to reconfigure; the Scheme adds solar development, BESS and two major substation functions in the same wider locality; the Norwich–Diss railway forms another fixed strategic corridor; and Norwich–Tilbury represents further major electricity-network development in the region. Chapter 18 itself confirms the existing 400 kV line and five pylons through Site 1.

For aviation in particular, progressively converting open rural land into fixed energy and transport infrastructure can alter the practical availability of emergency options even where no single item constitutes a prohibited obstacle. The appropriate question is therefore whether the final cumulative physical environment around Tibenham has been considered in the operational safety dialogue with NGC, rather than whether BEPS can prove a compound accident scenario in advance.

18.12.4 Great Moulton residential receptors

The Applicant's own evidence provides a useful limit to this objection. The BESS is approximately 200 m from the nearest residential property, and the plume assessment predicts no relevant AQAL exceedance at the modelled residential receptors. BEPS should not suggest otherwise.

However, absence of a modelled residential AQAL exceedance is not the same as absence of an emergency-planning relationship with the surrounding community. The oBSMP itself provides for notification of potentially affected residents, including advice to remain indoors and close windows during a BESS fire. It also identifies exceedances on Great Moulton Restricted Bridleways 18 and 19 and contemplates their temporary closure.

The final ERP therefore needs a practicable community-response protocol. That should identify the geographic warning area, responsibility for issuing warnings, communication with residents and route users, emergency-service coordination and the relationship between shelter-in-place advice, any evacuation decision and highway/PRoW controls.

The issue is one of preparedness, not an assertion that Great Moulton would necessarily be exposed above health standards.

18.12.5 Water environment consequences

Site 1 also demonstrates why accident consequences cannot be considered solely in terms of fire and air emissions. The Environment Agency's final representation states that the south-western Order Limits containing the BESS, National Grid Substation and Project Substations are within SPZ3 and approximately 500 m from SPZ1 of a public drinking-water abstraction. It requires public-water-supply SPZs to be properly included in the assessment and private groundwater abstractions to be treated as high-sensitivity receptors. [EA RR, EA34.]

The Environment Agency also requires Foundation Works Risk Assessments for BESS and substation structures because deep foundations may create preferential pathways into the Principal Aquifer. The Scheme's design envelope permits piling to 12 m for both BESS and National Grid/Substation infrastructure. (NSIP Documents) [EA RR, EA36.]

This does not mean that Schedule 4 automatically requires a separate quantified hydrogeological major-accident model. It means that the environmental consequences relied upon in maintaining the MA&D scope-out must remain consistent with the final groundwater, drainage and foundation design. Chapter 9

and the Environment Agency process are therefore integral to the safety conclusion reached in Chapter 18.

18.13 Site 5: gas, electricity, water and sensitive receptors

Site 5 presents a different form of interaction. It is not principally a BESS location. It is a locality where a high-pressure National Gas transmission pipeline, a proposed 400 kV Project Substation, solar infrastructure, water receptors, nearby homes and a nursery, PRoWs and ecological receptors occupy the same wider area.

BEPS does not submit that this proves that a cascading or ‘domino’ accident will occur. The stronger case is that multiple high-consequence infrastructure types and sensitive receptors occupy the same locality, so their interfaces must be demonstrably resolved and secured before a conclusion of negligible or non-significant risk is accepted.

18.13.1 High-pressure gas/electricity interface

Chapter 18 now confirms that the high-pressure National Gas pipeline passes through both Sub-Site 5A and Sub-Site 5B, as well as other parts of the Scheme. Chapter 4 simultaneously places one of the Scheme's three 400 kV Project Substations within Sub-Site 5A. That substation may include transformers and switchgear, has a maximum busbar height of 13 m and can use piled foundations to a maximum depth of 12 m.

National Gas's consultation evidence identifies the relevant asset as Feeder Main FM05 Yelverton–Stowmarket together with cathodic-protection infrastructure and ancillary apparatus. It records easement restrictions on structures, ground-level changes and storage, requires continuing access and expects protective provisions where Scheme powers affect the apparatus. (NSIP Documents)

The final ES states that buffers and easements will reduce interaction and that detailed works will be undertaken in consultation with NGT. That is relevant mitigation. It does not itself answer every engineering interface created by the combination of a 400 kV substation, cables, access infrastructure and a transmission pipeline.

The ExA should therefore require a clear final demonstration of the separation between the Site 5 Project Substation and FM05; the relationship of foundations, piling and earthworks to the pipeline easement; access for NGT inspection and emergency repair; cable crossings; earthing and any required electrical-interference/cathodic-protection assessment; and confirmation from NGT that the final arrangements are acceptable. The case is not that coexistence is impossible. It is that it must be engineered and agreed, not assumed.

18.13.2 Hempnall Beck and wider chalk-stream pathways

For accuracy, this subsection should be headed by reference to **Hempnall Beck rather than the River Tas**. The final Water Environment chapter identifies

Hempnall Beck as the main-river chalk stream flowing between Site 7 and Sites 4–6. An ordinary-watercourse tributary runs adjacent to the western boundary of Sub-Site 5B, and both 5A and 5B fall within the Hempnall Beck WFD water body. (NSIP Documents)

That creates a direct receiving-water context for Site 5. Construction pollutants, sediment, transformer oils and contaminated firewater are therefore relevant pathways, particularly because a major 400 kV Project Substation is proposed within 5A. The issue should be considered through Chapter 9, the final drainage design and the Environment Agency's requirements rather than by asserting an unsupported major-accident chain.

The Environment Agency's EA20 and EA25 representations are directly relevant: substation drainage must prevent uncontrolled release of firewater and oil-contaminated runoff, and impermeability must extend to the drainage system as a whole. EA36 additionally identifies the proposed Project Substations at Sites 4, 5, 7 and 10 as areas of particular concern for deep-foundation interaction with the Principal Aquifer. [EA RR, EA20, EA25 and EA36.]

Site 5 therefore requires an integrated surface-water and groundwater solution. A firewater system which protects the surface watercourse but permits infiltration through damaged or inadequately assessed foundations would not resolve the pathway.

18.13.3 Private water supplies

PINS expressly noted at scoping that private water supplies existed within 250 m of the Scheme and that their accurate locations and abstraction details were not then known. It required the ES to identify and assess private supplies and their protection zones wherever significant effects could arise.

BEPS should not state, without final verified data, that a particular Site 5 well would necessarily be contaminated by a substation or pipeline incident. The examination point is instead that the final receptor schedule must demonstrate which private abstractions could be influenced by the Site 5 works and how they are protected.

That question is reinforced by the Environment Agency's final position that private groundwater abstractions should be treated as high-sensitivity receptors and that accidental contamination of public and private water supplies must form part of the water assessment. [EA RR, EA33–EA34.]

Where a private supply lies within the relevant hydrogeological influence area, the protection package should identify baseline water quality, monitoring and incident-response triggers and a contingency supply or remediation mechanism. That is particularly important where the possible source is not routine runoff but an accidental transformer-oil or contaminated-firewater release.

18.13.4 Nearby residential and vulnerable receptors

Site 5 is not an isolated infrastructure compound. The Applicant's own baseline records an isolated dwelling adjacent to the eastern boundary of Sub-Site 5B,

another approximately 100 m north-west of 5B and a dwelling approximately 60 m north of 5A. It also records commercial premises and a nursery to the north.

The noise baseline specifically identifies Jack in the Box Nursery alongside dwellings on Bungay Road and The Street, Beech Farm, Church Farm House and other receptors around Site 5. South Norfolk Council went further during consultation, stating that the nursery should be treated as a high-sensitivity receptor because of the sensitivity of its occupants rather than merely as a medium-sensitivity commercial property.

Those facts do not establish an unacceptable major-accident risk. They do mean that the Site 5 safety and emergency-access arrangements cannot be assessed as if the substation and pipeline interface were remote from people. Final access, construction controls, electrical and pipeline protection, pollution response and any emergency arrangements need to recognise the actual nearby receptor pattern.

18.13.5 Ecological receptors

Site 5 also lies within an environmentally sensitive receiving environment. The Applicant's baseline identifies Fritton Common SSSI approximately 630 m south of Sub-Site 5B, while the Environment Agency specifically identifies Fritton Common as a groundwater-dependent terrestrial ecosystem. [EA RR, EA27.] Hempnall Beck is itself a chalk stream and WFD water body. (NSIP Documents)

Care is required over white-clawed crayfish. The authoritative evidence presently relied upon by PINS is that Environment Agency records show white-clawed crayfish on the **River Tas**, and PINS required surveys at relevant locations when works affecting watercourses are known. That evidence should not be converted into an assertion that crayfish have been demonstrated within Hempnall Beck or at Site 5 unless the latest survey evidence establishes that fact.

The proper Site 5 argument is therefore based on known chalk-stream, groundwater and designated-site sensitivity. If later survey evidence establishes additional protected-species receptors, they must be added to that assessment; BEPS should not pre-judge the result.

18.13.6 Emergency access and containment

The significance of Site 5 lies in the combination of constraints. Emergency or maintenance access must remain available to National Gas; the Project Substation requires safe operational and emergency access; the development must protect nearby dwellings and the nursery; polluted runoff must be prevented from reaching Hempnall Beck, groundwater or abstractions; and any containment and foundation design must be compatible with both the gas pipeline and the underlying aquifer.

These are not theoretical concerns invented by objectors. The final application confirms the gas pipeline through 5A and 5B, the 400 kV Project Substation in 5A and the nearby water and human receptors. National Gas requires protected access and easement compliance, while the Environment Agency requires

further certainty over substation firewater, impermeable drainage and deep foundations. (NSIP Documents) [EA RR, EA20, EA25 and EA36.]

The Examination therefore does not need to determine that a gas rupture, transformer fire or combined event is likely. It needs to be satisfied that the interfaces have been eliminated or controlled through a final, enforceable design.

The strongest objection at Site 5 is not that a domino accident has been shown to be inevitable. It is that a high-pressure national gas transmission asset, 400 kV electrical infrastructure, sensitive groundwater and surface-water receptors, nearby homes and a nursery occupy the same locality. A conclusion of no significant effect is only robust if those interfaces are demonstrably resolved and secured, rather than left to future detailed design and operator agreement.

Part D – Glint and Glare

18.14 Glint and glare: methodology and reasonable worst case

The final Glint and Glare Assessment [AS-026–AS-029] is materially more developed than the preliminary assessment. It models both technologies which the Scheme may deploy: fixed panels and single-axis tracking (‘SAT’) panels. That is necessary because the Applicant has not committed to a single panel technology across the Scheme and the reflection geometry differs materially between a fixed south-facing array and a tracker which changes angle through the day.

For modelling purposes, fixed panels are assumed to face due south at an azimuth of 180 degrees, with a 25-degree elevation angle and assessed centre height of 1.95 m, within an overall height range up to 3.5 m. SAT panels are modelled with a north-south tracking axis orientation of 180 degrees, a ±60-degree range of movement, a zero-degree resting angle and assessed centre height of 2.45 m, with maximum panel height up to 4.5 m at greatest inclination. The SAT modelling also incorporates an approximation of backtracking. The report states that this simplification is generally conservative because flatter panels can create reflections over a wider range of ground-level azimuths. [AS-026, §§2.2–2.3.]

The assessment uses a 50 m reflector resolution across the identified panel areas. Ground-based receptors are generally identified within 1 km; aviation receptors are considered within 15 km. Road receptors are normally spaced approximately 100 m apart and modelled at an eye height of 1.5 m. Dwellings are modelled at 1.8 m, intended to represent ground-floor eye level. Aviation modelling combines Pager Power geometric calculations with the Forge/Sandia glare-intensity methodology. [AS-026, §§2–5.]

The assumed panel surface is also important. The assessment models ‘smooth glass with an anti-reflective coating’. EN-3 itself recognises that the reflective qualities of panels may depend upon panel specification and states that anti-

reflective coating may need to be secured for the lifetime of a permission. The assessment also reproduces EN-3 paragraph 2.10.98, which states that panels, frames and supports may need to be considered for their combined reflective quality, but the quantitative assessment is principally an assessment of reflection from the panel surfaces. The final specification should therefore secure the material characteristics relied upon in the modelling, including the anti-reflective treatment and any material tracking parameters.

The visibility assessment then introduces a further layer of judgement. The bare-earth geometric modelling does not itself include buildings or vegetation. Pager Power subsequently reviews Google Earth, Street View, terrain information, the landscape strategy and available site photography to decide whether a geometrically possible reflection will actually be visible. The report expressly acknowledges that the imagery ‘may not be up to date’ and ‘may not give the full perspective’ from the receptor. [AS-026, Appendix E.] That qualification matters because extensive conclusions of ‘no impact’ depend not on the absence of a reflection, but upon an assumption that intervening vegetation or buildings will prevent it being seen.

Construction and decommissioning are not separately modelled. The report treats full operation as the reasonable worst case on the basis that panels will be installed gradually during construction and removed gradually during decommissioning, so the reflecting area can only be equal to or smaller than during operation. That is reasonable as regards panel numbers, but it does not automatically address differences in screening. Where the operational conclusion relies upon proposed vegetation, an early installed panel may exist before that vegetation has matured; likewise decommissioning sequencing may alter established screening relationships. PINS specifically required construction and decommissioning to be considered, not simply assumed to be no worse because fewer panels are present. The Applicant's original Scoping Report itself acknowledged likely significant effects to roads, dwellings and aerodromes and proposed that those effects be addressed through the detailed assessment.

BEPS therefore does not contend that the Applicant has failed to model both fixed and tracking technology. It has. The unresolved issue is whether the DCO and associated controls constrain the eventual Scheme to the actual parameters on which that modelling depends. The correct examination question is:

Does the assessment genuinely encompass every panel technology, orientation, tracking regime, surface specification and layout which the DCO would permit, and are the assumptions which make the model acceptable secured for the operational life of the Scheme?

If not, the assessment describes one modelled configuration rather than the full consented envelope.

18.15 Residential glint and glare

The scale of the residential assessment should not be understated. The revised assessment considers 482 dwelling receptors within 1 km of the Scheme. In residential areas containing several rows of properties, however, only the outer dwellings are assessed on the assumption that they will obscure those behind; in some locations one receptor point also represents several separate addresses.

All dwelling modelling is undertaken at 1.8 m to represent the ground floor, with upper-storey visibility considered subsequently through professional judgement. [AS-026, §4.5.]

The Applicant's geometric model predicts reflections towards all 482 assessed dwellings. It then concludes that existing vegetation, buildings or terrain will significantly obstruct views at 414, reducing the predicted effect to ‘no impact’. For the remaining 68 dwellings, unmitigated reflections are capable of occurring for more than three months per year, although for less than 60 minutes on any particular day. [AS-026, Executive Summary and §5.4.]

Of those 68 dwellings, 22 are said to benefit sufficiently from existing vegetation, buildings or terrain that only marginal upper-floor views may remain. Those are classified as low impact. The remaining 46 rely upon the Scheme's proposed landscape mitigation to obscure the reflecting panels at ground-floor level, again with marginal upper-floor views acknowledged. Once that future planting is taken into account, these too are classified as low impact and no further mitigation is recommended.

That is a major change in conclusion produced by screening, not by the disappearance of the underlying reflection. At 46 dwellings the Applicant's own model finds a duration which would otherwise trigger further assessment and possible mitigation; it reaches the low-impact conclusion because vegetation which does not yet perform the required screening function is assumed to do so.

Three matters therefore require examination.

First, the timing of that mitigation matters. A hedge or tree belt that may screen a panel at Year 10 or Year 15 does not remove an effect when panels first become operational. The assessment should identify when each relied-upon planting belt becomes sufficiently high and dense to deliver the screening assumed by the glint-and-glare assessment, and what effect remains before that date.

Secondly, screening must work when glare can actually occur. Deciduous vegetation cannot simply be treated as an opaque barrier throughout the year. The assessment should demonstrate that the seasonal state of vegetation has been reconciled with the dates and times when reflections are predicted. Gaps at gateways, accesses and within hedgerows also matter.

Thirdly, 60 years is a long period over which to assume the continued effectiveness of vegetation. Existing screening may be outside the Applicant's ownership or control; trees fail, hedges are cut, diseased vegetation is removed and highway visibility requirements can require alteration. Any vegetation necessary to achieve a no-impact or low-impact conclusion needs a binding retention, management and prompt replacement obligation capable of preserving its screening function throughout operation.

The treatment of upper storeys also requires care. The methodology gives greater significance to the ground floor because it is characterised as the ‘main living space’. That does not make bedrooms, first-floor living areas or other windows irrelevant. The Applicant expressly acknowledges marginal upper-storey views at a number of receptors. Where the conclusion depends on proposed

planting obscuring only ground-floor views, the residual upper-floor effect should be stated transparently rather than lost within a generic low-impact category.

Finally, the assessment's dependence on imagery should be weighed against its own limitation. The same report which concludes that existing vegetation significantly obstructs views at hundreds of dwellings acknowledges that its Street View and satellite material may be outdated and may not provide the full receptor perspective. Where screening is decisive to the conclusion, it should be capable of verification and securing.

The apparent inconsistency in the earlier assessment between the Executive Summary and individual dwelling tables over whether reflections were geometrically possible towards every dwelling appears to have been corrected in Revision 2. BEPS therefore does not rely upon that earlier drafting issue. The substantive issue remains: the Applicant predicts reflections towards a very large residential receptor population and achieves its final low/no-impact conclusion principally through existing and future screening.

18.16 Roads and driver safety

Road glare requires separate treatment from residential amenity. A fleeting reflection which might be tolerable at a dwelling can have a different consequence where it occurs within the primary field of view of a moving driver at a junction, bend or access.

The Applicant recognises that distinction. Its methodology treats the primary horizontal field of view as 50 degrees either side of the direction of travel. Where a reflection is within that field, Pager Power considers whether it is directly ahead, the separation from the panels, whether elevated drivers may be affected, whether exposure would be fleeting because of gaps in screening and the position of the Sun. A reflection which remains significant after those factors is classified as moderate and mitigation is recommended. [AS-026, §5.3.]

The significant weakness is that detailed modelling is restricted to the A140 and B1527. The assessment expressly says that technical modelling is ‘not recommended for local roads’ because traffic densities are likely to be relatively low, and assumes that any effect upon users of those roads would be low impact in the worst case. [AS-026, §4.4.] Traffic volume is not, however, a substitute for assessment of accident consequence to an individual driver, cyclist, equestrian or pedestrian.

18.16.1 A140

The A140 requires particular scrutiny. It is a principal north-south arterial road through the Scheme and ES Chapter 11 identifies it as one of the Scheme's key construction-traffic routes. At Site 4, solar development would flank both sides of the A140. Drivers would therefore pass through a solar landscape rather than merely past a single remote field.

The glint-and-glare assessment finds geometrically possible reflection from fixed and SAT panels over 4.2 km of the A140. For receptors A15–A42, those reflections occur within the driver's primary field of view. The conclusion is

nevertheless ‘no impact’ throughout because existing vegetation, buildings and terrain are predicted to prevent views of the reflecting panels. [AS-026, Table 6.]

That is a strong conclusion resting on a screening assumption. Site 4 illustrates why it deserves testing. The road runs broadly north-south; fixed south-facing panels and east-west-moving SAT surfaces produce different reflection geometries; panels would lie on both sides of the carriageway; and the Scheme may ultimately use either technology or a combination. The assessment does model both fixed and SAT panels, but only within its stated azimuth, tilt, tracking, height and backtracking assumptions. Those parameters must therefore represent and constrain what is eventually installed.

Screening also needs to work from the actual driving position. The assessment models a standard road-user eye height of 1.5 m. It says elevated drivers are considered ‘where appropriate’, but its supporting footnote associates such consideration particularly with dual carriageways and motorways. The A140 here is a single carriageway. That is material because Chapter 11 shows that the A140 is a key HGV route for East Pye and already carries substantial heavy-goods traffic. A hedge which screens a 1.5 m receptor does not necessarily screen an HGV, coach, bus, tractor or emergency-vehicle driver.

The Applicant should therefore demonstrate the Site 4/A140 result for the highest reasonably foreseeable driver eye position as well as the standard car receptor. If existing vegetation is indispensable to the no-impact conclusion, its continuity, seasonal performance, ownership and long-term retention should also be demonstrated.

18.16.2 B1527

The assessment identifies geometrically possible reflections across 7.9 km of the B1527. Existing vegetation, buildings and terrain are relied upon to screen approximately 5.8 km. For remaining sections, including approximately 1.3 km where reflections would otherwise lie within the road user's primary field of view, proposed landscape mitigation is relied upon to remove the effect. [AS-026, Executive Summary and Table 6.]

Again, the final classification does not mean that the model found no reflection. It means that the reflection is assumed not to be visible once landscaping is taken into account.

The B1527 is also one of the principal east-west construction routes identified in Chapter 11 and passes through settlements and past sensitive uses. It is therefore insufficient to demonstrate only that eventual planting may hide panels. The Applicant should identify the effect during the period before planting performs the required optical-screening function and ensure that road-safety mitigation is effective when panels first become capable of reflecting sunlight.

18.16.3 Minor country roads

The decision not to undertake technical modelling of local roads should be revisited.

East Pye is interwoven with minor rural lanes. These are not simply roads carrying fewer cars. They are generally narrower, frequently have bends, constrained forward visibility and limited refuge, and are shared by local residents, agricultural traffic, cyclists, pedestrians and equestrians. They will also experience additional Scheme traffic during construction and decommissioning.

The methodology's proposition that any reflection on a local road is low impact ‘in the worst case’ because traffic density is low confuses frequency of exposure with consequence. A glare event does not become safer for the person experiencing it because fewer other vehicles use the road.

This is particularly relevant to horse riders. A sudden reflection experienced by a horse and rider on a narrow road or confined lane is qualitatively different from residential amenity. BEPS raised this point at scoping. The final assessment should explain why such users require no receptor-specific consideration.

18.16.4 Driver height

The 1.5 m eye-height assumption is a conventional car-driver approximation, but it is not representative of all users of these roads. East Pye's own Transport and Access chapter identifies the A140 and B1527 as key construction arteries and models HGV flows on both.

The importance of this is straightforward. The report's no-impact conclusions depend heavily on hedges and other screening. A higher cab may see over vegetation that blocks a car driver's view. The assessment cannot simultaneously rely on vegetation as decisive mitigation and dismiss the vertical position from which that mitigation is viewed.

Elevated HGV, bus, coach, agricultural and emergency-vehicle receptors should therefore be tested at those road sections where vegetation changes the conclusion from geometrically possible glare to no impact.

18.16.5 Junctions, accesses and decision points

The consequence of glare is also context-dependent. A driver negotiating a junction, making a right turn across traffic, entering or leaving a Scheme access, approaching a bend or responding to construction traffic has a different visual workload from a driver progressing along an uncomplicated straight road.

The methodology recognises direction of travel but the final road conclusions do not transparently identify whether junctions and Scheme access points have been treated as higher-risk decision locations. That matters particularly along the A140 and B1527, where the Scheme introduces or uses numerous construction accesses.

The ExA should require confirmation that each material junction and access within the modelled glare corridors has been separately checked rather than assuming that a 100 m sequence of general receptor points captures the additional road-safety consequence.

18.16.6 Existing screening

The road assessment's conclusion depends on existing screening to an exceptional degree: the full 4.2 km assessed length of the A140 is said to be screened, together with most of the B1527.

That should be tested against the report's own caveat that Street View, satellite and other imagery may be outdated and may not provide the full perspective at a receptor. Vegetation is also not static. Seasonal leaf loss, ordinary management, disease, highway visibility works, gaps at entrances and long-term failure can all alter line of sight.

Where existing vegetation is necessary to achieve ‘no impact’, it has become functional mitigation whether or not it was planted by the Applicant. The Scheme should therefore identify and secure retention of the vegetation upon which the assessment relies, or demonstrate an alternative control if it is lost.

18.16.7 Proposed planting

The same point is stronger where the assessment relies on vegetation which has not yet grown.

The assessment treats proposed landscape mitigation as capable of converting potentially relevant B1527 reflections into no impact and 46 residential effects into low impact. What matters for highway safety is not that a hedge is shown on a landscape plan, but when that hedge becomes an opaque visual screen at the relevant eye height.

The Applicant should identify the effective mitigation year and assess the period before it. Where glare would otherwise require mitigation, operation should not be permitted to commence on the assumption that future vegetation will eventually solve the problem.

18.16.8 Journey-level repeated exposure

Finally, the assessment is principally receptor-point based. Road points are approximately 100 m apart and each is assigned an impact classification.

That does not answer the whole question for a moving driver. East Pye would place multiple separate solar fields alongside roads over substantial distances. A driver may pass from one reflecting field to another, experience intermittent glare through gaps in screening, or encounter different arrays on opposite sides of the same road. At Site 4, the A140 is physically flanked by development.

The relevant safety experience is therefore a journey as well as an isolated coordinate. The Applicant should demonstrate that repeated or sequential exposure along a route does not materially alter the conclusion derived from separately classified receptor points.

18.17 Aviation glint and glare

The aviation results are more significant than the overall ‘no significant effect’ conclusion suggests.

Revision 2 assesses six unlicensed aerodromes: Seething, Long Stratton, Hardwick, Topcroft Farm, Nut Tree Farm and Norfolk Gliding/Tibenham. It finds glare with ‘potential for temporary after-image’, classified as yellow glare, towards approach paths and/or final sections of visual circuits at every assessed aerodrome. For Norfolk Gliding Airfield, yellow glare is geometrically possible towards all six runway-threshold approach assessments and the final circuit sections. [AS-026, Table 4.]

The predicted annual durations are substantial and differ materially between fixed and tracking technology. For SAT panels, the maximum annual yellow-glare duration is stated as 22,711 minutes at Seething, 11,304 minutes at Hardwick, 2,993 minutes at Topcroft and 10,094 minutes at Norfolk Gliding Airfield. At Tibenham the equivalent fixed-panel result is 4,774 minutes. The Applicant expresses these as percentages of assumed annual daylight hours and emphasises that exposure is contingent upon clear weather and an aircraft being in the affected position at the relevant time. [AS-026, Table 5.]

Those qualifications are relevant. They do not make the underlying finding disappear.

Pager Power's assessment of yellow glare relies upon several mitigating considerations: the Sun would generally be low and within the same view; the predicted glare only marginally exceeds the green/yellow threshold; traffic volumes are lower than at major licensed aerodromes; circuit exposure may be fleeting; clear conditions are needed; and pilots already employ methods to manage direct sunlight. The report therefore concludes that yellow glare ‘could potentially be operationally accommodated, subject to consultation with the airfields.’ [AS-026, §5.2.4.]

The words ‘subject to consultation’ are important. Pager Power's own significance framework defines a moderate effect as one which may be acceptable but for which ‘consultation and/or further analysis should be undertaken to determine the requirement for mitigation’. [AS-026, Appendix D.] It is therefore not enough to identify a moderate effect and then treat operational accommodation as an established mitigation where the affected operator has not accepted it.

Tibenham demonstrates the problem most clearly. Following receipt of Norfolk Gliding Club's specific circuit information, Revision 2 models 38 circuit and approach paths for powered and gliding aircraft at minimum and maximum heights. It predicts moderate effects for the 08 left-hand powered circuit and for the 08, 08S and 08L left-hand glider circuits at both minimum and maximum assessment heights. In each case reflecting panel areas are described as within the pilot's field of view and in line with the pilot's bearing. The conclusion is that the effect ‘could be operationally accommodated, subject to consultation with Norfolk Gliding Club.’ [AS-029, Appendix J.]

That consultation has not produced agreement. Norfolk Gliding Club, as owner and operator of Tibenham Aerodrome, expressly disputes the adequacy of the glint-and-glare assessment, objects to Site 1 and says that no satisfactory mitigation has been offered. GAAC similarly objects on aviation-safety grounds and questions the adequacy of engagement and site-specific assessment.

The Applicant's September Aviation Position Statement [EXAM/8.4] confirms that this disagreement remains live. It records that NGC considers mitigation insufficient in relation to emergency landing, glint and glare and operational effects, that GAAC considers aviation safety inadequately addressed, and that NGC objects to Site 1. It nevertheless maintains that the glare can be operationally accommodated and proposes no separate aviation monitoring regime. Instead, it relies on the ability at detailed design to alter panel configuration, azimuth, fixed-panel tilt or SAT backtracking angle.

That position exposes the remaining issue. If the current assessment already demonstrates acceptability, there should be no need to reserve potentially material changes to panel geometry as later mitigation. If changes to azimuth, tilt or tracking are necessary to make Tibenham safe, those changes should be defined, assessed and secured before consent, not left to a future management plan.

The CAA material reproduced by the Applicant points in the same direction. The assessment records CAA advice that developers should provide safety-assurance documentation, including risk assessment, concerning the full potential impact of a solar installation on aviation interests. [AS-026, Appendix A.] Where the aerodrome operator remains in substantive disagreement about the effect on its actual circuits, a consultant's prediction of operational accommodation cannot substitute for resolution of that safety dispute.

BEPS does not submit that yellow glare automatically establishes an unacceptable aviation risk. It submits that the Applicant has identified yellow and, for specific Tibenham circuits, moderate effects; the methodology itself calls for consultation/further analysis at that level; and the aerodrome operator continues to reject the proposition that the effect has been satisfactorily resolved.

18.18 Wider aviation safety at Tibenham

Glint and glare is only one component of the Tibenham objection. NGC's concerns also encompass emergency landing following engine failure, glider and aerotow launch failure, thermal effects, bird strike and the progressive loss of open land within a low-level circuit environment.

The Applicant responds principally through the High Level Investigative Report [APP-222]. That report is useful, but its limitations should be understood.

18.18.1 EFATO and glider launch failure

APP-222 assesses Site 1 against Engine Failure After Take-Off (‘EFATO’) and Glider Launch Failure (‘GLF’). It confirms that the closest panels in Sites 1A and 1B are approximately 1.59 km from the nearest Tibenham runway threshold. It

assesses 60-degree and 90-degree sectors extending 2 km east from threshold 26.

The Applicant calculates that East Pye would occupy 6.46% of the land in the 60-degree sector and 4.30% in the 90-degree sector, leaving respectively 77.64% and 83.32% classified as suitable for emergency landing once baseline unavailable land is also taken into account. [APP-222, Table 1.]

Those figures are evidence of a real loss of potential landing land. The dispute is whether that loss is acceptable.

APP-222 itself states that there is ‘no known guidance in the United Kingdom or internationally’ specifically governing the EFATO and GLF effects of solar development and that CAST Advice Note 5 does not prescribe a methodology. Its conclusion then gives weight to the fact that East Pye occupies ‘less than 10%’ of the relevant sectors. [APP-222, §§2–3.] The report does not identify a regulatory or published aviation-safety standard establishing 10% as an accepted threshold. It is therefore a consultant-derived evaluation, not a recognised safety limit.

That distinction matters where the operator responsible for the aerodrome rejects the conclusion.

18.18.2 Aerotow failure

NGC raises a more specific operational scenario: an aborted aerotow launch may require both the tow aircraft and the glider to land separately in an emergency.

APP-222 assesses EFATO and GLF as generic emergency-landing constraints, but it does not expressly model an aborted aerotow involving two aircraft simultaneously requiring suitable landing options. The Applicant's Position Statement records NGC's concern but responds by referring back to APP-222's overall calculation of available land.

Where this is an identified operational scenario at a mixed powered/gliding airfield, the ExA should establish whether the generic percentage-land methodology actually captures it. If it does not, the scenario should be separately addressed.

18.18.3 Forced landing and low-altitude consequence

The relevance of Site 1 is not simply that pilots might prefer an unobstructed view. NGC's evidence is that an EFATO or launch failure occurs at low level, when options narrow quickly and the consequences of an unsuccessful forced landing are potentially severe.

APP-222 acknowledges the principle. It derives its sector from advice that pilots should generally avoid turns greater than 45 degrees following EFATO and considers GLF to extend from take-off to approximately 300 ft. It also accepts that new obstacles should be considered in emergency planning. [APP-222, §3.]

The planning question is therefore not whether every conceivable emergency landing field must remain permanently untouched. It is whether the avoidable

loss of part of the established emergency-landing environment has been reduced as far as reasonably practicable where the operator says that land has safety value.

18.18.4 Thermal effects

APP-222 separately considers thermal updrafts. It acknowledges that the proposed arrays would sit beneath portions of powered and glider downwind/base circuits for runways 03 and 33. NGC's supplied circuit data indicate powered aircraft generally at 500–800 ft for the downwind/base turn, gliders starting downwind at around 800 ft, completing the diagonal/base turn around 600 ft and making the final turn around 400 ft.

Pager Power concludes that solar-generated thermals would be weak and localised and that vertical separation from aircraft would make the effect negligible. [APP-222, §4.]

This is not, however, a site-specific computational thermal-plume study. It is a qualitative assessment based on general assumptions concerning panel temperature, the relative strength of solar and natural thermals and expected circuit heights. APP-222 acknowledges that no solar-specific aviation guidance exists for these effects.

Given that NGC is a gliding operator and specifically disputes the conclusion in relation to training and circuit operations, its operational evidence should be resolved through the SoCG process rather than dismissed simply because the Applicant's consultant reaches a qualitative contrary view.

18.18.5 Turbulence and wind shear

The same caution applies to turbulence. APP-222 states that there is no known guidance or case material dealing specifically with turbulence or wind shear from solar arrays. It therefore borrows from CAA wind-turbine guidance and Pager Power's experience of building effects, applying a worst-case buffer of 20 times the maximum 4.5 m panel height, or 90 m. It concludes that the vertical separation from aircraft makes any effect negligible. [APP-222, §5.]

The assessment is plainly useful contextual evidence, but it is not a recognised solar-aerodrome standard. Its conclusion should be weighed accordingly.

18.18.6 Bird strike and the ‘lake effect’

Bird strike is not assessed in APP-222. The Applicant addresses it in EXAM/8.4, responding to NGC's concern that panels could create a perceived ‘lake effect’. Its position is that East Pye may increase nesting opportunities for agricultural passerines such as yellowhammer, which are not considered a significant bird-strike risk; no wetlands are proposed which would attract higher-risk birds such as gulls or Canada geese; and evidence that waterbirds are attracted to terrestrial solar arrays is said to be limited.

That is a reasoned position, but it is a qualitative response rather than a site-specific aviation bird-strike risk assessment. If NGC maintains this matter as an

operational safety concern, the final position should be recorded transparently rather than treating it as resolved by assertion on either side.

18.18.7 Training circuits and obstacle environment

APP-222 confirms that portions of East Pye would lie directly below parts of Tibenham's powered and glider circuits. That is especially relevant to student pilots because circuit work necessarily occurs close to the ground and close to the aerodrome.

There is also a wider issue over what has actually been included in the emergency-landing calculation. Section 1.1 of APP-222 describes the development under consideration as solar panels and BESS within Site 1. It does not expressly demonstrate in the EFATO percentage calculation how the Project Substation, National Grid Substation, altered 400 kV overhead-line infrastructure, pylons, gantries or temporary construction obstacles have been treated.

The ExA should therefore require confirmation that the emergency-landing and obstacle assessment represents the complete final Site 1 environment rather than only solar-array land take.

18.18.8 Overall position at Tibenham

The important fact is that this is not an objection which has been overtaken by the final application. EXAM/8.4 expressly records that NGC objects to Site 1 and considers further aviation mitigation necessary. The Applicant disagrees and says no significant effects are predicted. The matter remains under discussion through a Statement of Common Ground.

Consent should not convert that unresolved disagreement into an assumption in favour of the Applicant. Where safety is the issue, the Examination should establish the factual basis of the dispute and require avoidance or specific mitigation where the Applicant cannot demonstrate compatibility with the established aerodrome operation.

The revised NPPF also introduces a relevant national decision-making principle through policy P4. Existing businesses, community facilities, public services and other established activities should not have unreasonable restrictions placed upon their current or permitted operation because later development is approved nearby, and new development should be capable of being integrated effectively with existing activities and infrastructure. The policy expressly includes sports clubs among the existing activities to which the principle applies. That does not determine the aviation-safety question at Tibenham, which remains a matter for the evidence and the applicable aviation and energy policy framework, but it reinforces the need to assess the Scheme against the Gliding Club’s established operational environment rather than assuming that the operator can subsequently accommodate the Scheme.

18.19 Seething as a mitigation comparator

Seething is important because it demonstrates that physical avoidance is both possible and already accepted by the Applicant where aviation assessment identifies a constraint.

APP-223 examined forced-landing options from Seething runway 24 and approach to runway 06. It found that an earlier East Pye layout would constrain forced-landing choices for aircraft experiencing EFATO between approximately 100 and 300 ft on departure from runway 24. It therefore recommended amendment of the solar boundary beneath and to the left of the climb-out path to provide additional landing space as close as possible to the runway heading. The Applicant accepted the recommendation and altered the Site 10B panel deployment boundary. [APP-223, §§3.8–3.10.]

The same process was applied to aircraft experiencing engine failure on approach to runway 06. Potential constraint was identified; further amendment was recommended; the Applicant accepted it. APP-223 consequently concludes that the revised Scheme would no longer constrain forced-landing options from either runway 24 departure or runway 06 approach. [APP-223, §§4.8–5.6.]

EXAM/8.4 expressly describes the removal of panels in eastern Site 10B as ‘embedded mitigation’ and says the Applicant is willing to amend the Scheme where an assessment demonstrates a significant increase in EFATO or GLF risk.

That creates an obvious comparison with Tibenham.

At Seething, the response to identified emergency-landing constraint was avoidance: remove panels and preserve the landing option.

At Tibenham, the Applicant accepts that Site 1 removes 6.46% of the assessed 60-degree emergency sector but concludes that this is not significant because sufficient land remains. No equivalent physical mitigation is presently proposed, despite the aerodrome operator objecting to Site 1.

The two airfields are not identical and BEPS does not contend that identical mitigation automatically follows. But the difference in approach requires an evidence-based explanation. That is especially so because APP-222 accepts that no recognised methodology or accepted percentage-loss threshold exists for solar development and EFATO/GLF at Tibenham.

The ExA should therefore ask a straightforward question:

Why is the mitigation hierarchy applied by removing panels where Seething's forced-landing options are constrained, but not applied at Tibenham where a quantified loss of emergency-landing land is accepted and the aerodrome operator continues to dispute its safety?

‘Operational accommodation’ should not become the default simply because physical avoidance would reduce the developable area.

18.20 Cumulative glint, glare and aviation effects

The Applicant's cumulative assessment is expressly described as ‘high-level’. That description is accurate.

Appendix 18.1 considers one existing solar development west of East Pye, identified in EXAM/8.4 as the existing Tasburgh solar development. Shared receptors are limited to dwellings 4–52, 67 and 89 and road receptors A11–A36 and B1–B16. Because those shared ground receptors are predicted to experience no impact from East Pye, the report concludes that no cumulative effect arises. [AS-026, §6.]

At aviation receptors, it concludes that East Pye and the existing development are adjacent and therefore are not expected to produce reflections at materially different times. Cumulative glare is consequently said not to exceed the geometric result already assessed for East Pye. No combined circuit-by-circuit time-series modelling is presented. [AS-026, §6.]

The Applicant had itself accepted at scoping that cumulative glint-and-glare effects were possible and would be assessed. The final question is whether this high-level exercise is adequate to discharge that undertaking.

18.20.1 Cumulative road exposure

For road users, cumulative effect should not be confined to two solar farms producing a reflection at exactly the same coordinate at exactly the same time.

East Pye itself creates repeated roadside solar exposure over extensive lengths of the A140, B1527 and numerous local roads. A driver experiences the route sequentially. At Site 4, arrays lie on both sides of the A140. The assessment nevertheless assigns separate classifications to approximately 100 m receptor points and does not quantify the repeated journey-level exposure which could result from successive panel fields, intermittent vegetation gaps or changes in panel aspect.

That is an important distinction. A sequence of individually classified low or screened locations does not necessarily answer whether the route as a whole creates a distracting visual environment.

The cumulative assessment should therefore address both intra-Scheme sequential exposure and any existing or approved solar schemes sharing the same road corridors.

18.20.2 Cumulative residential exposure

For residential receptors, the high-level assessment concludes that the homes shared with the existing Tasburgh development receive no East Pye impact and therefore no cumulative impact.

That may be correct for those identified receptors. It does not establish a general cumulative residential conclusion for every surrounding solar development.

Where a dwelling can receive reflections from more than one development, the relevant question may include aggregate annual exposure and reflections occurring at different times or from different directions. Two effects do not cease to be cumulative merely because they do not occur simultaneously.

The Applicant should therefore demonstrate that all existing and approved solar developments capable of sharing residential glare receptors have been identified, and where relevant quantify the combined exposure rather than rely solely upon separate scheme classifications.

18.20.3 Cumulative aviation glare

The cumulative aviation conclusion is particularly narrow. The assessment says that because East Pye and the existing Tasburgh installation are adjacent, they will not produce reflections at materially different times and therefore cumulative glare will not exceed the East Pye geometric result.

That is an assumption rather than a reported combined glare model.

It is also reached against a baseline in which East Pye alone already generates yellow glare towards all assessed aerodromes and specific moderate effects on Tibenham's 08 circuits. Where the aerodrome operator disputes the operational acceptability of those effects, the cumulative assessment should not simply assume that an adjacent reflective development adds nothing operationally material.

At minimum, the Applicant should show that the combined reflecting area does not increase duration, angular extent or pilot workload along the affected Tibenham circuits.

18.20.4 Cumulative operational aviation constraints

The more fundamental deficiency is that the Applicant has treated cumulative aviation largely as cumulative glare.

EXAM/8.4 states that no specific cumulative aviation effect with Norwich to Tilbury has been identified because the principal aviation effect of Norwich to Tilbury arises from pylons, whereas the ‘main concern’ for East Pye is glint and glare. That reasoning is too compartmentalised.

Cumulative effects can arise through different mechanisms acting upon the same receptor. For Tibenham, the identified issues are not confined to glare. They include availability of emergency-landing land, fixed and temporary obstacles, circuit operations, thermal concerns and the wider low-level flying environment. A pylon does not need to produce glare in order to contribute to the cumulative operational constraint on an aerodrome.

The same applies to other solar and energy infrastructure. The proper question is not merely whether two developments produce identical effects. It is whether the combined development environment materially reduces the operational flexibility or safety margin of the same aviation receptor.

The Applicant should therefore assess Tibenham cumulatively in terms of the complete operational environment: East Pye solar arrays, Site 1 BESS and substation infrastructure, existing and altered NGET infrastructure, relevant existing or approved solar development and, where the evidence demonstrates a shared aviation receptor, Norwich to Tilbury or other major infrastructure.

BEPS does not contend that this cumulative assessment must inevitably demonstrate an unacceptable aviation effect. It contends that dismissing a pylon scheme because pylons are ‘separate’ from glint and glare answers the wrong question.

The cumulative test is the effect upon the receptor, not whether every contributing development produces the same physical mechanism.

The evidence therefore supports a narrower but substantial conclusion. The Applicant has undertaken considerable glint-and-glare modelling, but its conclusions remain unusually dependent upon assumed screening, future landscape maturity, a prescribed set of panel parameters, professional judgement and, for aviation, operational accommodation which the principal affected aerodrome operator has not accepted. Those matters should be resolved and secured through design before the ExA treats the residual effect as insignificant.

Part E – Waste and Materials

18.21 Waste and materials: methodology and baseline

The final Waste and Materials assessment is substantially more complete than the PEIR and should be assessed on that basis. At scoping, the Applicant sought to remove Waste and Materials from detailed assessment on the basis of the waste hierarchy and a future Site Waste Management Plan. PINS expressly declined to agree, finding insufficient information on expected waste arisings and requiring an assessment across all phases, including detailed waste streams, expected quantities and monitoring.

Chapter 18 now provides that assessment. It adopts the ISEP/IEMA materials and waste methodology and uses three principal geographical baselines: the East of England for inert and non-hazardous waste; England for hazardous waste and WEEE; and the East of England or UK for construction materials depending on the material concerned. The assessment applies the waste hierarchy and assumes extensive reuse, recycling and recovery before landfill disposal. It also quantifies construction, replacement and decommissioning waste to a degree which was absent from the PEIR. (APP/6.1.18, §§18.5.13–18.5.21.)

The baseline nevertheless contains an important weakness. Chapter 18 records 52.6 million m³ of inert and non-hazardous landfill capacity in the East of England in 2024, but only 9.17 million m³ of hazardous merchant landfill capacity across England. It notes that national hazardous landfill void capacity fell by 50.3% between 2019 and 2024 and accordingly classifies that receptor as of ‘very high’ sensitivity. For Norfolk specifically, Chapter 18 records approximately 3.755 million tonnes per annum of permitted waste-management capacity, of which

approximately 1.1 million tonnes relates to inert/C&D waste. (APP/6.1.18, §§18.5.37–18.5.46.)

The difficulty lies in the future baseline. Paragraph 18.5.53 accepts that there is no reliable public information demonstrating landfill capacity at the time East Pye will generate its later waste streams and that forecasting could suggest no remaining void space. Rather than treating that uncertainty conservatively, the assessment assumes that new capacity will be approved if required and therefore holds future landfill capacity constant at today's level. It makes an equivalent assumption for future material availability. (APP/6.1.18, §§18.5.53–18.5.54.)

Norfolk County Council, as the minerals and waste planning authority, expressly disagrees. Its Relevant Representation states that much of Norfolk's geology is unsuitable for hazardous or non-hazardous landfill and that it cannot be assumed that additional landfill capacity will simply be capable of approval. NCC welcomes the improved waste information but repeats that this assumption is not secure. (NCC Relevant Representation, 10 June 2026, §§4.88–4.90.)

That is important because some of the Applicant's most consequential waste streams arise not during initial construction but decades later. A baseline cannot be made robust merely by assuming that any capacity which disappears will necessarily be replaced.

18.22 Construction material demand

The Scheme is materially intensive. Chapter 18 estimates approximately 22,100 tonnes of steel, 18,300 tonnes of concrete and 157,000 tonnes of aggregate for construction. Against present annual supply it calculates those quantities as approximately 0.14%, 0.51% and 0.30% respectively and concludes that effects on material availability are slight adverse and not significant. (APP/6.1.18, §§18.5.48–18.5.51 and Table 18.17.)

Those percentages provide useful context, but they represent only part of the Scheme's resource demand. Chapter 18 expressly limits its quantified material-availability assessment principally to steel, concrete and aggregate. It acknowledges that PV panels, electrical equipment and other components will largely be prefabricated and purchased on national or international markets, and states that tracing component design, constituent materials and sourcing locations would be ‘disproportionately burdensome’. Material availability during operation, replacement and decommissioning is not assessed further. (APP/6.1.18, §18.5.13.)

The result is therefore not a whole-life materials assessment. It does not quantify the constituent material demand embodied in the PV modules, BESS units, transformers, inverters, switchgear and extensive cabling in the same way that it quantifies aggregate, concrete and steel. Nor does it establish the geographical source or concurrent demand for those components.

For earthworks, the assessment assumes a cut-and-fill strategy which will reuse excavated materials and therefore minimise imported fill. That is appropriate where achievable. It remains an assumption that should be reconciled with the

final detailed design and ground conditions rather than treated as a guaranteed outcome.

Cumulative demand also matters. Chapter 18 models other energy DCO schemes as requiring up to approximately four times East Pye's material requirement but concludes that combined demand would remain below 10% of current annual availability. That calculation again relies upon today's supply baseline. For schemes potentially constructed in overlapping periods, the relevant question is whether the required grades, quantities and delivery capacity will exist when required, not merely whether the theoretical present regional annual production figure is larger.

18.23 Construction waste and soil arisings

Chapter 18 estimates approximately 37,600 m³, or 3,890 tonnes, of identified construction waste. The overwhelming majority is packaging: approximately 29,400 m³ associated with PV panels, 6,720 m³ associated with mounting structures and 1,420 m³ of cable-drum material. It also estimates approximately 15,100 m³ of construction sewage requiring tanker removal. (APP/6.1.18, §§18.5.82–18.5.85 and Table 18.16.)

That figure is not, however, the total volume of material disturbed by construction. Excavated soil is expressly excluded from the construction-waste calculation because the assessment assumes that it will be reused on site wherever feasible and will therefore not become waste. Paragraph 18.5.84 goes further, anticipating that material removed during cable trenching and creation of working, laydown and compound areas will be reinstated, with no or only small volumes requiring import or export.

The following paragraphs qualify that assumption. Surplus material cannot be ruled out and contaminated or otherwise unsuitable soil may require off-site treatment or disposal. (APP/6.1.18, §§18.5.84–18.5.87.) The headline figure of 37,600 m³ should therefore not be read as a complete mass balance for all excavation generated by this geographically extensive Scheme.

Nor does Table 18.16 identify a separate quantity for HDD drilling arisings or drilling-related material. Given the extent of underground cabling and trenchless crossings, the final SWMP should quantify those streams where they cannot be reused as excavated material.

This matters for transport as well as waste capacity. Every tonne which cannot be reused generates an outward movement and, potentially, a replacement inward movement. Chapter 11 assumes that construction logistics will minimise imports and exports. The waste assessment should therefore identify the maximum credible off-site quantity of excavated or drilling material so that the traffic assessment and waste-capacity assessment are based upon the same envelope.

The weakness is not the policy of reusing soil; that is plainly preferable under the waste hierarchy. It is the use of assumed reuse to remove a potentially substantial material stream from the quantified waste total before the final ground conditions and detailed earthworks balance are known.

18.24 Operational replacement waste

The operational phase is not a low-waste period when viewed over the full 60-year life of the Scheme.

Chapter 18 assumes an annual PV failure rate of 0.05%, producing up to approximately 16.4 tonnes of WEEE each year, before planned wholesale replacement is considered. It then assumes one replacement of the PV panels, one replacement of transformers where required, and up to five BESS replacement events. (APP/6.1.18, §§18.5.108–18.5.112.)

The Applicant's own peak replacement scenario is substantial. At approximately Year 30 it estimates:

- 29,400 m³, or 2,370 tonnes, of PV-panel packaging;
- 14,400 m³, or 32,700 tonnes, of PV-panel WEEE;
- approximately 293 tonnes of the PV stream characterised as hazardous, including heavy metals; and
- approximately 22,300 m³, or 20,700 tonnes, of BESS equipment.

The combined WEEE and BESS stream in that peak scenario is approximately 36,700 m³, or 53,400 tonnes. (APP/6.1.18, Table 18.19 and §18.5.117.)

Chapter 18 nevertheless reaches a slight adverse, non-significant conclusion by assuming that more than 95% of those component parts will be recyclable or recoverable and applying Best Available Treatment Recovery and Recycling Techniques. On that assumption, only approximately 1,830 m³, or 2,670 tonnes, of the WEEE/BESS stream reaches hazardous landfill. (APP/6.1.18, §§18.5.111–18.5.119.)

That distinction is critical. The Scheme does not generate only 2,670 tonnes of relevant waste. It may generate approximately 53,400 tonnes of WEEE and battery material in a peak replacement year; 2,670 tonnes is the residual after applying an assumed future recovery performance.

Routine lubricants, oils and individual machinery parts are described as negligible, while no separate large-scale operational replacement scenario is quantified for extensive cabling. The final Operational SWMP should therefore contain an auditable lifecycle replacement schedule rather than relying solely on the generic proposition that equipment is recyclable.

The ExA has now requested further evidence on precisely these assumptions. ExQ1 Q1.2.7 asks whether replacement PV panels and BESS units would have the same specification as those initially installed and, if not, how changes in technology, footprint or specification would be controlled through the DCO. ExQ1 Q1.16.3 separately requires justification of the principal assumptions underlying the construction, replacement and decommissioning waste forecasts, including PV and BESS replacement rates, recovery rates and recycling rates. Q1.16.4 then asks what confidence can presently be placed in the replacement and decommissioning conclusions and requires identification of assumptions concerning future recycling infrastructure, treatment capacity and waste markets.

These questions are important because the waste conclusion depends on two different future assumptions: what equipment will actually be replaced, and what waste-management infrastructure will exist when that replacement occurs. A future technology may improve material efficiency or recyclability, but it may also change mass, chemistry, containment, transport classification or treatment requirements. The assessment should therefore be controlled by a defined reasonable worst-case replacement envelope rather than by assuming that future technology change will necessarily reduce the effect.

18.25 Battery waste and fire-damaged material

The battery-waste issue is more acute because the Scheme may replace the BESS up to five times. That creates repeated large-scale movements of battery equipment rather than a single end-of-life event.

The Environment Agency's Relevant Representation identifies precisely this gap. At EA22 it states that inadequate detail is provided concerning damaged and end-of-life batteries, expressly noting the possibility of up to five BESS replacements. It requires clarity as to how batteries will be removed and where they will be stored after removal pending lawful off-site disposal. (Environment Agency Relevant Representation, 4 June 2026, EA22.)

That concern is not answered simply by stating that battery materials are recyclable. A defective, leaking, thermally damaged or fire-damaged battery is not necessarily equivalent to an undamaged end-of-life unit entering an ordinary recycling stream. The oBSMP provides procedures for making defective units safe and removing them in appropriate containers, but Chapter 18 does not demonstrate that fire-damaged equipment would achieve the same >95% recovery assumption used in the ordinary waste assessment.

The distinction extends beyond the batteries themselves. EA24 warns that contaminants from a BESS or substation fire may remain within the aggregate drainage layer even after firewater has been removed. It requires arrangements for cleaning or replacing contaminated drainage components, managing contaminated washwater and protecting the impermeable liner during remediation. That potentially generates an additional incident-related hazardous waste stream which is not represented by the normal replacement figures.

The same applies to temporary storage and transport. The final arrangements need to distinguish ordinary end-of-life batteries from damaged, defective and fire-affected units and identify suitable containment, segregation, storage, specialist transport and receiving facilities. The existence of a future recycling market does not answer where an unsafe battery can lawfully and safely be held tomorrow if it has to be removed urgently today.

18.26 Decommissioning waste

Decommissioning produces the largest single waste stream in the assessment.

The Applicant estimates approximately:

- 143,000 m³, or 235,000 tonnes, of inert and non-hazardous C&D material;
- 43,400 m³, or 55,400 tonnes, of WEEE and BESS material, treated conservatively as hazardous for the assessment; and
- 21,300 m³, or 11,400 tonnes, of large electrical installations.

Within those totals are approximately 14,000 tonnes of metal mounting structures, 157,000 tonnes of aggregate/substrate, 60,400 tonnes of concrete foundations, 3,090 tonnes of cabling, 32,700 tonnes of PV-panel WEEE and 22,700 tonnes of BESS batteries and associated equipment. (APP/6.1.18, Table 18.20 and §18.5.135.)

Chapter 18 itself describes this as a ‘large quantum’ of waste. More importantly, it calculates that decommissioning East Pye alone would generate an annualised C&D stream equivalent to approximately 10.7% of Norfolk's present C&D waste-handling capacity. It describes that as a ‘substantial amount’ and a ‘major magnitude impact’ on Norfolk C&D handling capacity. (APP/6.1.18, §18.5.136.)

The ultimate conclusion nevertheless becomes slight adverse and not significant because the assessment assumes that aggregate and concrete will largely be recovered and that only a small proportion will reach landfill. Again, the finding depends upon successful recovery rather than upon a small underlying waste stream.

The assessment also does not represent complete physical removal of everything constructed for East Pye. The National Grid Substation and Grid Connection Infrastructure are expressly excluded from Scheme decommissioning and would remain. Cable removal is assumed in the waste calculation as the assessment worst case, but Chapter 18 acknowledges that the actual approach will depend on future policy and good practice. (APP/6.1.18, §§18.5.120–18.5.127.)

That distinction should remain explicit. ‘Decommissioning’ does not mean that the entire development necessarily disappears and the land is returned without residual infrastructure.

18.27 Recycling assumptions and future capacity

The decisive weakness in the long-term waste case is the repeated conversion of technical recyclability into assumed future treatment capacity.

Chapter 18 states that specialist regional or national PV recycling facilities are ‘expected to develop’ in response to future demand. It records current claims that 90–99% of glass and semiconductor material can be recycled or recovered, describes the UK lithium-ion recycling sector as developing, and reports an 80% recovery rate. It then anticipates that further private-sector facilities will emerge as the PV waste stream grows. (APP/6.1.18, §§18.5.103–18.5.106.)

Those propositions may prove correct. They are not evidence of secured capacity.

The same issue arises at decommissioning. Chapter 18 accepts that there are no reliable county recycling or landfill capacity forecasts for the earliest anticipated

decommissioning date of 2091. It therefore assumes that the sensitivity of those facilities in 2091 will be the same as in 2025 and suggests that technological advances may improve the result. (APP/6.1.18, §18.5.134.)

NCC's rejection of the equivalent landfill assumption is therefore important. The local waste authority expressly says that additional landfill cannot simply be assumed because geological constraints limit the locations in Norfolk where hazardous or non-hazardous landfill could be permitted. (NCC RR, §§4.88–4.90.)

The Applicant's own cumulative assessment demonstrates the consequence of this uncertainty. During coincident peak replacement of the major energy schemes, it predicts approximately 17,200 tonnes of residual WEEE and batteries reaching landfill even after applying the 95% recovery assumption. Because hazardous landfill is a very-high-sensitivity receptor, Chapter 18 finds a **moderate or large adverse cumulative effect which is significant**. The equivalent cumulative decommissioning scenario again produces a **moderate or large adverse significant effect** on hazardous-waste capacity. (APP/6.1.18, §§18.5.153–18.5.159.)

The proposed response is itself deferred: future Operational and Decommissioning SWMPs are to reassess capacity and, if necessary, coordinate different NSIP operators, stagger decommissioning, stagger hazardous-waste deliveries and secure temporary hazardous-waste storage. (APP/6.1.18, §18.5.160.)

That is a material finding. Chapter 18 does not demonstrate that cumulative hazardous-waste effects are non-significant. It identifies them as significant and relies upon future inter-project coordination, potentially many decades after consent, to manage them. ExQ1 Q1.16.5 now requires the Applicant to explain the evidential basis for the identified moderate adverse and significant effect on hazardous-waste capacity during operation and decommissioning, including the quantities and principal waste streams assessed, the facilities and infrastructure assumed to be available and the basis for concluding that residual effects would be appropriately mitigated. The ExA has therefore expressly identified the same issue: a significant capacity effect cannot be converted into an acceptable residual conclusion simply by assuming that future treatment capacity, markets or coordination arrangements will emerge when required.

Predicted recyclability is not demonstrated recycling capacity. A material can be technically recyclable and yet have no available treatment facility, economically viable route or spare capacity when the waste actually arises.

The Examination should therefore distinguish technical recovery potential from actual capacity, commercial availability, geographic availability, hazardous-waste capacity, transport distance and cost.

18.28 Decommissioning security and insolvency

The long-term waste case also assumes that an operator with sufficient resources will remain available to implement the waste hierarchy and fund removal at the end of the Scheme.

The July 2026 draft DCO Requirement 21 controls timing and process. It requires decommissioning within the 60-year period for the relevant solar works, notification to the planning authority and submission of a Decommissioning Environmental Management Plan before works commence. It does not, however, itself provide a project-wide ring-fenced fund, bond or escrow mechanism guaranteeing that the money required to carry out those works will exist when the liability crystallises.

That distinction is important. A legal obligation to decommission and the financial capacity to discharge that obligation are different things.

The ExA has now raised the same distinction in relation to Article 37, asking whether a transferee would have sufficient covenant strength to comply with the decommissioning requirements. That question addresses corporate ability to meet the obligation, but it does not by itself answer whether project-specific funds are ring-fenced and available if the responsible entity later fails.

The risk is not limited to the final year. Over 60 years the Scheme may undergo one wholesale PV replacement, up to five BESS replacement cycles, transformer replacement and potentially substantial incident-related waste management. At final decommissioning the Applicant itself predicts hundreds of thousands of tonnes of material requiring removal, processing, recovery or disposal.

Norfolk County Council raised this concern during statutory consultation. In considering the longevity of East Pye and the consequences if the project financially failed, the County Council considered that a financial bond would be needed to safeguard future generations. BEPS has separately developed a proposed model for ring-fenced, insolvency-protected financial security, indexed and periodically reviewed so that the decommissioning liability cannot simply be transferred to landowners, regulators or the public purse.

Producer responsibility does not resolve that entire liability. Chapter 18 relies appropriately on the WEEE regime for PV panels, but it also acknowledges that some large-scale fixed installations, including transformers within Project Substations, fall outside that WEEE treatment. Nor does a manufacturer's take-back obligation necessarily fund removal of foundations, aggregate, access infrastructure, contaminated material, site restoration or remediation following an incident.

BEPS therefore seeks a funded decommissioning security mechanism proportionate to the actual restoration liability. It should cover removal, lawful waste treatment, hazardous and fire-damaged material, contamination remediation and restoration, be protected against insolvency and be periodically reviewed against updated costs.

The issue is straightforward:

A decommissioning plan specifies what should happen. Financial security demonstrates that it can still happen if the undertaking responsible for the Scheme is no longer capable of paying for it.

Part F – Human Health

18.29 Human health: statutory and policy framework

The legal starting point is not disputed. Regulation 5(2)(a) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the EIA to identify, describe and assess appropriately the direct and indirect significant effects of the development on population and human health. Chapter 18 expressly recognises that obligation. (APP/6.1.18, §18.6.13.)

EN-1 similarly recognises health as a cross-cutting consequence of energy infrastructure. The Applicant's own policy review records that where a project has effects on humans, the ES should assess those effects for each relevant element, identify potential adverse health impacts and identify measures to avoid, reduce or compensate for them. EN-1 also requires attention to vulnerable groups and those who may be differentially affected.

The final assessment refers to ISEP/IEMA's 2022 guidance on both effective scoping of human-health assessment and determining significance, together with UKHSA/PHE health-impact guidance. (APP/6.1.18, §§18.6.14–18.6.16.)

The Scoping Opinion is equally important. PINS did **not** require East Pye to prepare a standalone Health Impact Assessment chapter. It accepted a cross-cutting approach, but expressly required the ES to set out potential health impacts during construction, operation and decommissioning clearly and to cross-reference their assessment across relevant topics including Landscape and Visual, Air Quality and Water Environment.

BEPS therefore does not contend that the absence of a standalone health chapter is itself a defect.

The final position of the specialist public-health consultee must also be recorded fairly. On 3 June 2026 UKHSA, responding also on behalf of OHID, stated that its February 2025 comments had been addressed, acknowledged that the ES had identified no matters capable of significantly affecting public health, and concluded that the development should not result in any significant adverse public-health impact. It therefore chose not to register an interest.

The remaining issue is consequently narrower: whether Chapter 18 transparently integrates all relevant receptor-specific and cumulative pathways and whether its no-significant-effect conclusion remains secure where other statutory consultees have identified unresolved technical matters.

The revised NPPF is consistent with that receptor-specific approach. Policy P3 requires development proposals to take account of likely effects, including cumulative effects, of pollution on health, living conditions and the natural environment, and specifically requires consideration of the sensitivity of the surrounding population, including groups such as children and older people who may be particularly vulnerable. It also requires adverse impacts from air, noise, artificial light, water, soil and other forms of pollution to be avoided where possible or mitigated to an acceptable degree. This does not create a separate health-impact methodology for the Scheme, but it reinforces the need to retain

vulnerable and differentially exposed groups within the assessment rather than relying solely upon population-wide averages.

18.30 What the Human Health Summary Statement actually does

The final Human Health Summary Statement is a substantial improvement on the PEIR approach. Norfolk County Council describes it as a ‘clear and accessible overview’ which improves transparency. (NCC RR, §4.77.) BEPS agrees that the final assessment should be judged on that improved document rather than the earlier consultation-stage material.

Chapter 18 establishes a health baseline across five MSOAs, covering approximately 45,200 people. It identifies an older-than-average population: approximately 28% are aged 65 or over. It also records relatively high disability and long-term-health-condition indicators and rural accessibility constraints. It expressly recognises children and young people, older people, persons with existing health conditions, low-income groups, people with long-term illness or disability and ethnic-minority groups as potentially more sensitive to particular direct or indirect effects. (APP/6.1.18, §§18.6.37–18.6.40 and 18.6.73–18.6.76.)

There is, however, an unexplained tension within the assessment. Immediately after identifying those vulnerabilities, paragraph 18.6.77 concludes that there are ‘no identified population-level sensitive receptors or vulnerable groups that require further consideration’ in the appraisal. The distinction may be intended to mean that vulnerable individuals and groups exist but do not constitute a population-level receptor of enhanced sensitivity. If so, Chapter 18 should explain that reasoning. As written, the conclusion sits uneasily beside the preceding paragraphs.

The Statement synthesises findings from Climate Change, Water Environment, Landscape and Visual, Transport and Access, Noise and Vibration, Air Quality, Socio-Economics, Soils and Agricultural Land, Ground Conditions and EMF. It also states that cumulative and in-combination effects have been considered. (APP/6.1.18, §§18.6.17–18.6.25.)

Its principal limitation is structural. For most pathways Chapter 18 inherits the environmental significance conclusion reached in the underlying technical chapter and then concludes that no significant health effect follows. Mental wellbeing is treated separately in the Equality Impact Assessment because, the Applicant says, there is no agreed robust EIA methodology or consistently applied significance threshold for mental-health effects. (APP/6.1.18, §§18.6.26–18.6.27.)

That approach is not inherently unlawful. But it creates an important examination question: where the underlying technical assessment is disputed or incomplete, the health conclusion which depends upon it cannot automatically be treated as settled.

That issue is now expressly before the Examination. ExQ1 Q1.6.1 asks the Applicant to explain how its approach accords with current ISEP guidance on population and human health and whether any health pathways have been

excluded because the Human Health Summary does not anticipate effects beyond those identified in the technical chapters. Q1.6.2 separately requires the Applicant to identify every human-health conclusion which relies upon future management plans, detailed design, operational controls or later-stage mitigation, and to explain how likely significant effects can nevertheless already be excluded. Those questions go directly to the structural limitation identified above. Where the health assessment inherits its conclusion from another technical chapter, confidence in the health conclusion can be no greater than the adequacy of the underlying assessment and the certainty of the mitigation on which it depends.

18.31 Air quality, dust, noise and construction disturbance

The Human Health Summary concludes that construction dust and traffic emissions will produce negligible changes at residential receptors once the Outline CEMP and other controls are applied. It similarly characterises construction noise as temporary and controlled through working hours and good practice, leading overall to negligible or minor adverse, non-significant health effects. (APP/6.1.18, §§18.6.251–18.6.256.)

BEPS does not duplicate the detailed objections made in Chapters 12 and 13. The relevant point for Chapter 18 is that the health conclusion depends upon those technical controls being delivered across an extensive, dispersed construction site and over the full construction programme.

Operational noise is more revealing. Chapter 18 acknowledges that the unmitigated assessment identified significant adverse effects from inverter noise during early-morning periods. Additional mitigation is therefore necessary and may include quieter inverters, acoustic enclosures, relocation or reorientation of plant and barriers; the detailed solution remains subject to further design. (APP/6.1.18, §§18.6.225–18.6.228.)

Even after mitigation, one residential receptor is predicted to remain up to 2 dB above background at night and 1 dB above background in the early morning, above the NOAEL although below the LOAEL. The resulting long-term effect is classified as minor adverse and not significant. (APP/6.1.18, §18.6.229.) NCC accordingly says that mitigation is essential and should be clearly defined and secured for every affected receptor. (NCC RR, §4.80.)

The health conclusion should therefore be conditional upon the actual mitigation required to achieve the modelled post-mitigation levels. A finding of no significant health effect should not become the mechanism by which the detailed noise controls necessary to achieve that finding are left unresolved.

18.32 Transport, severance and road safety

The transport-health pathway is also more complex than the phrase ‘low baseline flows’ suggests.

Chapter 11 predicts substantial percentage increases on some rural lanes. Fairstead Lane, for example, is assessed with an increase of approximately 116% in combined traffic in the relevant construction scenario. The Transport assessment calculates approximately 39 daily HGV movements on Fairstead Lane and 53 on Shotesham Road, but concludes that fear and intimidation effects remain non-significant because absolute traffic volumes are low and construction is temporary. (APP/6.1.11, §§11.8.14–11.8.17.)

That may be a valid EIA significance judgement, but the human-health assessment should not confuse a low baseline with absence of burden on the individual receptor. Rural residents, pedestrians, cyclists, horse riders and people with mobility limitations experience the actual vehicle movements, not the percentage significance category.

Chapter 18 recognises schoolchildren, older people and persons with mobility constraints as potentially differentially affected by traffic and accessibility changes. It relies upon the Outline CTMP and Public Rights of Way Management Plan to maintain access and concludes that effects on healthcare, education and other services will remain limited. (APP/6.1.18, §§18.6.130–18.6.148 and 18.6.254.)

There will nevertheless be temporary PRoW restrictions, some lasting longer than one month. NCC accepts that long-term closures are not proposed but recommends that temporary closures occur only where strictly necessary, with suitable alternatives and clear communication. (NCC RR, §4.82.)

The health question is therefore not simply whether the Transport chapter records an EIA-significant traffic effect. It is whether the combined consequences of additional HGVs, changes to quiet rural roads, PRoW restrictions, construction access and perceived safety reduce walking, cycling, riding or independent access for those groups most reliant on the local network.

18.33 Water quality and drinking-water receptors

Drinking water is the strongest example of why the health conclusion cannot be separated from unresolved technical evidence elsewhere in the ES.

PINS required the ES to identify private water supplies and assess impacts where significant effects could arise, noting that supplies existed within 250 m and that accurate locations and abstraction data were not then available.

The final Human Health Summary relies upon Chapter 9 to conclude that no significant residual health effect arises through the water environment. The Environment Agency's Relevant Representation, however, identifies outstanding deficiencies directly relevant to drinking-water protection.

At EA33, the Agency states that the residual-effects assessment considers water quantity for public and private supplies but omits water-quality impacts from spills and pollutants. Its stated consequence is that ‘residual risk of contamination of water supplies has not been considered’. It requires contamination impacts to be included for both public and private abstractions.

At EA34, the Agency says the Source Protection Zones are not accurately described. It confirms that the south-western Order Limits containing the BESS, National Grid Substation and Project Substations lie within SPZ3 and are approximately 500 m from SPZ1 of a public water-supply abstraction. It also says private groundwater abstractions should be treated as **High-sensitivity receptors**, rather than the lower sensitivity used in the assessment.

EA35 identifies potential underassessment of pathways between historic contamination and private or permitted abstractions. EA36 requires Foundation Works Risk Assessments and hydrogeological assessment because deep foundations and trenchless drilling may create preferential pathways through superficial deposits into the Principal Aquifer. (Environment Agency RR, 4 June 2026, EA33–EA36.)

These are not objections about public perception. They concern the technical assessment of potable-water receptors.

Accordingly, Chapter 18's health conclusion should be revisited or expressly made conditional upon resolution of EA33–EA36. A public or private drinking-water source is not protected merely because the overall population-level health assessment is non-significant. The relevant question is whether that particular source-pathway-receptor linkage has been demonstrated to be acceptably controlled.

18.34 BESS fire and toxic emissions

The same distinction applies to BESS fire.

UKHSA/OHID has not identified a significant population-level public-health effect. BEPS does not dispute that evidence. The Applicant's own plume modelling nevertheless identifies receptor-specific exceedances which require active emergency management.

As set out at section 18.9 above, the sensitivity scenario predicts exceedances of the selected Air Quality Assessment Levels at Tivetshall St Margaret FP3 and Great Moulton Restricted Bridleways 18 and 19. At the worst modelled point, one-hour HF reaches 125% of the relevant AQAL, four-hour HF 196%, eight-hour CO 176% and eight-hour HF 282%. No equivalent residential AQAL exceedance is predicted.

That distinction should be retained. The evidence does **not** show a significant residential population-health effect. It does show that persons lawfully using particular public rights of way could be within a modelled exceedance area during the selected BESS-fire scenario.

The oBSMP proposes that the operator may seek temporary closure of affected routes according to wind direction. The health and safety question is therefore operational: how rapidly can those routes be closed, how will persons already on them be warned or removed, who has authority to implement closure, and how is that response coordinated with emergency services?

A population-level ‘not significant’ conclusion does not answer those receptor-specific questions.

18.35 Electromagnetic fields

EMF is one area where the final application has materially answered the Scoping Opinion. PINS declined to allow EMF to be scoped out because the final cabling and potential 400 kV infrastructure were uncertain and required assessment of human and ecological receptors.

Chapter 17 now assesses the Scheme against the 1998 ICNIRP reference levels of 100 µT for magnetic fields and 5 kV/m for electric fields. Chapter 18 reports a maximum magnetic field of 95 µT at 1 m above the 400 kV underground cable centreline and 81 µT at the minimum-clearance point beneath the existing/diverted 400 kV overhead line. External electric fields from underground cables are screened by their construction, while the overhead-line design relies upon a minimum 15 m setback to keep public exposure below 5 kV/m. The resulting effect is classified as Minor and Not Significant. (APP/6.1.18, §§18.6.219–18.6.223.)

BEPS should not assert that those values breach the ICNIRP limits. They do not.

However, Chapter 18 later describes the predicted EMF levels as ‘well below’ the ICNIRP reference limits. For the modelled underground cable maximum, 95 µT is 95% of the 100 µT reference level. ‘Below’ is accurate; ‘well below’ is not a useful description of that particular worst-case result.

The examination issue is therefore one of securing the assessed envelope. The final cable configuration, loading, burial geometry and separation from receptors must remain within the assumptions used to produce the 95 µT result, and the 15 m overhead-line setback relied upon to meet the electric-field reference level must be enforceable. If later detailed design could increase the maximum field above the assessed envelope, the present health conclusion would no longer answer the consented scheme.

18.36 Mental wellbeing, landscape change and community effects

Mental wellbeing is the area in which the Applicant's documents themselves show the greatest residual uncertainty.

Chapter 18 accepts that large infrastructure projects can affect mental wellbeing through environmental change, disruption, uncertainty and concern about risk. It does not itself apply an EIA significance assessment to mental-health outcomes, explaining that there is no agreed robust methodology or consistently applied significance threshold. Instead, the detailed qualitative consideration is placed in the Equality Impact Assessment. (APP/6.1.18, §§18.6.26–18.6.27.)

That EqIA does not conclude that there is no issue. NCC quotes its conclusion that:

‘there is concern regarding the long-term potential mental health impacts of the scheme, particularly regarding elderly and more vulnerable populations’.

The identified pathways include access to nature, visual amenity and attachment to place, fears about fire and community safety, cumulative effects of concurrent schemes and concerns over housing and business values. NCC considers that some residual effects on local populations are likely to remain and asks for a more proactive, outreach-based approach rather than reliance upon passive email and telephone contact. (NCC RR, §§4.78–4.79.)

Chapter 18 itself reaches an important finding at §18.6.258: landscape character and visual amenity are the **principal operational pathway** through which health effects may arise, particularly through mental wellbeing, sense of place and perceived environmental quality. It recognises that environmental quality is especially relevant in this rural area and particularly for older residents.

That should be considered alongside the Landscape and Visual assessment, which identifies significant adverse effects that remain at multiple receptors and locations even after mitigation. A significant landscape effect does not automatically produce a significant clinical health effect, but neither can it be translated into ‘no significant health effect’ merely by pointing to future planting.

The final WR should therefore ask the Applicant to explain the bridge between the two conclusions: how admitted long-term significant transformation of the landscape, together with the EqIA's acknowledged concern over vulnerable residents and attachment to place, has been evaluated before reaching the final conclusion that health and wellbeing effects remain minor or negligible.

18.37 Vulnerable and differentially affected groups

Chapter 18 contains a sufficiently detailed baseline to identify differential vulnerability.

Approximately 28% of the study-area population is aged 65 or over. The assessment also records disability and rural-access constraints and expressly recognises children and young people, older people, persons with respiratory or cardiovascular conditions, people with mobility limitations, low-income households and persons with long-term illness or disability as potentially more sensitive to direct or indirect effects. (APP/6.1.18, §§18.6.73–18.6.76.)

Those vulnerabilities do not operate uniformly across the 45,200-person health-study area. Exposure is highly localised. Examples include:

- residents living immediately beside construction and HGV routes;
- children and other vulnerable users of nurseries, schools or rural roads;
- older or mobility-impaired residents dependent on local roads and PRoWs;
- households and businesses dependent upon private groundwater supplies;
- walkers, cyclists and equestrians using affected PRoWs and lanes;
- persons using the PRoWs identified in the BESS plume sensitivity assessment; and
- residents experiencing the greatest landscape, noise or construction effects.

The health assessment should therefore avoid allowing a large population denominator to dilute a concentrated effect on a small receptor group.

This is particularly relevant to paragraph 18.6.77, which concludes that no population-level sensitive receptor or vulnerable group requires further consideration immediately after paragraphs 18.6.73–18.6.76 identify precisely such groups. The Applicant should explain whether this means merely that no entire MSOA is classified as highly vulnerable, and, if so, demonstrate how smaller vulnerable receptor populations are retained in the assessment.

UKHSA/OHID's final response is relevant here. Its earlier concerns, including those concerning temporary-worker accommodation, were considered by UKHSA/OHID to have been addressed. BEPS should therefore not present those matters as unresolved public-health objections. The remaining issue is the treatment of localised groups for whom exposure may be materially different from the population average.

18.38 Overall human-health conclusion

The final human-health case should be presented fairly. UKHSA/OHID reviewed the application, considered its earlier comments addressed, identified no issue likely significantly to affect public health and concluded that East Pye should not result in a significant adverse public-health impact. Norfolk County Council likewise describes the Chapter 18 summary as clear and accessible.

BEPS does not seek to replace those professional public-health conclusions with an unsupported assertion of population-wide harm.

The remaining objection is more precise.

First, Chapter 18's integrated health conclusion is derivative: it depends upon the technical conclusions in the Water, Transport, Air Quality, Noise, Landscape, Ground Conditions and EMF assessments. Where those conclusions remain subject to material regulatory challenge, the corresponding health conclusion is not automatically secure. The Environment Agency's EA33–EA36 objections concerning drinking-water receptors are the clearest example.

Secondly, some effects are receptor-specific rather than population-wide. The Applicant's own BESS modelling identifies AQAL exceedances on three PRoWs. The final noise assessment leaves one residential receptor above the NOAEL during night/early-morning periods. Temporary PRoW restrictions affect particular users. Those effects may remain non-significant in EIA terms, but they should not disappear into an overall population-health conclusion.

Thirdly, the Applicant's own EqIA identifies concern about long-term mental-health effects, especially among elderly and vulnerable residents, while Chapter 18 recognises landscape change as the principal operational health pathway. NCC considers that residual community impacts are likely. That evidence requires acknowledgement in the final health conclusion even if it does not cross the threshold of an EIA-significant population-health effect.

Fourthly, the treatment of vulnerability requires clarification. Chapter 18 identifies an older population, disability and accessibility constraints and several categories of vulnerable people, but then concludes that no population-level vulnerable group requires further consideration. The assessment should demonstrate that localised vulnerable groups have not been averaged out by the broad study-area baseline. Accordingly, BEPS's position is:

UKHSA/OHID did not identify a significant population-level public-health effect. BEPS's remaining concern is whether the ES transparently integrates receptor-specific, differential and cumulative health pathways where subsequent technical evidence identifies PRoW exposure during a BESS incident, unresolved drinking-water pathways, residual noise effects and acknowledged long-term mental-wellbeing concerns.

The ExA has now separately questioned both parts of this methodology. ExQ1 Q1.6.1 asks the Applicant to explain how the Human Health Summary's statement that it does not anticipate effects beyond those identified in the technical chapters accords with current ISEP guidance, and whether any health pathways have thereby been excluded. Q1.6.2 asks the Applicant to identify every health conclusion dependent upon future management plans, detailed design, operational controls or later-stage mitigation and to explain how significant population and human-health effects can already be excluded. Those questions go directly to the derivative structure identified above: where a health conclusion depends upon an underlying technical assessment or future mitigation, the health conclusion can be no more secure than that evidence and control.

The appropriate remedy is not necessarily a new standalone HIA. The ExA should require a consolidated human-health schedule identifying each relevant pathway, the exposed population or receptor group, the underlying technical assessment, the significance conclusion, residual uncertainty, mitigation and the precise DCO mechanism by which that mitigation is secured. That would allow the final conclusion of no significant adverse public-health effect to be tested against the actual evidence rather than treated as a freestanding assertion.

Part G – Other matters and cross-cutting assessment

18.39 Lighting

The treatment of lighting illustrates the distinction between removing a topic as a standalone ES chapter and removing the environmental effect from consideration. PINS expressly accepted that a separate lighting chapter was unnecessary, but did **not** agree that lighting could be scoped out entirely. It required lighting effects to remain within the relevant environmental topics. More specifically, in its Landscape and Visual comments PINS found that insufficient information had been provided to exclude effects on night-time views and required the ES either to assess effects on landscape, visual and ecological receptors or demonstrate that no likely significant effects would occur. PINS

specifically required consideration of intermittent sources such as motion-activated security lighting.

This was important because the Applicant's own Scoping Report anticipated several materially different lighting sources. Construction and decommissioning may require temporary artificial lighting during periods of darkness; operational solar arrays are not intended to have permanent lighting, but substations, ancillary infrastructure and the BESS may require security and maintenance lighting. The Scoping Report proposed motion-sensor lighting, shielded low-intensity downlighting and no lighting attached to perimeter fencing. It also promised a standalone Lighting Strategy dealing with light spill, nearby properties and ecological and heritage receptors, to be secured through the DCO. South Norfolk Council's Environmental Management Officer subsequently questioned reliance on motion-sensing lighting and recommended actively controlled lighting used by security personnel monitoring the site through infrared CCTV.

The final application has improved the position. Chapter 18 cross-refers to the Lighting Strategy, and the Outline CEMP, OEMP, DEMP and LEMP contain or support lighting controls. Ecological assessment and management measures also address sensitive habitats and bats. That is the correct general approach.

The remaining concern is security of delivery. The Revision 2 draft DCO authorises lighting columns and lighting within several works, including security infrastructure and temporary compounds. Requirements 13 and 14 secure the CEMP and OEMP and Requirement 21 secures the DEMP. However, the Lighting Strategy itself does not appear as a separately identified certified document in Schedule 12 or as the subject of a discrete requirement. Given that PINS specifically required lighting to remain part of the environmental assessment, the Applicant should identify precisely how every material commitment in APP/6.3.7.11 is made enforceable.

That matters across several receptors. Construction lighting must be controlled from the outset, including winter working periods. Operational and emergency BESS/substation lighting must avoid unnecessary activation and spill. Ecological controls must protect dark hedgerows, woodland edges and established bat routes. Residential lighting effects must remain within the assessed envelope throughout the 60-year operational period. Temporary replacement and decommissioning lighting require equivalent controls. Where new pylons, substations or temporary high-level lighting occur close to low-level aviation activity, the lighting strategy should also be checked against the aviation safety case.

BEPS does not contend that lighting requires another standalone ES chapter. It does contend that a mitigation strategy expressly relied upon to demonstrate insignificant effects must be identifiable, binding and applicable to every phase of the development.

18.40 Minerals

Minerals is one of the areas in which the final application has materially answered the Scoping Opinion.

At scoping, the Applicant proposed to exclude minerals because less than 10% of the Site was thought to overlie safeguarded sand and gravel and because prior extraction was considered commercially impractical. PINS disagreed. It expressly required the ES to assess the loss of access to mineral resources over the Scheme's lifetime and required that assessment to be informed by consultation with the Mineral Planning Authority.

The final application has done substantially more. Mineral safeguarding is assessed in Chapter 16 Ground Conditions and Appendix 16.2 Mineral Resource Assessment, rather than principally in Chapter 18. The assessment identifies the underlying geology by sub-site and Cable Route Corridor and estimates the potentially safeguarded resource. It concludes that minerals beneath solar fields would be inaccessible during operation but that this sterilisation would be temporary, ending following decommissioning after 60 years. The BESS, National Grid Substation and Point of Connection are stated not to overlie safeguarded mineral resource.

Most importantly, Norfolk County Council has now reviewed that work in its capacity as Mineral Planning Authority. Its Relevant Representation at §§4.83–4.89 records engagement with the Applicant, accepts that driven or screw-mounted panel foundations would have minimal effect on the underlying resource, accepts the assessment of temporary sterilisation, and concludes expressly that mineral resource safeguarding has been ‘correctly addressed’. NCC also accepts post-consent ground investigation informing reuse of material excavated from the cable corridor.

BEPS should therefore not maintain a broad objection that the Applicant has failed to comply with PINS's minerals requirement. On the current evidence, that would be unsustainable.

The residual point is one of implementation. The agreed approach depends upon excavation arisings being characterised and suitable mineral material being reused where practicable rather than unnecessarily exported or disposed of. Those measures should remain clearly secured through the CEMP, Soil Resource and Management Plan and Site Waste Management Plan. Subject to that safeguard, mineral sterilisation is not a principal outstanding Chapter 18 objection.

18.41 Television and telecommunications

PINS did not accept the Applicant's original proposal simply to scope out telecommunications, television reception and utilities. It required receptors to be identified through consultation and desk study and required any necessary diversions to be located and described, together with mitigation and assessment where significant effects could arise.

The final Chapter 18 substantially responds. For telecommunications, the Applicant has undertaken a desk review and initial statutory-undertaker consultation. Chapter 18 acknowledges that diversion of the existing 400 kV overhead line will require associated fibre-optic cables to be rerouted or extended. Significantly, however, §18.3.19 states that the **full details of telecommunications diversions will only be defined at detailed design stage**, with further consultation thereafter. Construction risks to underground or

overhead telecommunications are then controlled through protection zones, ground-penetrating radar, crossing techniques, the Outline CEMP and protective provisions.

That is not necessarily improper detailed-design deferral, but it means the no-significant-effect conclusion depends upon successful later resolution of those interfaces. The DCO and protective provisions must therefore ensure that no affected works proceed until the relevant apparatus owner has approved the necessary protection or diversion arrangements.

The television position is materially less contentious. Chapter 18 records that the nearest identified television transmitter is approximately 7.7 km north-west of the National Grid Substation and Point of Connection and identifies no transmitter within the Order Limits. The Applicant concludes that the predominantly low-level development, notwithstanding the grid infrastructure, will not cause a significant reception effect. BEPS has identified no technical evidence demonstrating otherwise.

A proportionate safeguard would nevertheless be a simple investigation and rectification procedure for any verified Scheme-related television or telecommunications interference arising after commissioning. That would close the residual evidential gap without overstating a presently unproven impact.

18.42 Railway interaction

BEPS's earlier consultation-stage concerns regarding the Norwich–Diss railway should now be narrowed in light of the final evidence.

First, glint and glare is not presently demonstrated to be a railway issue. The Glint and Glare Assessment applies a 500 m railway study area and identifies no railway receptor within that assessment distance. The earlier Scoping Report similarly recorded the active railway approximately 1.9 km west of Site 4 and approximately 2.1 km west of Site 2. There is therefore no evidential basis for asserting a significant railway glare effect merely because the railway lies within the wider project locality.

Secondly, the final BESS material does now assess smoke visibility at the railway. The fire-emissions assessment models five receptors on the Norwich–Diss line between approximately 990 m and 1,170 m from the worst-case initiating BESS unit. In the sensitivity scenario it predicts visibility distances of approximately 8.75–9.84 km and concludes that these remain within applicable road and rail stopping-distance criteria. The report itself notes that the calculation is indicative because visibility also depends on meteorological conditions and time of day.

Thirdly, Network Rail was included by PINS amongst the statutory undertakers formally consulted at scoping. BEPS has not identified, from the materials presently reviewed, an outstanding Network Rail objection to the final Scheme.

The position should therefore not be overstated. BEPS does not rely upon speculative claims of railway blast damage, electromagnetic signalling failure or structural effects where no direct interface has been demonstrated. The remaining examination task is simply to establish whether the final cable route, drainage system, access arrangements or other authorised works create any

direct interface with Network Rail land or apparatus and, if so, whether the necessary asset-protection arrangements are secured. The BESS emergency plan should also preserve the railway-notification arrangements assumed by the plume and visibility assessment.

The railway remains part of the wider infrastructure context, but on present evidence it is not one of the strongest freestanding objections to Chapter 18.

18.43 Cybersecurity, crime and security

Cybersecurity should similarly be kept within its proper scope.

Chapter 18 expressly recognises that solar and storage systems rely upon inverters, communications and utility control and automation systems and that this creates vulnerability to both conventional and cyber threats. It also identifies vandalism and arson as potential causes of injury or fire. The Applicant proposes construction and decommissioning security through fencing, secure materials storage and security personnel, operational security through CCTV and permanent fencing, and repeated security risk-management threat assessments undertaken by suitably qualified persons.

BEPS therefore should not contend that cybersecurity or physical security has been ignored.

Its planning relevance is narrower. Cybersecurity matters environmentally where safety-critical functions depend upon digital systems: battery monitoring, fault detection, alarms, automatic isolation, shutdown, drainage isolation or remote emergency control. The final system-specific BSMP and Emergency Response Plan should demonstrate that those safety functions remain effective under loss of communications, loss of power or control-system failure and that adequate manual or fail-safe capability exists.

That does not require publication of operationally sensitive security information. It requires assurance that the safety case does not assume that digitally controlled protection will always remain available. Cybersecurity is therefore relevant as part of the resilience of the BESS safety system, not as a freestanding planning objection.

18.44 Combined effects and interdependencies

The principal weakness of assessing these matters in separate technical compartments is that several of the Applicant's own mitigation measures depend upon another environmental system working as intended. These are not remote ‘domino’ scenarios; they are practical interdependencies disclosed by the application itself.

The clearest example is BESS firewater. The safety case depends upon fire detection, drainage isolation, impermeable containment, adequate storage and later lawful disposal operating together. The Environment Agency identifies what happens when those systems are considered collectively. EA23 warns that delays in obtaining an appropriate disposal route could leave contaminated firewater in the drainage system while further rainfall occurs, creating a risk that

containment is overwhelmed. EA24 then identifies residual contamination within aggregate drainage material even after liquid firewater is removed and requires a means of cleaning or replacing contaminated material without damaging the impermeable liner. EA20 raises equivalent containment concerns for substation firewater. This is therefore a combined pathway of **fire + firefighting water + rainfall + containment capacity + disposal delay**, not five unrelated topics.

That pathway then intersects with groundwater. EA34 confirms that the south-western Order Limits containing the BESS, National Grid Substation and Project Substations lie within SPZ3 and approximately 500 m from SPZ1 of a public-water abstraction, while requiring private groundwater abstractions to be treated as high-sensitivity receptors. A containment failure is consequently not simply a drainage event; it is potentially a drinking-water pathway.

The Applicant's own plume modelling provides another direct interaction: **BESS fire + wind direction + PRoW use**. No residential AQAL exceedance is predicted, but three PRoWs experience modelled exceedances in the sensitivity assessment. The response depends upon emergency warning and potential temporary closure of the route. The environmental conclusion therefore depends upon an operational access-management response occurring rapidly enough to protect persons already present.

Other interdependencies arise directly from the design. High-voltage electrical infrastructure and the FM05 National Gas Transmission pipeline occupy the same wider development area, and NGT has identified potential interference with its cathodic-protection system from high-voltage cables, pylons, BESS and PV arrays. NGT requires controlled crossings, minimum separation, risk assessment, supervision and protective provisions. Construction effects cannot therefore be assessed independently of existing utility constraints.

The same principle applies to road glare: reflection geometry depends upon panel technology and orientation, but the predicted effect also depends upon road alignment, driver position and whether existing or proposed vegetation actually screens the panel at the relevant time. At Tibenham, glare cannot be divorced from circuit geometry, low-level flight, EFATO and forced-landing constraints. During operation and decommissioning, repeated BESS replacement cannot be separated from hazardous-waste capacity. Final decommissioning cannot be separated from the financial capacity of the entity required to undertake it.

The Examination should therefore test these dependencies as systems. A mitigation measure should not be treated as reliable merely because it appears somewhere in a separate management plan.

18.45 Cumulative effects across Chapter 18 topics

The application correctly distinguishes cumulative effects with other developments from in-combination effects generated by different aspects of East Pye itself. That distinction was already established in the Applicant's Scoping Report, and PINS required the Applicant to seek agreement with the relevant LPAs on the cumulative-schemes list and to map the location and extent of those developments.

The final cumulative assessment is materially broader than the PEIR. Norfolk County Council acknowledges that the ES now identifies major projects including Norwich–Tilbury, but remains concerned about the concentration of energy infrastructure in South Norfolk and particularly the proximity of the emerging Tasway Energy Park. NCC identifies three other major Norfolk solar NSIPs — Tasway, The Droves and High Grove — and calculates that, together with East Pye, the projects would affect more than 4,750 ha of agricultural land. NCC describes the resulting pattern as cumulative and clustered development rather than isolated projects.

For Chapter 18, three cumulative pathways are particularly important.

The first is hazardous waste. Here the Applicant's own assessment already identifies a significant effect. At the assumed peak replacement scenario, Chapter 18 estimates approximately 17,200 tonnes of residual WEEE and waste batteries would require landfill following the assumed 95% recovery rate. Because hazardous-waste landfill is assessed as a very-high-sensitivity receptor, §18.5.154 identifies a **moderate or large adverse cumulative effect which is significant**. A significant cumulative effect is again identified for decommissioning. The proposed response includes future reassessment, inter-project coordination and potentially staggering waste deliveries or decommissioning. These significant findings must remain visible in the overall conclusions; they cannot be reduced to a general statement that Chapter 18 produces no significant cumulative effect.

The second is transport, glare and operational exposure. East Pye places arrays beside several A, B and minor roads, while other solar and grid projects will use parts of the same rural highway network. The relevant cumulative question is not simply whether two projects produce glare at the identical second. It includes the repeated transformation of a journey through multiple solar landscapes, combined construction traffic and the increasing dependence on vegetation to separate reflective infrastructure from highway users.

The third is aviation. East Pye, Norwich–Tilbury and other energy developments do not create identical aviation effects, but they may affect the same operational receptor. For Tibenham, the proper cumulative question is whether the combined development environment progressively removes emergency options or introduces obstacles, reflective surfaces and other constraints around low-level operations. A conclusion that there is no cumulative effect merely because a pylon, solar array and substation affect aircraft in different ways would be too narrow.

The overall issue is therefore not whether every other development produces the same mechanism as East Pye. It is whether the same road, waste facility, landscape, community, water receptor or aerodrome is being asked to absorb several effects from several developments.

Part H – Evaluation

18.46 Application of the mitigation hierarchy

Chapter 18 demonstrates very different approaches to mitigation across different receptors. Those differences are important because they reveal where risks have genuinely been designed out and where they are instead being passed forward for operational management.

Avoid. Seething provides the clearest example. The Applicant altered the layout and removed solar development from land in response to forced-landing concerns. The relevant hazard was therefore reduced at source by changing the physical development. That is genuine avoidance.

The same approach is much less apparent at Tibenham. The Applicant accepts that development removes or affects areas which may otherwise provide emergency landing opportunities but principally relies upon the proposition that aviation operations can be ‘operationally accommodated’. The distinction is material. Operational accommodation requires the existing aviation activity to adapt to the development; avoidance changes the development so that the existing safety function remains available.

Road glare shows a similar hierarchy. Where reflections are predicted, the principal response is often existing vegetation or proposed planting rather than removing or reorienting the panels responsible for the reflection. Screening can be legitimate mitigation, but it is reduction, not avoidance, and its effectiveness depends upon vegetation being present, sufficiently high and dense, retained, maintained and effective in the relevant season.

For BESS, substantial mitigation has now been developed: detection, separation, shutdown, suppression/firefighting arrangements, firewater containment and emergency planning. That is a significant improvement. But final battery chemistry, enclosure system, manufacturer-specific large-scale testing, final layout and parts of the consequence and emergency-response case remain to be resolved. The risk has therefore largely moved from **avoidance** to **engineering control and future management**.

Utilities follow the same pattern. The Scheme has not entirely avoided National Gas or National Grid infrastructure. Compatibility is instead to be achieved through detailed design, crossings, protective provisions, method statements and operator agreement. Waste is still further down the hierarchy: the underlying waste stream is accepted, with the case depending on future reuse, recycling and treatment markets. Final decommissioning is managed through a future DEMP rather than eliminated as a future liability.

This is not an argument that management-plan mitigation is inherently unacceptable. PINS itself recognised that detailed mitigation can appropriately be secured after consent. Its Scoping Opinion nevertheless required proposed mitigation to be agreed where possible with relevant consultation bodies and to be clear how it is secured through the DCO or another legal mechanism.

The central distinction should therefore be maintained:

‘Operational accommodation’ is not equivalent to avoidance, and a future management plan is not equivalent to eliminating the risk through design.

Where avoidance is feasible — particularly where the same Applicant has already used it elsewhere — the Examination should require an explanation for choosing management of a continuing risk instead.

18.47 Reliance on post-consent approval

A significant part of the final safety and environmental case remains dependent upon decisions to be made after consent.

For BESS, those matters include the final battery chemistry and manufacturer, enclosure and suppression configuration, system-specific large-scale fire testing, detailed HAZID/HAZOP/FMEA/LOPA work, final Fire Risk and Environmental Risk Assessments, updated plume or consequence analysis where the selected system differs from the modelled concept, detailed firewater design and the final Emergency Response Plan. The Outline BSMP itself says that the Applicant and future operator will work with NFRS during design development and that a site-specific Risk Management Plan will be developed post-consent. (NSIP Documents)

Utilities are similarly dependent upon detailed design. Chapter 18 expressly states that the final telecommunications diversions will be defined later. Gas and electricity crossings require operator approval, method statements and protective provisions. The final National Grid interface remains subject to the requirements of NGET.

Glare mitigation depends in places upon the final panel system and final vegetation. Waste management becomes increasingly deferred through the operational life: detailed replacement arrangements, receiving facilities, hazardous-battery handling and ultimately decommissioning waste capacity will be decided decades later. The DEMP itself is not required until shortly before decommissioning.

There is nothing unusual in reserving genuine construction detail. The important distinction is between **how an already-demonstrated acceptable development will be implemented** and **whether the development will be acceptable at all**.

Post-consent approval is appropriate for selecting the precise supplier, pipe diameter or contractor method within a tested envelope. It is much more problematic where the future decision determines whether a safety consequence propagates, whether containment can hold the necessary volume, whether an aviation objection can be resolved, whether utility works are constructible or whether the mitigation relied upon to reach a non-significant conclusion can actually be delivered.

PINS's overarching Scoping Opinion anticipated this problem. Where design flexibility remained, it required the application to set out the maximum parameters and explain how they had informed an adequate assessment. The same discipline should now be applied to Chapter 18. The DCO may retain

flexibility, but the **environmental envelope and minimum performance outcome must be fixed before consent**.

18.48 Security and enforceability of mitigation

This is particularly important because several Chapter 18 conclusions depend not simply on mitigation being proposed, but on it being legally delivered.

Revision 2 of the draft DCO now contains an identifiable framework. Requirement 6 prevents Work No. 2 from commencing until a Battery Safety Management Plan has been approved by the relevant planning authority, following consultation with Norfolk Fire and Rescue Service and the Environment Agency. Requirements 13 and 14 secure the CEMP and OEMP, with Environment Agency consultation. Requirement 21 requires an approved DEMP before decommissioning. These are material improvements.

However, the current drafting repeatedly requires final plans only to be **'substantially in accordance with'** their outline versions. The Environment Agency has directly objected to that formulation. EA4 states that the phrase undermines enforceability and creates unnecessary uncertainty because material on which the Agency has based its position could subsequently be weakened. Its requested solution is simple: remove 'substantially'.

That objection carries particular weight for Chapter 18 because the outline documents contain mitigation relied upon to justify non-significant effects. The issue is not linguistic tidiness. If firewater capacity, drainage isolation, pollution controls or battery-safety measures can materially depart from the assessed version while remaining arguably 'substantially' consistent with it, the chain between the ES conclusion and the development actually constructed becomes weaker.

The lighting position also requires clarification. The Applicant originally committed to a standalone Lighting Strategy secured through the DCO, and Chapter 18 continues to rely upon it. Yet the current Schedule 12 list of certified documents does not separately identify that Lighting Strategy. The Applicant should therefore identify the precise requirement and commitment by which its mandatory provisions are secured.

The same audit should be undertaken across Chapter 18. For each mitigation measure upon which a significance conclusion depends, the Examination should be able to identify the controlling document, DCO Requirement or protective provision, approving authority, mandatory consultee, approval timing and minimum compliance standard.

The test is straightforward: **if removal of a mitigation measure would change the environmental conclusion, that measure should not be capable of quietly disappearing at detailed design.**

18.49 Internal consistency and outstanding disputes

The final application has resolved some earlier deficiencies, but several important conclusions remain disputed by the bodies or operators directly affected.

For Tibenham, the Applicant's conclusion that the remaining aviation effects are capable of operational accommodation is not accepted by Norfolk Gliding Club, and the General Aviation Awareness Council has separately questioned the aviation-safety assessment. The disagreement is therefore not between the Applicant and an abstract objector; it concerns the judgement of the operator whose circuits, launch failures, forced-landing options and day-to-day operating environment are affected.

For water and BESS containment, the Environment Agency has identified a series of unresolved matters concerning substation firewater, BESS drainage isolation, contaminated aggregate, rainfall capacity, Source Protection Zones and drinking-water receptors. Those comments directly qualify the Applicant's reliance on final detailed drainage and safety design.

For National Gas Transmission, Chapter 18 concludes that utility effects can be controlled by protective provisions, yet NGT's own requirements demonstrate the level of detailed compatibility work involved. It identifies FM05 and associated cathodic-protection apparatus and expressly identifies high-voltage cables, pylons, BESS and PV arrays as potential sources of interference. It requires controlled crossings, separation, access, technical assessment and operator approval. Where NGT or NGET protective provisions remain unagreed, the issue cannot properly be recorded as resolved merely because draft provisions exist.

NGET's position similarly distinguishes development consent from the ultimate grid connection solution. Its Relevant Representation makes clear that consenting a particular National Grid Substation arrangement does not itself oblige NGET to connect the project in that form and that the wider Gate 2 process may affect the ultimate infrastructure requirement.

There is also a recurring internal design tension between fixed and tracker panels. The application seeks flexibility to use either, while the Glint and Glare Assessment demonstrates materially different reflection durations and geometry for the two systems and NCC has expressly preferred the lower fixed-panel option because of wider environmental effects. The environmental assessment must therefore constrain whichever option produces the relevant worst case rather than allowing the final technology choice to escape the assessment envelope.

These disputes should be treated as an examination schedule of unresolved matters, not submerged within broad conclusions of ‘no significant effect’.

Part I – Conclusion and relief

18.50 Overall conclusion

Chapter 18 and its supporting documents now contain substantial environmental assessment. BEPS does not maintain the consultation-stage proposition that these matters have simply been omitted. Several have been materially improved and some have, on present evidence, been satisfactorily addressed. Minerals is the clearest example: PINS required an assessment, the Applicant supplied one, consultation took place with the Mineral Planning Authority and NCC now considers mineral safeguarding correctly addressed. There is likewise no present evidence of a significant television-reception effect, and the railway issue has been materially narrowed by specific BESS smoke-visibility modelling.

The remaining concern is more fundamental than the number of pages supplied. It is whether the final conclusions are supported by sufficiently **project-specific, settled and enforceable** evidence.

For utilities, significant interfaces depend upon protective provisions, detailed crossing design and statutory-undertaker agreement. For BESS, the Outline BSMP represents a major improvement, but final technology, system-specific testing, detailed containment and emergency planning remain deferred, while the Environment Agency continues to identify unresolved firewater and groundwater issues. For aviation, the principal affected operator continues to dispute the Applicant's safety conclusion at Tibenham. For roads, the outcome depends upon panel technology, road geometry and vegetation, including at Site 4 where arrays lie on both sides of the A140. For waste, the Applicant's own assessment identifies significant cumulative hazardous-waste effects during peak replacement and decommissioning. For final restoration, there remains a distinction between imposing a duty to decommission and ensuring that funds will exist to discharge it. For human health, the population-level conclusion remains non-significant, but particular pathways affecting PRoWs, drinking-water receptors, noise receptors and vulnerable groups still depend upon the underlying technical assessments being resolved.

There is also a common pattern across those matters. Where the design creates a conflict, the proposed response is frequently future detailed design, screening, management, third-party accommodation or later agreement rather than physical avoidance.

The central Chapter 18 conclusion should therefore be:

Chapter 18 does not fail because it contains no assessment. It remains problematic because several of its key ‘not significant’ conclusions depend upon technology not yet selected, infrastructure interfaces not yet finally agreed, mitigation not yet fully designed, vegetation not yet established, future recycling capacity not yet existing, or operational accommodation not accepted by the affected operator. Those dependencies must be resolved or securely bounded before they can support the final planning balance.

That is particularly important because the Scoping Opinion was expressly based upon the information then before PINS; it was not a determination that later design changes, new evidence or unresolved statutory-consultee concerns could never require further scrutiny.

18.51 Remedies sought

BEPS asks the Examining Authority to require focused resolution of the outstanding matters rather than simply additional narrative.

Utilities. NGT and NGET protective provisions should be agreed in final form before the close of Examination, together with the technical principles governing crossings, clearances, cathodic-protection interference, access and construction beneath or adjacent to existing apparatus. No affected works should commence until the relevant statutory undertaker has approved the detailed method where its apparatus is engaged.

BESS safety and water protection. Requirement 6 should secure a genuinely system-specific final BSMP. Before BESS construction or energisation, the selected technology should be supported by applicable large-scale fire-test evidence and the final safety studies, consequence/plume assessment where required by the selected system, hydraulic firewater-containment design and Emergency Response Plan. EA and NFRS should remain mandatory consultees. The final drainage design must demonstrate containment of the reasonable worst-case firefighting and rainfall volume, automatic and manual isolation, post-incident cleaning, contaminated-aggregate management and lawful disposal.

Aviation. The outstanding NGC and GAAC concerns should be resolved through a site-specific operational safety assessment based upon the final Site 1 layout and infrastructure. The Applicant should explain the different mitigation approach at Seething and Tibenham. Where an aviation-safety conflict cannot be demonstrated to be acceptably accommodated by the affected operator, physical avoidance through removal, relocation or setback of infrastructure should be required.

Road glint and glare. The consented envelope should be demonstrated safe for whichever of fixed or single-axis tracking panels produces the relevant reasonable worst case. Site 4 and the north–south A140 require specific assessment because arrays lie on both sides of the road. The assessment should cover elevated HGV, bus and agricultural-vehicle eye heights, relevant minor rural lanes and junctions, construction accesses and Year 1 rather than mature-planting screening. Where panel technology, orientation or layout is critical to the conclusion, that parameter should be restricted through the DCO.

Lighting and telecommunications. The Applicant should identify the precise DCO mechanism securing the Lighting Strategy and make its material limits binding across construction, operation, replacement, emergencies and decommissioning. Any required telecommunications diversion should be agreed before the affected work commences. A proportionate investigation and rectification mechanism should cover verified Scheme-related television or telecommunications interference.

Waste and decommissioning. The Applicant should maintain an auditable whole-lifecycle material and waste balance covering construction, routine failure, PV replacement, repeated BESS replacement, fire-damaged material and decommissioning. Future SWMPs should reassess actual treatment and hazardous-waste capacity rather than assume capacity will emerge. Where staggering or inter-project coordination is relied upon to mitigate the Applicant's own significant cumulative hazardous-waste finding, a mechanism must exist to deliver it. A funded, ring-fenced and insolvency-protected decommissioning security should cover removal, waste treatment, contamination remediation and restoration throughout the Scheme's life.

Human health. The Applicant should provide a consolidated health-pathway schedule identifying the receptor or vulnerable group, underlying technical assessment, significance conclusion, outstanding uncertainty, mitigation and securing mechanism. This need not constitute a new standalone HIA; its purpose is to ensure that localised effects are not lost within a population-wide conclusion.

General mitigation control. Finally, BEPS asks for a single definitive mitigation schedule showing, for every measure relied upon to avoid or reduce a Chapter 18 effect, the source document, commitment number, DCO Requirement or protective provision, approving body, mandatory consultee, trigger point and minimum performance standard. The Environment Agency's objection to the repeated phrase ‘substantially in accordance with’ should be resolved so that final plans cannot materially weaken mitigation which underpins the ES conclusions.

If those matters cannot be resolved within Examination, the corresponding ‘not significant’ or ‘acceptable’ conclusion should not be assumed. The decision-maker should assess the Scheme on the basis of the effects and uncertainties that remain, rather than on the basis of mitigation which is still dependent upon future design, future agreement or future market capacity.

Chapter 19: Cumulative and In-Combination Effects

19.1 Executive summary and principal objection

Chapter 19 does not assess East Pye Solar as one functioning environmental system. It is principally a summary of residual conclusions already reached in separate Environmental Statement chapters. By the time those conclusions reach Chapter 19 they have already been filtered through topic-specific significance thresholds, embedded-mitigation assumptions, professional judgment and, in several cases, unresolved or deferred assessment. Chapter 19 therefore does not independently test the environmental consequences of the Scheme as a whole; it largely reproduces the assumptions and limitations of Chapters 6–18.

That is the central defect.

East Pye is not a compact development affecting a small number of discrete receptors. It comprises ten dispersed Sites, numerous Sub-Sites, approximately 24 km of cable corridor, a BESS, multiple project substations, a new National Grid Substation, overhead-line and pylon works, highway alterations, access and haul-road infrastructure, construction compounds and extensive temporary working areas. Those components repeatedly affect the same rural landscapes, villages, roads, soils, groundwater bodies, watercourses, ecological networks and heritage settings. The correct cumulative question is therefore not whether each component or topic can individually be reduced to a ‘minor’ or ‘not significant’ residual effect. It is what happens to the same receptor when those pressures are experienced together.

The Applicant’s methodology is poorly suited to answering that question. Chapter 19 expressly requires a residual effect to be Minor or greater before it is normally taken forward; excludes negligible effects from further consideration; assesses broad ‘receptor groups’ rather than every individual receptor; and states expressly that ‘the scale of the effect interaction has not been identified’. Significance is then determined either because one constituent effect was already significant or through professional judgment where individually non-significant effects are considered capable of interaction.

This structure creates several linked problems.

First, effects are filtered before interaction is tested. Numerous individually small effects can become environmentally important when repeated across the same receptor or network: hedge severances, intermittent lighting, traffic movements, noise events, small areas of soil compaction, temporary drainage changes or repeated construction disturbance. Excluding such effects because they have already been labelled negligible risks eliminating the very evidence required to determine their cumulative importance.

Secondly, Chapter 19 inherits every weakness in the underlying chapters. An under-assessed effect, omitted receptor, optimistic mitigation assumption or uncertain significance judgment does not become reliable merely because it is

subsequently entered into a cumulative table. BEPS has already identified this structural problem elsewhere in the Written Representation: an interaction omitted at source does not become assessed merely because the ES contains a later cumulative-effects chapter.

Thirdly, the grouping of receptors can conceal localised worst cases. A generic category such as ‘residents/users of the local area’ does not identify the particular household simultaneously exposed to a substation, construction route, lighting, landscape change and noise. ‘Ecologically-designated sites and priority habitats’ does not represent a maternity colony, connected hedgerow network, chalk-stream reach or great crested newt pond network. The environmental response of those receptors depends upon their specific spatial and functional relationships, not their membership of a broad category.

Fourthly, the methodology does not establish the spatial or temporal scale of interaction. That omission is particularly serious for a dispersed development whose effects may arise concurrently at multiple work fronts and recur during replacement, repowering and decommissioning. The number of simultaneous construction compounds, active haul routes, cable operations, HDD works, piling locations and illuminated nodes is capable of determining whether the receiving environment remains functional during construction. Yet Chapter 19 does not quantify that cumulative operational reality.

Fifthly, construction and decommissioning are largely grouped together on the assumption that decommissioning will usually be similar to or less harmful than construction. That assumption is not demonstrated. After approximately 60 years the ecological, climatic, agricultural, hydrological and development baseline will be materially different; mature mitigation planting may exist; soils may have changed; replacement infrastructure may have been installed; substantial waste streams will arise; and some grid infrastructure is intended to remain. Decommissioning is therefore not simply construction in reverse.

Sixthly, the assessment underplays the external cumulative context. South Norfolk Council, Norfolk County Council and the LLFA have all raised concern about the interaction of East Pye with other major energy and infrastructure developments, including Tasway Energy Park, Norwich to Tilbury, other solar and BESS proposals and Hornsea Three-related infrastructure. The LLFA specifically supported inclusion of proposed but unconsented schemes where overlapping programmes make cumulative effects reasonably foreseeable.
The Applicant’s mapping compounds that problem. Very large housing, solar, BESS and infrastructure projects are represented as point symbols rather than by their true landtake, red-line boundaries, linear corridors, access routes or zones of influence. A development occupying hundreds of hectares can therefore appear as one small dot. That representation cannot show whether schemes occupy adjoining landscapes, share roads, affect the same catchment, constrain the same bat population or alter the same heritage setting. It visually minimises the cumulative development pressure that the assessment is supposed to disclose.

The treatment of Tasway illustrates the wider inconsistency. Tasway remains a relevant proposed scheme, is described as paused rather than abandoned, and has been identified by both local authorities as requiring cumulative consideration. BEPS has also identified its functional relationship with the Great Moulton grid infrastructure. Yet the Applicant applies a stricter uncertainty

threshold to Tasway than to elements of its own Scheme. East Pye's BESS remains integral to the assessment despite its unresolved Gate 2 position and future delivery uncertainty, while uncertainty surrounding Tasway is relied upon to reduce its cumulative relevance. That is not a consistent precautionary methodology.

The same imbalance appears in the treatment of benefits. Chapter 19 attributes significant beneficial operational effects to ecological habitats and water quality through cessation of agricultural activity and reduced fertiliser and chemical use. Those benefits depend upon successful habitat establishment, long-term management, hydrological performance, mitigation durability, replacement impacts and the actual land-management regime over six decades. They are therefore predictions dependent upon future performance, yet are treated with greater certainty than many adverse risks for which the Applicant demands detailed proof before acknowledging significance.

The result is an assessment that fragments the Scheme before asking whether its effects combine. That reverses the proper analytical sequence. Receptors experience one development, not separate ES chapters.

The Applicant has therefore constructed an assessment methodology which systematically reduces the environmental information available before asking whether effects interact. The resulting predominance of 'not significant' conclusions is a product of that methodology, not evidence that the combined burden of East Pye is environmentally insignificant.

19.2 The correct cumulative assessment framework

A reliable assessment of East Pye requires three distinct but related forms of analysis. They should not be conflated because they answer different environmental questions.

19.2.1 Internal accumulation within East Pye

The first question is the accumulation of effects generated by East Pye itself.

This is particularly important because East Pye is dispersed across numerous Sites, Sub-Sites and linear corridors. Different components of the same authorised development can affect different parts of the same receptor network simultaneously. A project-wide assessment must therefore look beyond the significance assigned to each isolated component and examine their combined physical operation.

Examples include panels operating together with fencing, access tracks, substations and underground cabling across the same landscape; several construction compounds operating simultaneously; multiple active construction fronts; repeated hedgerow crossings; several sources of lighting; repeated use of the same rural road; and piling, trenching, drainage works and foundations affecting the same groundwater or catchment system.

The ecology evidence illustrates the problem clearly. Construction compounds can each generate hardstanding, runoff, lighting, noise, traffic, fuel storage and

human activity. One compound may lie beside a bat corridor, another beside a pond network and a third within the same sub-catchment. Individually they may be assessed as localised or temporary; together they can affect different components of one connected ecological system.

The same applies to lighting. The Scheme contains operational and construction lighting associated with substations, BESS infrastructure, compounds, accesses, security equipment and potentially HDD operations. Several individually compliant light sources may together divide a dark landscape into illuminated or intermittently illuminated barriers. For light-sensitive barbastelle bats, the cumulative loss of darkness along connected routes may be more important than the direct physical loss of any individual hedge.

Construction disturbance likewise operates cumulatively within the Scheme. Cable trenching, piling, HDD, highway works, vegetation removal, haul roads, compounds and access works may overlap spatially and temporally. The same woodland edge may experience noise, lighting, traffic and dust; the same watercourse may receive upstream runoff while also being affected by a crossing and adjacent construction activity. The relevant question is not whether every individual disturbance is temporary. It is whether the receptor remains environmentally functional while numerous temporary disturbances occur together.

The Applicant should therefore identify the maximum realistic number and location of simultaneous work fronts and assess internal cumulative effects against actual receptors: individual maternity colonies; pond networks; sensitive watercourse reaches; connected hedgerow systems; residential clusters; individual heritage settings; private water supplies; and constrained rural-road corridors.

BEPS has already identified this principle in the wider Written Representation: the ES is organised by topic, but the environment is not. Residents may experience visual change, noise, lighting, traffic and amenity effects together; heritage assets may experience setting, visual and construction effects together; ecological receptors may experience habitat change, disturbance and hydrological effects together; and watercourses may experience several construction and drainage pathways simultaneously.

That is internal cumulative assessment. It is not adequately captured by a table assembled from residual effects after those interactions have already been separated between Chapters 6–18.

19.2.2 External cumulative effects

The second question is the effect of East Pye together with other existing, consented and reasonably foreseeable development affecting the same receptors.

This assessment must be receptor-led rather than development-type-led. The relevant issue is not whether another proposal is another solar farm. It is whether another proposal affects the same landscape, road, waterbody, ecological population, heritage setting, labour market, settlement or community.

Relevant development therefore includes, where within the appropriate Zone of Influence:

- Tasway Energy Park;
- Norwich to Tilbury;
- The Droves and High Grove where their effects overlap relevant receptors;
- other solar and BESS proposals;
- Hornsea Three-related works and associated infrastructure;
- overhead lines, substations and other grid development;
- strategic and local housing development;
- highway works;
- and other infrastructure capable of generating overlapping environmental effects.

Norfolk County Council has identified an exceptional concentration of energy infrastructure in Norfolk and expressly referred to Tasway, The Droves, High Grove, Norwich to Tilbury and Hornsea Three-related works. South Norfolk Council likewise identifies Tasway, Norwich to Tilbury and other energy and TCPA developments as capable of producing cumulative landscape, ecological, community and economic effects. The LLFA supports inclusion of proposed but unconsented projects where overlapping construction programmes could affect the same drainage and flood systems.

The cumulative assessment must therefore follow the receptor.

For barbastelle bats, it should map all relevant development against maternity colonies, Core Sustenance Zones, woodland, hedgerows, commuting routes and feeding habitat.

For water, it should map development by catchment and groundwater pathway rather than project boundary.

For transport, it should identify schemes using the same A140, A47, village approaches, rural lanes and AIL routes.

For heritage, it should identify where several projects alter the same historic landscape or setting.

For residents, it should assess whether the same communities face sequential or simultaneous years of construction, landscape industrialisation and traffic disturbance.

For soils and agriculture, it should assess the geographical concentration of BMV land loss and temporary construction landtake.

The current point-symbol mapping does not permit that analysis. A 700 MW solar proposal, strategic housing site, pylon corridor or major BESS installation cannot meaningfully be represented as a single point if the purpose of the exercise is to understand spatial overlap. Actual footprints and corridors must be shown.

Tasway requires particular attention. It has not ceased to exist as a proposal merely because it is paused. It has been specifically identified by the local authorities as relevant to cumulative effects, and BEPS’ evidence identifies a

relationship with the wider Great Moulton grid infrastructure. The Applicant should either include Tasway within a main or sensitivity-case assessment or provide a clear, evidence-based explanation for exclusion which is applied consistently to its own uncertain project components.

External cumulative assessment is therefore not an optional background exercise. It is necessary to establish what South Norfolk will actually experience if East Pye is developed within the wider pattern of foreseeable housing, solar, storage and grid infrastructure.

At ISH1 the Applicant confirmed that it intends to submit an interrelationships report at Deadline 1 drawing together information on the proliferation of DCO and other relevant projects. The Applicant expressly described that document as not constituting a formal cumulative assessment in EIA terms. The ExA also questioned the initial intention to confine its scope to Norfolk, observing that administrative boundaries do not correspond to environmental effects, and asked the Applicant to engage with the host authorities over its scope. BEPS welcomes the production of that material insofar as it improves the evidence base, but it should not be treated as a substitute for the receptor-specific cumulative assessment required by the ES.

19.2.3 Cross-topic in-combination effects

The third question concerns different environmental pressures generated by East Pye acting upon the same receptor. This is the issue that Chapter 19 describes as ‘in-combination effects’. The correct starting point is the receptor, not the ES chapter.

A resident may simultaneously experience:

landscape change + operational or construction noise + lighting + HGV traffic + vibration + severance + loss of tranquillity.

A listed building or conservation area may experience:

visual intrusion + change to the historic agricultural landscape + construction traffic + noise + lighting + altered approach or experience.

A barbastelle maternity colony may experience:

hedgerow severance + lighting + construction noise + road traffic + loss or compression of foraging habitat + woodland-edge disturbance + hydrological change affecting prey availability.

A private water-supply user may experience:

pile-created groundwater pathways + trenching + contamination mobilisation + altered drainage + BESS or transformer pollution risk + firewater containment failure.

A PRoW user may experience:

visual industrialisation + fencing + construction noise + temporary closure or diversion + HGV interaction + loss of tranquillity + lighting.

A chalk-stream receptor may experience:

sediment mobilisation + runoff + HDD risk + groundwater change + cable effects + construction crossings + pollution from several upstream areas.

These combinations cannot be reconstructed reliably after the constituent chapters have already downgraded, mitigated or excluded individual effects. The combined assessment must test the actual receptor experience.

The Applicant's own screening methodology makes this particularly important because Chapter 19 does not assess every individual receptor and excludes effects below Minor before interaction is considered. The more that the underlying chapters fragment an effect into individually small elements, the greater the risk that the final receptor-level burden disappears from the cumulative assessment.

There is also a separate legal terminology issue which should be kept clear. For EIA purposes, Chapter 19 uses 'in-combination' to describe different environmental effects generated by East Pye acting on the same receptor, while 'cumulative effects' generally refers to effects of East Pye together with other development.

Under the Conservation of Habitats and Species Regulations 2017, however, 'in combination' has a separate and specific meaning: the effects of the project together with other plans or projects upon a European site and its qualifying features. The HRA question must therefore be considered under its own legal framework and should not be treated as satisfied merely because Chapter 19 has carried out an EIA effect-interaction exercise. BEPS' ecology evidence identifies this distinction expressly.

The same care is required in relation to European Protected Species. Effects on barbastelle maternity colonies and other EPS may be relevant to cumulative EIA, protected-species licensing and, where a qualifying European-site relationship exists, HRA, but those are legally distinct tests. A finding of 'not significant' in the Chapter 19 EIA matrix cannot determine whether an EPS licence is realistically grantable or whether an HRA in-combination pathway has been excluded.

The three levels of analysis must therefore remain distinct:

1. accumulation of effects generated by East Pye itself;
2. East Pye acting cumulatively with other plans and projects; and
3. different environmental pressures generated by East Pye interacting upon the same receptor.

Chapter 19 does not presently demonstrate that all three have been assessed comprehensively. Until they are, the Examining Authority cannot safely conclude that the cumulative environmental effects of the Scheme have been identified or that the repeated 'not significant' findings represent the true combined consequences of the development.

19.3 Chapter 19 cannot cure omissions in Chapters 6–18

Chapter 19 is only as reliable as the assessments which feed into it. It does not undertake a fresh receptor-led assessment of the Scheme. It reviews the residual effects already identified in Chapters 6–18 and asks whether those residual effects interact. That means any effect omitted, understated, scoped out or reduced prematurely in an underlying chapter is correspondingly absent or understated in Chapter 19.

This is a fundamental limitation because many of the most important East Pye interactions arise precisely where mitigation proposed in one discipline has consequences in another.

Landscape planting is the clearest example. Chapter 7 relies heavily upon new hedgerows, trees, woodland and scrub to screen solar and electrical infrastructure. Yet planting introduced to reduce visual effects may alter the openness and historic structure of the South Norfolk Claylands, affect the setting of heritage assets and reduce the suitability of open farmland for skylark, lapwing and other open-country birds. It cannot simply be counted as landscape mitigation, ecological enhancement and heritage mitigation without assessing those competing functions together.

The same problem arises with transport. If resolving highway objections requires new internal haul routes, passing places, visibility splays, road widening or vegetation removal, those measures may create additional effects on hedgerows, Roadside Nature Reserves, soils, drainage, watercourses, archaeology, heritage settings and residential receptors. Chapter 11 itself identifies unresolved cross-topic consequences from highway works. A transport solution is not environmentally neutral simply because it resolves a traffic problem.

Noise mitigation creates the same potential conflict. Relocating, reorienting or screening BESS, transformer or substation plant may reduce noise at one dwelling while moving infrastructure closer to a heritage asset, drainage feature, ecological corridor or another residential receptor. Acoustic barriers may themselves introduce visual and landscape effects. Chapter 19 cannot assume a reduced residual noise effect without establishing that the physical mitigation required to achieve it is environmentally compatible with the conclusions of the other chapters.

Drainage measures likewise occupy land and can change habitats, soils, archaeological conditions and hydrological pathways. Landscape mitigation may change agriculture. Ecological planting may alter heritage setting. Retaining habitat created during operation may prevent restoration of the former agricultural landscape. These are not incidental overlaps; they are the reason an EIA is required to assess the environment as a whole.

There is also a serious inconsistency in the future baseline. Landscape, ecology, heritage and agriculture do not all appear to assume the same post-decommissioning condition. Parts of the ES describe the development as temporary and reversible, while the landscape case assumes that mature

woodland, trees and hedgerows may remain and that National Grid infrastructure will remain in situ. If those features remain, the landscape has not returned to its existing agricultural condition. The ecological, heritage, agricultural and landscape assessments must therefore use one coherent end state. Volume 1 of this Written Representation identifies this as a substantive cross-topic inconsistency.

Socio-economic effects provide another example. Significant adverse landscape effects are established elsewhere in the ES, yet the consequences of prolonged landscape industrialisation for tourism, recreational experience, rural businesses and community wellbeing are not necessarily propagated into Chapter 14 with equivalent weight. Chapter 19 cannot compensate for that omission by combining only the residual socio-economic effects which Chapter 14 has already chosen to recognise.

The same principle applies throughout the ES. If ecological effects of lighting are omitted at source, Chapter 19 cannot recover them. If transport effects on heritage are not quantified, they cannot later appear in the heritage interaction. If groundwater contamination pathways are deferred to later investigation, Chapter 19 cannot establish their combined effect on private water-supply users. If replacement and repowering have not been fully assessed in the underlying chapters, their whole-life interactions cannot emerge in the cumulative table.

The correct principle is simple:

an interaction omitted at source does not become assessed merely because the ES contains a later cumulative-effects chapter.

Chapter 19 therefore cannot be treated as a cure for deficiencies elsewhere in the Environmental Statement. On the contrary, because it relies upon those preceding assessments, their unresolved uncertainties propagate directly into its conclusions.

The Examining Authority should therefore test every Chapter 19 conclusion against the underlying evidence and ask whether all relevant effects, mitigation consequences and receptor interactions were first identified correctly in Chapters 6–18. Where that has not occurred, the corresponding Chapter 19 conclusion cannot safely be relied upon.

19.4 The ‘Minor or greater’ screening threshold is unsound

Paragraphs 19.2.0–19.2.8 impose a further methodological filter. Chapter 19 only takes an effect forward where the residual effect is Minor or greater and there is another qualifying effect on the same receptor. Effects characterised as negligible are excluded from further consideration.

That approach is particularly inappropriate for East Pye.

The environmental risk created by a dispersed scheme does not arise only from a small number of individually large effects. It also arises from repetition. A single small hedge gap may be negligible. Numerous gaps across connected

flight routes may fragment a bat network. One low-level light source may be negligible. Several substations, compounds, accesses, vehicles and security installations may cumulatively erode a dark landscape. One short traffic interruption may be negligible. Repeated HGV movements, road controls and construction activities across several sites may materially affect the same village or rural lane.

The same applies to soils. One localised area of compaction may be limited; repeated compaction from haul roads, compounds, trenching, panel construction, maintenance and replacement across the same agricultural holding may materially affect drainage and soil structure.

For water, an individually small change to runoff, infiltration or groundwater movement may appear insignificant in one location. Repeated alterations across several micro-catchments, cable corridors, foundations and drainage systems may together change the quantity, timing or quality of water reaching the same downstream receptor.

For landscape and heritage, several minor changes can progressively erode the same rural setting. A solar field, a substation, a pylon group, a new access, screening vegetation and another nearby energy scheme may each be assessed separately at low magnitude while collectively transforming the character in which a settlement or heritage asset is experienced.

The ecological WR identifies the problem precisely:

The methodology risks excluding precisely the cumulative pressure created by a dispersed Scheme: numerous small hedge gaps, low levels of illumination, localised noise, repeated vehicle movements, small areas of compaction and multiple short-term disturbances.

That criticism applies equally to human, heritage, hydrological, agricultural and landscape receptors.

It is also circular to exclude an effect because it has already been classified as negligible when the purpose of Chapter 19 is to determine whether effects change in significance when experienced together. The fact that an effect is negligible **in isolation** does not establish that it is environmentally irrelevant when repeated or combined with other pressures on the same receptor.

The threshold is therefore capable of producing false negatives by design. The more a large scheme divides its environmental consequences into individually small components, the more likely those effects are to disappear before their cumulative significance is examined.

For East Pye, the appropriate question is not simply whether each constituent effect exceeds a predetermined individual threshold. It is whether the total pressure on the receptor changes its condition, function, character or experience. Chapter 19 does not demonstrate that this question has been answered.

19.5 The Applicant admits that it has not assessed the scale of interaction

Paragraph 19.2.3 contains an unusually important qualification:

‘The scale of the effect interaction has not been identified as part of this assessment.’

That admission materially weakens the Chapter 19 conclusions.

Scale is not an optional descriptive detail. For a cumulative assessment, it is often what determines significance.

The environmental consequence of an interaction depends upon questions such as:

- how many receptors experience it;
- how many East Pye Sites contribute to it;
- what proportion of a habitat or landscape is affected;
- how often the interaction occurs;
- how many construction fronts operate simultaneously;
- whether impacts overlap or follow sequentially;
- whether an alternative unaffected route or habitat remains;
- and whether the effect persists for days, years, decades or through repeated lifecycle phases.

Those questions are especially important for East Pye because of its geographic extent and fragmented layout.

For a barbastelle colony, the relevant scale may be the number of commuting routes affected across its Core Sustenance Zone, not the magnitude assigned to a single hedge crossing.

For a rural settlement, it may be the proportion of approaches and surrounding landscape affected by solar development, grid infrastructure and construction traffic, rather than the effect at one representative viewpoint.

For a road user, it may be the frequency and duration of conflict with HGV movements across several construction sites.

For a catchment, it may be the combined area of compacted ground, panel coverage, access tracks, trenching and drainage modification contributing to the same downstream system.

For agricultural land, it may be the cumulative area and duration of productive land removed from use and repeatedly disturbed.

For heritage, it may be the progressive change to an entire historic landscape surrounding several assets, rather than the isolated view from any one asset.

A Chapter 19 assessment which states significance without first identifying the scale of the interaction therefore omits one of the principal variables needed to justify that significance judgment.

That weakness is compounded by reliance upon professional judgment. Professional judgment is legitimate, but it must be applied to an adequately defined effect. It cannot substitute for the missing spatial and temporal description of that effect.

For a Scheme exceeding 1,200 hectares and extending through ten Sites, numerous Sub-Sites and approximately 24 km of cable corridor, the scale of interaction is central to the environmental question. The Applicant's express decision not to identify it materially reduces confidence in the repeated conclusions of no significant in-combination effect.

19.6 Broad receptor groups conceal actual worst cases

Chapter 19 does not assess every individual receptor. Paragraph 19.2.6 expressly states that it instead uses ‘receptor groups’, and paragraph 19.2.7 identifies four principal groups: residents and users of surrounding land uses; PRoW and walking-route users; heritage assets; and ecologically designated sites and priority habitats.

That degree of aggregation is too coarse for East Pye.

The significance of an in-combination effect depends upon the receptor's actual relationship with the development. A house next to one solar field is not equivalent to a house affected simultaneously by a construction route, a substation, lighting, noise and landscape change. A remote County Wildlife Site is not equivalent to a maternity woodland surrounded by cable works and solar development. A village footpath with one distant view is not equivalent to a promoted walking route passing through several development areas.

The assessment must therefore identify the worst-affected actual receptors, not simply the average experience of broad categories.

19.6.1 Worst-affected residential properties

The category ‘residents/users of the local area’ obscures material differences between households.

Some residential receptors may experience a combination of:

- major or substantial visual change;
- operational transformer or BESS noise;
- construction traffic;
- vibration;
- lighting;
- temporary access restrictions;
- loss of tranquillity;
- changes to water supply risk;
- and repeated disturbance during replacement and decommissioning.

The Applicant's own LVIA identifies significant effects around Site 1 and the BESS, including Major to Substantial Adverse effects for residential and local visual receptors around Great Moulton and Station Road. Yet Chapter 19 largely collapses these materially different experiences into one receptor group.

That prevents the Examination from identifying the actual residential worst case.

The Applicant should provide a receptor-by-receptor schedule for properties experiencing multiple effects, identifying every relevant environmental pathway and the combined temporal sequence.

19.6.2 Great Moulton and Site 1: the cumulative industrial nexus

Site 1 requires separate treatment because it is the clearest location where multiple project components and environmental constraints converge.

BEPS has already identified Site 1 as a ‘cumulative industrial nexus’. It must be considered together with the BESS, project substation infrastructure, proposed National Grid Substation, grid connection works, pylons and overhead-line infrastructure, cable corridors, access routes and surrounding development.

The receptor environment simultaneously includes:

- Great Moulton and nearby dwellings;
- the Principal Chalk Aquifer and Source Protection Zone;
- private water supplies;
- Tibenham Airfield and aviation safeguarding;
- the railway;
- major electrical infrastructure;
- agricultural land;
- landscape and heritage receptors;
- construction and AIL routes;
- and potential major-accident and contamination pathways.

The water WR further identifies the concentration of dual 400kV infrastructure, BESS, oil-filled transformers, impermeable hardstanding and firewater requirements above a sensitive aquifer and near private boreholes.

The question is therefore not whether each constituent Site 1 effect is acceptable in isolation. It is whether this concentration of electrical, transport, hydrological, aviation, agricultural and residential constraints creates an acceptable location for the Scheme's principal infrastructure hub.

Chapter 19 does not provide that assessment.

19.6.3 Private water-supply users

Private water-supply users should not disappear into the generic category of ‘residents’.

For those households, the relevant receptor is the drinking-water supply itself and the human population dependent upon it. The pathways include groundwater disturbance, piling, trenching, contaminated ground, drainage alteration, transformer oils, BESS-related contaminants and contaminated firewater.

These risks are highly location-specific. A private borehole hydraulically connected to a construction area cannot be assessed meaningfully through the average experience of ‘residents/users of the local area’.

The assessment should therefore identify individual supplies or coherent hydrogeological receptor clusters and test the complete set of pathways affecting each.

19.6.4 Schools, children and vulnerable highway users

The same problem arises with transport.

Children walking to school, cyclists, equestrians, elderly pedestrians and residents using narrow village lanes do not experience construction traffic in the same way as an ordinary motorised road user.

The transport evidence identifies constrained rural roads, school-related timing restrictions, PRoW conflicts and extensive reliance upon management measures such as marshals, call-forward systems, traffic controls and passing arrangements.

Where a school, village or vulnerable-user route is exposed simultaneously to HGVs, noise, severance, delay, air emissions and loss of pedestrian amenity, that receptor requires specific assessment. Broad grouping dilutes rather than reveals the risk.

19.6.5 Farms and rural businesses

Farm businesses are also inadequately represented by generic land-user or socio-economic categories.

The same holding may experience:

- permanent or long-duration landtake;
- loss of BMV land;
- severance of fields;
- disruption to drainage;
- temporary occupation;
- restricted access;
- construction traffic;
- soil compaction;
- compulsory rights;
- and uncertainty about restoration.

Rural tourism and other local businesses may simultaneously experience landscape change, access disruption, traffic, labour-market competition and reduced visitor amenity.

Those combined effects are not captured by assessing agriculture, transport and socio-economics separately and then assigning the receptor to a broad group.

19.6.6 Individual heritage assets and conservation areas

‘Heritage assets’ is particularly unsatisfactory as a cumulative receptor category.

The Scheme affects assets of very different significance, setting, visibility and relationship to the development. Grade I churches, Grade II* farmsteads, conservation areas and non-designated historic landscape features cannot be meaningfully averaged.

An individual church may be affected by:

- transformation of its agricultural setting;
- solar arrays;
- substations or pylons;
- traffic on historic approaches;
- construction noise;
- vegetation changes;
- and new screening which itself alters historic openness.

A conservation area may experience a different combination of HGV movements, highway works, visual change and alteration of rural approaches.

The correct assessment must therefore identify the particular asset and the particular combination of effects upon its significance and setting. A broad ‘heritage assets’ category risks concealing the assets experiencing the most serious cumulative harm.

19.6.7 Ecological populations and functional networks

The ecological grouping is the most problematic of all.

Chapter 19 identifies ‘ecologically-designated sites and priority habitats’ as the relevant operational receptor group. That is not an adequate substitute for species populations or functional ecological networks.

East Pye affects fundamentally different receptor systems, including:

- barbastelle maternity colonies and overlapping Core Sustenance Zones;
- connected hedgerow and dark-flight networks;
- great crested newt pond and terrestrial networks;
- farmland-bird territories;
- ancient woodland and veteran-tree networks;
- River Tas and chalk-stream systems supporting white-clawed crayfish and other aquatic species;
- botanically important field margins and roadside verges;

- County Wildlife Sites;
- and Roadside Nature Reserves.

These receptors respond differently to the same development.

New hedgerow planting may benefit one species while reducing open-country bird habitat. Lighting may have little relevance to a grassland habitat score but materially affect barbastelle connectivity. Sediment may have limited terrestrial consequences but severe aquatic effects. A retained woodland may avoid direct habitat loss while suffering cumulative edge effects, hydrological change, lighting and isolation.

The WR's ecological analysis therefore correctly requires cumulative assessment at the level of functional networks and shared receptors by name and location, rather than broad habitat categories.

Chapter 19's receptor grouping suppresses those distinctions. It cannot demonstrate the ecological worst case unless actual populations, colony networks, catchments and habitat systems are followed across the Scheme.

19.7 Misleading cumulative mapping

The Applicant's presentation of external cumulative development materially understates the scale of the surrounding development context.

Large solar, BESS, grid and housing schemes are represented principally as point symbols rather than by their actual red-line boundaries, construction footprints, cable corridors, substations, access routes and zones of environmental influence. BEPS' review of the cumulative material identifies this directly.

That is not a neutral cartographic choice. Cumulative effects are spatial. Their significance depends upon whether developments overlap in the same landscape, affect the same road, drain to the same watercourse, intersect the same ecological network or surround the same settlement.

A point symbol cannot show:

- whether Tasway and East Pye occupy the same or adjoining landscape;
- whether their ecological Zones of Influence overlap;
- whether Norwich to Tilbury affects the same hedgerows, woodland or heritage settings;
- whether several BESS or housing sites drain into the same tributary;
- whether several developments use the same rural construction route;
- whether the same residential receptors sit between several developments;
- or whether separate energy schemes progressively enclose the same settlement.

The result is visually misleading. A development covering hundreds of hectares can appear little more significant than a small local planning application because each is reduced to a similarly small symbol.

That presentation also conceals linear development particularly badly. Norwich to Tilbury is not experienced as a single point; it is a major electricity transmission corridor. Housing development is not experienced at the centre point of an allocation; it occupies land, creates roads, drainage and traffic and generates new receptors. Solar farms are not points; they comprise extensive arrays, substations, accesses and construction areas.

The cumulative map visually minimises the very cumulative development pressure that it is supposed to disclose.

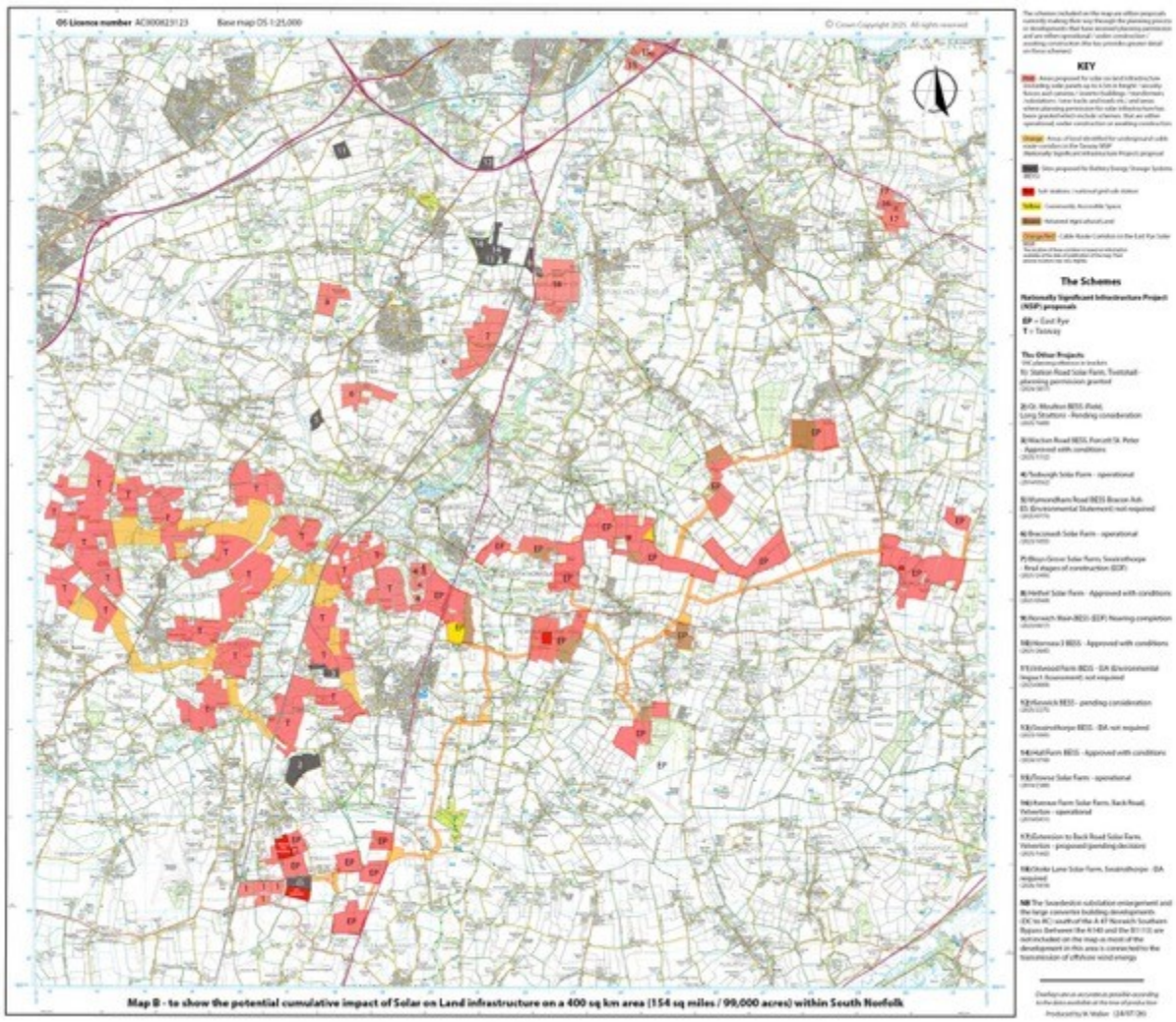
This matters directly to the decision-making process. A decision-maker viewing a field of isolated dots is not being shown the actual geographic transformation of the South Norfolk landscape. The Applicant should therefore provide GIS-based cumulative plans showing, so far as information is reasonably available:

- full red-line or application boundaries;
- solar, BESS and substation footprints;
- overhead-line and cable corridors;
- major construction and access routes;
- relevant landscape Zones of Theoretical Visibility;
- ecological Zones of Influence;
- surface-water catchments and groundwater receptors;
- heritage assets and their relevant settings;
- and settlements and residential receptors affected by more than one development.

Those plans should be produced at a scale capable of showing spatial overlap with East Pye rather than simply locating the existence of another project. Without that information, neither the public nor the Examining Authority can readily see the actual cumulative pattern of development which Chapter 19 is supposed to assess.

This concern was expressly examined at ISH1. The ExA referred to BEPS's criticism that surrounding schemes had effectively been presented as 'dots on maps' and said that the cumulative material could be made clearer by showing the actual extent of other schemes, particularly where they lie close to East Pye and may give rise to overlapping effects. The ExA also cautioned against defining the proposed interrelationships exercise only by the Norfolk administrative boundary, observing that an administrative boundary is not an environmental boundary. The Applicant agreed to consider projects beyond Norfolk where relevant and to engage with the host authorities on the scope of the work.

That hearing exchange materially supports the remedy already sought in this section. The necessary improvement is not simply a longer project list. It is spatial information sufficient to show where the footprints, corridors, access routes and environmental zones of influence of different projects actually overlap.



19.8 Tasway Energy Park has been excluded inconsistently

19.8.1 Tasway remains a potential project

Tasway should not be treated as though it has ceased to exist. The evidence assembled by BEPS records that the project is paused rather than abandoned. A paused project may resume; an abandoned or withdrawn project cannot. The cumulative assessment should therefore consider whether Tasway remains reasonably foreseeable and, if uncertainty remains, test its inclusion through a sensitivity scenario rather than simply removing it from the environmental picture.

The local authority evidence strongly supports its relevance. South Norfolk Council and Norfolk County Council both identified Tasway as a project requiring cumulative consideration with East Pye Solar. The appropriate response to

uncertainty is therefore not automatic exclusion. It is transparent assessment of the reasonable scenarios.

19.8.2 Tasway is geographically and functionally relevant

Tasway is not simply another distant solar proposal on a schedule. It is relevant because its effects potentially overlap East Pye in the same part of South Norfolk and through the same environmental systems. Those potential relationships include:

- shared and adjoining rural landscape;
- overlapping construction and highway networks;
- the Great Moulton/Tivetshall energy-infrastructure area;
- ecological networks, including bat habitat;
- cumulative effects around Tibenham Airfield;
- heritage and settlement receptors;
- and the reported intention or discussion concerning use of the Great Moulton grid connection.

BEPS' procedural evidence has previously identified Tasway's intended Great Moulton connection and the corresponding need for cumulative assessment. Those relationships are exactly what cumulative assessment is intended to test. They cannot be dismissed merely by attaching a lower procedural status to the neighbouring development.

19.8.3 The local authorities specifically sought Tasway's inclusion

The exclusion is particularly difficult to justify because the statutory consultees raised the issue directly. South Norfolk Council stated that the cumulative effects of East Pye with Tasway, Norwich to Tilbury and other schemes had not been adequately explored. Norfolk County Council likewise raised cumulative concern about Tasway, BESS development, Norwich to Tilbury and other energy infrastructure. The LLFA supported consideration of proposed but unconsented solar and BESS schemes where overlapping programmes could produce cumulative effects, particularly for drainage and downstream flood risk.

The Applicant therefore needs to explain not merely why Tasway has a different planning or grid status, but why those differences eliminate the environmental pathways identified by the consultees. That explanation has not been demonstrated.

19.8.4 The BESS comparison exposes inconsistent treatment of uncertainty

The treatment of Tasway also exposes a wider inconsistency in the Applicant's approach to uncertainty. East Pye's BESS remains an integral component of the Scheme and is relied upon in the environmental and project case despite its Gate 1 status and the unresolved future of its transmission connection. The BESS does

not presently have the same connection status as the solar generation element. That uncertainty has not caused the Applicant to remove the BESS from its Scheme assessment or from the benefits it attributes to East Pye. Tasway, by contrast, is treated more strictly because its future progression is uncertain. The Applicant therefore appears to apply different evidential thresholds to uncertainty depending upon whose project is being assessed.

The Applicant applies uncertainty asymmetrically. Tasway is excluded because future progression is said to be uncertain, while East Pye's own BESS remains an integral part of the assessed Scheme despite its Gate 1 status, unresolved connection position and uncertain delivery. If uncertainty is sufficient to remove Tasway from cumulative assessment, the Applicant must explain why materially comparable uncertainty does not weaken reliance upon its own BESS.

The Applicant cannot use uncertainty selectively.

A precautionary cumulative assessment should include Tasway in at least a reasonable worst-case or sensitivity scenario. Failure to do so risks materially understating the future concentration of energy infrastructure around Great Moulton, Tivetshall, Tibenham and the wider South Norfolk landscape.

19.9 Other surrounding energy infrastructure

Tasway Energy Park is not the only external energy project relevant to the cumulative assessment. The wider evidence identifies an exceptional concentration of proposed, consented and built energy infrastructure in Norfolk. NCC has expressly referred to Tasway, Bloys Grove, Trowse, The Droves, High Grove, Norwich to Tilbury and works associated with Hornsea Project Three when raising cumulative concerns.

The appropriate assessment therefore needs to look beyond a list of projects and determine which environmental receptors are shared.

19.9.1 Norwich to Tilbury

Norwich to Tilbury is particularly relevant because it is a major linear electricity-infrastructure project affecting the same wider rural landscape. Its potential cumulative effects include:

- additional pylons and grid infrastructure within the same landscape character areas;
- further effects on heritage settings and historic rural character;
- construction traffic using parts of the same strategic and local highway network;
- additional vegetation and hedgerow disturbance;
- ecological fragmentation;
- and further visual industrialisation.

The cumulative question is not whether East Pye and Norwich to Tilbury are different types of electricity infrastructure. It is whether the same receptor experiences both. Where the same church, settlement, road, woodland network, airfield or view is affected, the schemes must be considered together.

19.9.2 Other solar developments

The concentration of solar development must be assessed at landscape and regional scale. Other solar schemes may contribute to:

- repeated removal of land from agricultural production;
- cumulative loss of BMV land;
- repeated construction traffic;
- landscape enclosure and industrialisation;
- labour and accommodation pressure;
- loss of open-country habitat;
- cumulative impacts on bat and bird populations;
- and increased demand for substations and grid infrastructure.

The Applicant should therefore assess not merely whether one other solar project is visible simultaneously with East Pye, but whether the cumulative concentration changes the character and environmental function of the receiving landscape.

19.9.3 Other BESS schemes

BESS projects are also environmentally relevant in their own right. They generate potential cumulative effects through:

- industrial compounds;
- transformer and inverter noise;
- lighting;
- traffic;
- fire and contaminated firewater risk;
- drainage;
- electrical infrastructure;
- and demands on emergency services.

Where several BESS schemes are located around Long Stratton, Great Moulton or shared grid infrastructure, their effects should not be treated as isolated point developments. Their combined industrial character, construction programmes and grid requirements form part of the future baseline against which East Pye must be assessed.

19.9.4 Existing and proposed grid infrastructure

The assessment must also account properly for the wider electricity-network landscape. East Pye Solar itself includes substantial grid infrastructure, but it does not arrive in an infrastructure vacuum. Existing overhead lines, proposed Norwich to Tilbury works, East Pye's own new National Grid Substation, project

substations, pylons and other connection infrastructure collectively alter the landscape and create additional construction and environmental pressure.

The relevant question is not simply whether each infrastructure component has an acceptable individual impact. It is what degree of electricity infrastructure can be introduced before the rural landscape, ecological network and historic setting are materially transformed. Chapter 19 does not presently answer that question.

19.10 Housing growth has been understated

The cumulative development context must also include housing. East Pye is proposed within a living rural area in which settlements will continue to change during its proposed 60-year operational life. Strategic and local housing growth around Long Stratton, Tasburgh and other relevant settlements therefore matters wherever the developments affect the same receptors or infrastructure.

Housing is particularly important because it creates both environmental pressure and new human receptors. During construction, housing development may interact with East Pye through:

- additional HGV and contractor traffic;
- competition for road capacity;
- overlapping roadworks;
- construction noise and dust;
- increased demand for construction labour;
- temporary accommodation pressure;
- and cumulative drainage effects.
- Operationally, housing may:
- increase recreational use of PRoWs and rural roads;
- increase traffic on already constrained corridors;
- create new residents exposed to the changed landscape;
- alter drainage and catchment behaviour;
- increase demand upon public services;
- and reduce the remaining undeveloped separation between settlements and infrastructure.

The importance of this wider development context is demonstrated by the Applicant's own socio-economic assessment. Chapter 14 identifies **47 cumulative schemes**, of which **23 are energy-related and 11 are solar farms**. It expressly relies upon the possibility of simultaneous construction of those developments when concluding that cumulative employment effects may be Major Beneficial and significant. That admission is important.

The Applicant is prepared to aggregate the surrounding development pipeline when doing so strengthens its claimed employment and skills benefits. The same development pipeline must therefore be treated with equal seriousness when considering its adverse consequences for roads, accommodation, tourism, landscape, drainage, environmental capacity and communities.

Chapter 14 itself accepts that overlapping energy projects could place greater pressure on the temporary accommodation market and identifies a cumulative Minor Adverse effect in South Norfolk. The same logic applies more widely. A cumulative assessment cannot fairly present the benefits of 47 schemes as a real simultaneous economic opportunity while visually representing those developments as insignificant dots and narrowing their adverse environmental interactions elsewhere.

Housing development should therefore be mapped by its actual allocated or consented footprint where relevant, and the cumulative analysis should identify:

- shared construction routes;
- overlapping construction periods;
- combined drainage catchments;
- effects on rental and temporary accommodation;
- cumulative demand on local services;
- recreational pressure;
- and the increased population exposed to South Norfolk's long-term landscape and amenity effects.

The surrounding development context is not a background detail. It determines the future baseline in which East Pye would operate for six decades. Unless housing, energy and infrastructure development are represented at their true scale and assessed against shared receptors, the cumulative case will continue to understate the degree of change proposed for South Norfolk.

19.11 East Pye must be assessed cumulatively with itself

A central weakness in Chapter 19 is that it does not adequately assess the cumulative effects generated by East Pye upon itself. The Scheme is treated as a series of component effects divided between technical chapters, when in reality the same receptors are exposed repeatedly to different elements of one development.

Volume 1 identifies the correct principle: 'the key point is that receptors experience one scheme, not separate ES chapters.' That principle is particularly important here because East Pye is not a compact generating station. It comprises ten dispersed Sites and numerous Sub-Sites, approximately 24 km of cable corridor, multiple project substations, a BESS, a new National Grid Substation, overhead-line and pylon works, access roads, highway alterations, compounds and extensive temporary construction areas.

The environmental effect of that configuration cannot be understood simply by adding together separately assessed residual effects. The Scheme creates repeated pressure on the same landscape, ecological networks, roads, water systems, soils and communities.

19.11.1 Multiple Sites and Sub-Sites

The ten-site configuration creates repeated industrialisation across one connected rural landscape. A settlement may experience solar development on more than one approach. A bat population may use hedgerows and woodland spanning several Sites. A road may serve multiple construction areas. A catchment may receive runoff from several development parcels.

The relevant cumulative question is therefore not whether each Site is individually capable of mitigation. It is whether the combined development alters the environmental function and character of the wider South Norfolk Claylands.

Chapter 19 does not demonstrate that assessment. Its receptor-group methodology risks treating repeated effects from different parts of the same Scheme as separate local effects rather than as one landscape-scale pressure.

19.11.2 Approximately 24 km of cable corridors

The cable network is itself a major cumulative development component. The WR identifies effects from trenching, HDD, joint bays, temporary working widths, haul access, soil storage, dewatering and repeated crossings. Those works interact simultaneously with soils, groundwater, archaeology, agricultural drainage, ecology, watercourses, transport and EMF.

A cable corridor is not environmentally neutral because it will ultimately be buried. Construction can sever hedgerows, disturb soils, intercept drainage, create preferential groundwater pathways and require access through sensitive habitats. Where several circuits and crossings are required across approximately 24 km, those effects must be assessed cumulatively within the Scheme.

The relevant question is not whether each crossing can be individually mitigated. It is how many ecological, hydrological and agricultural systems are disrupted by the total cable network and whether those effects overlap spatially or temporally.

19.11.3 Multiple substations and National Grid infrastructure

East Pye contains substantial electrical infrastructure in addition to the solar arrays. The Scheme includes Project Substations, a new National Grid Substation, 132kV and 400kV infrastructure, existing and diverted 400kV overhead lines and new pylons. Chapter 17 confirms that the electrical system includes multiple underground circuits, overhead lines, substations, transformers and other electrical plant.

Those elements should be assessed as one cumulative industrial system. Their combined effects include landscape change, noise, lighting, EMF, drainage, foundation works, transformer oil, AIL transport and long-term infrastructure retention.

It is artificial to treat each substation or cable as though its effects arise in isolation. The Scheme's cumulative infrastructure footprint is materially greater than the sum of its individual equipment schedules.

19.11.4 BESS, substations and National Grid infrastructure at Site 1

Site 1 is the clearest example of internal cumulative constraint stacking. It combines the proposed BESS, Project Substation, National Grid Substation, overhead-line works and pylons with nearby homes, ecological, groundwater and private-water receptors, Tibenham Airfield, railway infrastructure, agricultural land and major construction access.

BEPS has already identified Site 1 as a cumulative infrastructure nexus. The significance of that location lies precisely in the interaction between these constraints. The Applicant must therefore demonstrate that fire containment, drainage, noise mitigation, aviation safeguarding, AIL access, groundwater protection, landscape and ecological mitigation, electrical safety and residential protection can all be satisfied simultaneously. Chapter 19 does not undertake that integrated test.

19.11.5 Multiple construction compounds and work fronts

The cumulative construction assessment is also incomplete because the Applicant does not clearly identify the maximum number of construction compounds and active work fronts that may operate at the same time. That matters because each compound and work front can generate lighting, vehicle movements, noise, dust, hardstanding, runoff, fuel and chemical storage, temporary drainage, vegetation removal and workforce activity. Several individually temporary effects may become a prolonged landscape-scale pressure where they occur concurrently across multiple Sites.

The Applicant should therefore disclose the realistic maximum simultaneous construction scenario and assess the environmental effects of that scenario. Without it, the assessment cannot demonstrate the true construction worst case.

19.11.6 Repeated highway interventions

The Scheme also requires repeated interventions across the rural road network. Chapter 11 identifies access works, passing places, visibility splays, vegetation clearance, highway widening, drainage changes, oversailing and structural constraints.

Each intervention may appear limited in isolation. Repeated across numerous lanes, they can cumulatively alter hedge networks, roadside ecology, drainage, historic road character and landscape structure. The cumulative effect therefore includes not merely construction traffic but the permanent and temporary physical changes required to make that traffic possible. This is of particular concern in the area surrounding Site 1, Great Moulton and Tivetshall.

19.11.7 Multiple HDD and watercourse crossings

The same principle applies to HDD and watercourse crossings. One controlled crossing may present a limited risk. Numerous crossings across connected catchments create repeated opportunities for sediment release, drilling-fluid

escape, hydrological disturbance, habitat damage and construction access impacts.

Where those watercourses ultimately feed the same downstream system, the assessment must consider the cumulative catchment consequence rather than each crossing independently. Chapter 19 does not provide that synthesis.

19.12 Landscape mitigation can itself create environmental harm

The Applicant relies heavily on new hedgerows, trees, woodland and scrub as landscape mitigation. That planting may reduce visibility of solar arrays and electrical infrastructure, but it is not environmentally neutral. In Volume 1 of this written representation, BEPS identifies the central problem directly:

‘The same hedge cannot simply be counted as landscape mitigation, heritage mitigation and ecological enhancement without assessing what it encloses, what open habitat it removes, what historic relationship it changes and what long-term landscape it creates.’

That is an important Chapter 19 issue because planting intended to solve one environmental problem may create another. For open-country birds, additional enclosure can reduce habitat suitability by fragmenting large fields and introducing vertical structures and predator perches. For heritage, new screening may obscure or change historic spatial relationships between churches, farmsteads, settlements and agricultural land. For landscape character, extensive new woodland belts may alter the open clayland structure that currently defines the area. The same planting may also affect agricultural functionality by changing field size, access and the capacity to restore land to its former use after decommissioning.

The Applicant cannot therefore treat planting as an unqualified environmental benefit. It must assess both the infrastructure being screened and the environmental effect of the screening itself. This is particularly important where mitigation planting is expected to remain after decommissioning. If mature woodland and hedgerows remain, the post-development landscape may differ permanently from the pre-development agricultural landscape. Chapter 19 should reconcile those cross-topic consequences. It does not.

19.13 Transport mitigation creates effects in other chapters

Transport mitigation is another clear example of cross-topic interaction. Chapter 11 identifies unresolved requirements for internal haul routes, passing places, visibility splays, access works, vegetation clearance, road widening, drainage changes and other highway interventions. It also recognises ecological, landscape, drainage and heritage consequences arising from those works. Those consequences must be carried into Chapter 19.

A new passing place may require hedge removal or verge excavation. A visibility splay may require tree loss. A haul road may compact BMV soil or cross field drainage. Road widening may affect a Roadside Nature Reserve or historic lane. Culvert or drainage works may affect watercourses. A revised route may move traffic closer to homes or heritage assets.

The transport solution is therefore not simply a means of reducing traffic impact. It is itself a source of environmental effect. Where the local highway authority requires a different access strategy from that assessed by the Applicant, the problem becomes more serious. Any materially different routeing solution may generate a new combination of ecological, landscape, heritage, drainage and land effects which the current ES has not assessed.

Chapter 19 cannot assume that transport mitigation solves the environmental problem unless the physical consequences of that mitigation have been reconciled across the ES. They have not.

Transport mitigation cannot be treated as environmentally neutral merely because it solves a transport constraint.

19.14 Water, ground conditions and soils form one connected system

Chapters 9, 15 and 16 address different technical subjects, but the receptors and pathways are physically connected.Heavy clay soil affects runoff and infiltration. Compaction alters drainage. Trenching can intercept agricultural drains. Piling and deep foundations may create or extend groundwater pathways. HDD may affect groundwater or surface-water systems. Contaminated soils may be mobilised by construction. Concrete, cement, oils and BESS firewater introduce potential pollutants. These pathways can ultimately affect the same aquifer, private water supply or chalk-stream receptor.

Volume 2 expressly identifies the lack of reconciliation between Chapters 9, 15 and 16. Chapter 19 is where that reconciliation should have occurred. The issue is especially significant because much of the Scheme is underlain by Principal Aquifer and because private water supplies, field drainage, ordinary watercourses and chalk-stream systems form linked receptor networks.

A pile does not operate in a ‘ground conditions’ chapter. It penetrates soil and geology and may affect groundwater. A haul road does not operate only in a ‘transport’ chapter. It compacts soil and alters runoff. A BESS fire is not confined to ‘major accidents’. Its contaminated firewater may enter drainage or groundwater. The cumulative water assessment must therefore combine soil compaction, altered runoff, agricultural drainage, groundwater pathways, piling, trenching, HDD, contaminated land, oils, concrete, dewatering and firewater within the same source–pathway–receptor framework. Chapter 19 does not do so. Its treatment of water is too fragmented to demonstrate the combined hydrological risk of the Scheme.

19.15 Ecology: cumulative effects must be assessed by functional network

The ecological assessment requires the same network-led approach. East Pye lies within a connected ecological landscape containing nationally important bats, ancient woodland, hedgerows, ponds, watercourses, farmland-bird habitat and botanical corridors. The relevant receptors are functional systems, not isolated habitat polygons.

19.15.1 Barbastelle maternity-colony landscape

The Applicant's own evidence identifies a nationally important bat assemblage, widespread barbastelle activity and multiple maternity colonies whose Core Sustenance Zones overlap the Order Limits. The cumulative receptor is therefore the maternity-colony landscape itself. That landscape is affected by panel land-take, repeated hedge gaps, lighting, noise, traffic, fencing, woodland-edge disturbance, cable routes and construction compounds. External projects may affect the same foraging and commuting network.

A colony cannot be protected merely by retaining the roost tree if the surrounding feeding and movement network is progressively compressed or fragmented. The Applicant must therefore assess the cumulative effect on colony function, not simply direct habitat loss.

19.15.2 Ancient woodland fragmentation

The WR identifies six ancient woodlands directly adjoining the Scheme and wider ancient woodland networks throughout the surrounding landscape. The relevant harm is not limited to tree removal. Development may increase isolation, lighting, disturbance, edge effects, hydrological change and separation from surrounding habitat.

Where solar fields, roads, cables and other infrastructure progressively surround or separate ancient woodland blocks, the cumulative effect may be materially greater than the effect at any individual buffer. Chapter 19 does not assess that network-level fragmentation.

19.15.3 Farmland birds and stewardship land

Farmland birds are affected by several interacting changes: solar arrays reduce open ground, fencing changes permeability, landscape planting increases enclosure, construction creates disturbance and neighbouring development may remove additional open habitat.

Many of the proposed solar fields are either current or former Countryside Stewardship land managed for biodiversity and ground-nesting birds.

The cumulative question is not simply the area of habitat retained. It is whether sufficient functionally suitable open habitat remains across the whole landscape when all potential development is taken into account. Chapter 19 does not answer that question.

19.15.4 River Tas and aquatic ecology

The River Tas and connected tributaries require catchment-scale assessment. Potential effects include HDD, sediment mobilisation, runoff, altered groundwater pathways, water-quality changes, EMF at cable crossings and cumulative construction activity. The evidence of white-clawed crayfish within the River Tas system makes an analysis of these combined pressures essential. The proposed Tasway Energy Park and Norwich to Tilbury pylons are both even closer to this surveyed colony.

Those pathways cannot be assessed separately where they affect the same aquatic system. The cumulative effect must include the possibility of several construction and electrical pathways acting upon one sensitive receptor network.

19.15.5 Roadside Nature Reserves and botanical corridors

Roadside Nature Reserves, species-rich verges and historic lanes are particularly exposed to transport-related works. Visibility splays, highway widening, new access points, traffic, dust and vegetation clearance may affect small areas individually but collectively erode a connected botanical and ecological network. These linear habitats are also among the least comprehensively surveyed. East Pye Solar has not carried put a botanical survey despite being alerted by botanists to the need for one.

That combination of incomplete baseline and repeated engineering pressure makes cumulative assessment essential.

19.15.6 Great crested newt and pond networks

Great crested newts depend upon ponds and surrounding terrestrial habitat as a network. Fencing, roads, cable trenches, compounds and vegetation loss between ponds can therefore affect population function even where individual ponds are retained. The correct receptor is the pond and terrestrial network, not each pond in isolation. Chapter 19 does not demonstrate that this network has been assessed cumulatively.

19.16 Heritage: the whole historic landscape must be assessed

The cultural-heritage effects of East Pye extend beyond individual views of listed buildings. The Scheme is located within a surviving historic agricultural landscape containing multiple Grade I churches, many Grade II* and hundreds of Grade II farmsteads, multiple conservation areas, historic lanes and long-established relationships between settlement and countryside. Those relationships are affected by solar arrays, substations, pylons, road works, traffic, lighting and new screening vegetation. The wider cumulative context includes Norwich to Tilbury, Tasway if it proceeds, housing growth and other energy infrastructure.

The effect is therefore not simply whether two developments can be seen simultaneously from one window. It is the progressive alteration of the historic landscape within which assets derive part of their significance. The Applicant relies materially upon planting to reduce visual effects. That is insufficient. **Screening may reduce visibility. It cannot restore an historic spatial relationship once that relationship has been changed.** A mature hedge cannot remove a substation. It cannot restore an historic open field. It cannot reverse the industrialisation of an approach to a church. It cannot recover lost tranquillity. In some circumstances the hedge itself changes the historic landscape by enclosing views that were formerly open.

Chapter 19 should therefore assess the combined change to the whole historic landscape and to the experience of individual assets within it. It does not.

19.17 Residents and community amenity: the Applicant fragments one lived experience

The Applicant's treatment of residents illustrates the wider structural weakness of the ES. A resident does not experience separate landscape, noise, transport, air-quality and socio-economic effects. They experience one lived environment. During construction that may include major visual change, HGV traffic, noise, vibration, road closures, dust, lighting, loss of tranquillity, severance, uncertainty and pressure on local services or accommodation. During operation it may include long-term landscape change, substation or BESS noise, lighting, altered road character and loss of the former rural setting.

Chapter 19 recognises several of those effects individually but largely concludes that significant in-combination effects arise only where significant visual effects coincide with construction or operational noise. That is too narrow. A combined residential effect does not become insignificant merely because only one constituent effect crossed a technical significance threshold. A household experiencing a major landscape change plus repeated HGV disturbance, low-level noise, lighting and reduced tranquillity may experience a materially different overall amenity effect.

The assessment must therefore identify worst-affected residential receptors and follow the full combination of effects experienced by each. Generic receptor grouping obscures that lived reality.

19.18 PRoWs and recreational receptors

The same problem applies to users of PRoWs and recreational routes. Chapter 19 acknowledges significant visual effects but concludes the overall in-combination amenity effect is generally not significant because transport effects are individually Minor. That conclusion does not reflect how routes are experienced. Users may encounter solar infrastructure, substations, fencing, noise, HGVs, temporary closures, diversions, construction crossings, dust, lighting and a sustained loss of tranquillity along the same journey.

Chapter 11 identifies extensive PRoW interactions and specifically recognises promoted routes including Boudicca Way and Via Beata. It also identifies the possibility that internal haul strategies may increase PRoW conflicts. For long-distance or promoted routes, cumulative exposure is especially relevant. A walker may pass through or beside several East Pye Sites over the course of one route. Three new permissive paths do not restore the existing experience of those established routes. The Applicant should therefore assess route-long cumulative effects rather than isolated crossing or viewpoint effects.

The ExA has now expressly raised this issue in ExQ1 Q1.11.4. It notes the Applicant's 'compartmentalised assessments' and asks for an assessment of the cumulative and sequential visual effects experienced by recreational users likely to traverse more than one named PRoW during a single journey, including circular routes from Great Moulton, Saxlingham Nethergate, Saxlingham Green and other settlements. That question directly confirms the need to assess the journey experienced by the receptor rather than a sequence of isolated path segments or viewpoints.

19.19 Transport and construction-programme cumulative effects

The transport cumulative assessment cannot be divorced from the construction programme.Chapter 11 demonstrates that East Pye already relies on an unusually constrained access strategy involving shared haul corridors, HGV controls, call-forward systems, holding compounds, school-related restrictions, AIL movements and rural lanes of limited physical capacity.

The key question is whether those controls remain workable when several East Pye work fronts operate simultaneously and when external projects are added. Relevant overlapping demands include Norwich to Tilbury, Tasway, other solar and BESS projects, housing construction and major infrastructure works.These schemes may use the same A47, A140 and rural-road network, the same workforce catchments and the same accommodation market.

ISH1 produced specific evidence of an unresolved external cumulative transport interaction. National Highways stated that its principal concern was the A47/A140 junction and that further analysis was required to justify the Applicant's position. It specifically identified the cumulative effect of East Pye construction traffic together with construction traffic from Norwich to Tilbury as a matter requiring consideration. The Applicant confirmed that it had been liaising with the Norwich to Tilbury project to obtain trip-generation information and that this overlap was being considered.

This illustrates why a strategic-link percentage is not sufficient. A cumulative network may appear acceptable overall while a particular junction, bridge, village lane or school route becomes the limiting receptor.

The Applicant should therefore provide a programme-linked cumulative logistics model identifying the maximum simultaneous traffic demand from East Pye and reasonably foreseeable surrounding schemes. Without that evidence, the conclusion that cumulative transport effects are manageable is not demonstrated.

ISH1 also confirmed that the current construction programme is indicative and that the eventual phase or phases and timetable would be settled later through Requirement 2. The Applicant stated that cumulative effects from other schemes would be taken into account in that process. That future control is relevant, but it does not remove the present EIA question: whether a realistic reasonable-worst-case overlap of East Pye work fronts and external construction programmes has already been assessed.

19.20 Noise and vibration cumulative effects

The cumulative noise assessment also understates the whole-life and multi-source character of East Pye Solar. Construction noise arises from traffic, piling, general construction activity and HDD. Operational noise arises from Project Substations, the National Grid Substation, BESS, inverters and associated plant. Replacement and decommissioning create further periods of construction-type noise. The Applicant's own Chapter 12 acknowledges that HDD can produce impacts ranging up to Major Adverse, although the final significance conclusion is still reported as not significant.

Chapter 12 also accepts long-term cumulative operational noise effects at high-sensitivity receptors but classifies them as Minor Adverse and not significant.Those conclusions must be viewed in the context of a quiet rural acoustic environment and multiple potential sources. The cumulative question is not simply whether two modelled sound levels remain below a threshold. It is whether the character, duration, repetition and timing of noise from several Scheme components and external developments materially changes the rural acoustic environment.

Decommissioning illustrates the weakness. Chapter 12 states that cumulative decommissioning effects cannot be meaningfully assessed because other project timescales are unknown, but nevertheless concludes they are unlikely to be significant because each development is expected to have a DEMP. That is assumption, not assessment. A management plan cannot establish that simultaneous future noise will not occur.

19.21 Air-quality cumulative effects

The air-quality cumulative issue is narrower but still relevant. East Pye construction will generate HGV movements, worker traffic, dust and road-related emissions. Those effects may coincide with Norwich to Tilbury, housing schemes and other major energy developments using the same road network. The principal concern is therefore cumulative construction exposure at settlements, schools, vulnerable residents and ecological receptors close to shared routes.

Repeated highway works, road widening, soil disturbance and construction traffic may also extend the duration of dust and particulate exposure beyond that associated with East Pye alone. The Applicant should demonstrate that cumulative construction programmes have been reflected in traffic-related emissions and dust assessment wherever the same receptors may be affected. Chapter 19 does not provide a clear receptor-specific synthesis of those combined effects.

The August 2026 NPPF now states expressly in national decision-making policy P3 that development proposals should take account of the likely effects, ‘including cumulative effects’, of pollution on health, living conditions and the natural environment, whether those effects are on- or off-site and whether they arise from the development itself or pre-existing conditions in its vicinity. The NPPF is not the primary policy framework for this NSIP, but that wording reinforces the need for receptor-specific cumulative consideration of noise, air emissions, dust, lighting and other pollution pathways rather than treating each source in isolation.

19.22 Socio-economic cumulative effects are selectively positive

The Applicant's treatment of cumulative socio-economic effects reveals an important asymmetry. Chapter 14 is willing to aggregate surrounding projects where that produces a larger beneficial employment conclusion. The cumulative assessment recognises that simultaneous construction of major schemes may generate substantial employment and skills demand.

Yet the same overlapping construction programmes also create adverse effects: competition for skilled labour, pressure on temporary accommodation and the private rental market, additional traffic, tourism displacement, pressure on services and disruption to local businesses. Those effects arise from the same cumulative development pipeline. The methodology should therefore be symmetrical.

The Applicant readily aggregates surrounding development where aggregation strengthens the claimed economic benefit, but the assessment is markedly less precautionary where the same overlapping development produces environmental or community burdens.

The economic case is also gross rather than necessarily net. Jobs associated with East Pye may coincide with labour demand from other infrastructure schemes, which could constrain rather than expand the locally available workforce. Chapter 19 should therefore assess cumulative employment benefit alongside cumulative labour-market pressure, accommodation demand, tourism effects and service impacts using the same development assumptions. A cumulative methodology cannot maximise the benefit scenario while minimising the harm scenario.

19.23 Soils, agricultural land and food production

Cumulative land-use effects require a spatial rather than national assessment. East Pye itself affects substantial areas of agricultural land, including BMV land and land managed under stewardship. Other solar developments, Norwich to Tilbury, housing, highway works and associated infrastructure remove or disturb further land within the same regional agricultural economy. The relevant issue is therefore not the percentage of English farmland affected nationally. It is the local concentration of loss and disturbance.

Heavy clay soils are also vulnerable to compaction from construction traffic, temporary haul roads, compounds, cable works and repeated replacement activities. Chapter 15 identifies those risks and questions assumptions of full reversibility.Cumulative effects may therefore include not only land-take but reduced soil structure, altered agricultural drainage, fragmentation of holdings and loss of established stewardship function.

The Applicant must assess the total concentration of agricultural change within the affected landscape rather than treating each scheme as an insignificant fraction of national farmland. A small national percentage does not answer a large local cumulative loss.

19.24 EMF cumulative effects

The cumulative EMF assessment is particularly weak. Chapter 17 treats cumulative effects mainly in relation to cables sharing a trench and generic domestic electrical exposure. It does not provide a project-wide model of the combined electrical environment created by multiple East Pye circuits, existing and diverted overhead lines, Project Substations, the National Grid Substation, BESS and inverter compounds.

Nor does it adequately include Norwich to Tilbury, Tasway or other surrounding BESS and grid projects. There is no hotspot mapping, no combined receptor modelling and no adequate cumulative ecological assessment. That omission is particularly serious for aquatic receptors. Chapter 17 provides no crossing-specific assessment of EMF within the riverbed, banks or water column and no combined-field assessment where multiple circuits cross.

Chapter 19 should therefore not inherit Chapter 17's conclusion of limited significance without correction. The Applicant must model the actual electrical system being authorised and its overlap with surrounding infrastructure.

19.25 Utilities and infrastructure interactions

East Pye Solar intersects a dense network of existing infrastructure. Chapter 18 identifies Openreach, Gigaclear, B4RN, Anglian Water, Cadent and National Gas Transmission infrastructure within the Order Limits. It records that the high-pressure Natural Gas 5 Feeder passes through Sub-Sites 5A, 5B, 7B, 7E, 7F and CRC7, while an existing dual-circuit 400kV overhead line and pylons pass through Site 1.

These are not simply utilities to be ‘worked around’. They impose easements, access requirements, safety zones, construction restrictions, emergency requirements and long-term maintenance obligations. Site 7E is particularly important because the National Gas transmission pipeline interacts with the area proposed for construction access and haul-road use. That creates a direct engineering and safety interface between heavy construction traffic and nationally important gas infrastructure.

Site 1 similarly combines existing and proposed National Grid infrastructure, railway proximity, electrical works and other constraints. The correct cumulative question is whether one final design can comply simultaneously with all easement, loading, access, drainage, safety and environmental requirements. Chapter 19 does not demonstrate that reconciliation.

19.26 Major accidents and disaster risk must be assessed cumulatively

Chapter 18 adopts a high-level approach to major accidents and disasters and relies heavily on outline plans and future detailed assessment. The WR records unresolved issues including BESS thermal runaway, toxic release, firewater contamination, hydrogen fluoride, groundwater risk, HSE consultation zones and gas-main interaction.

Chapter 19 should therefore provide the integrated major-accident synthesis which Chapter 18 does not.

Site 1

Site 1 combines a BESS, Project 400kV infrastructure, National Grid 400kV infrastructure, overhead lines and pylons, nearby railway, sensitive groundwater and private-water receptors, homes, aviation constraints and construction access.

A serious event could interact across several of those systems. A BESS or transformer fire could generate smoke, contaminated firewater, electrical isolation requirements and emergency-access demands while affecting nearby homes, railway operations, aviation and groundwater.

The question is not whether each risk has an outline management response. It is whether the combined emergency scenario has been assessed.

Site 5

Site 5 combines major electrical infrastructure with a sensitive water and ecological environment, including hydrological links to the River Tas system.

A transformer or construction pollution event therefore cannot be considered only as an infrastructure issue. Its consequences may include groundwater or surface-water contamination and ecological harm.

These concentrations of hazard and receptor sensitivity are precisely the type of interaction Chapter 19 should synthesise. It does not.

19.27 Aviation and glint/glare cumulative effects

Tibenham Airfield should be treated as a shared cumulative receptor. The relevant effects are not confined to one glint-and-glare calculation. They include East Pye solar arrays, Tasway if it proceeds, the Norwich to Tilbury pylons which pass immediately to the west, multiple substations, pylons, cranes, lighting and the progressive loss or alteration of emergency landing terrain around the airfield.The cumulative issue is therefore operational safeguarding.

Each additional development may reduce flexibility available to glider pilots, alter the visual environment, introduce obstacles or remove suitable emergency landing areas. The effect of East Pye must be assessed in the context of all reasonably foreseeable surrounding development affecting Tibenham, not as though Site 1 exists alone.

Tasway's pause does not remove that requirement where the project remains capable of proceeding. It has the same gate 1 status as the East Pye Solar BESS, yet the applicant is still treating that project as if it is material. To discount Tasway would be inconsistent.

The correct question is whether the cumulative development pattern preserves a safe operational environment around Tibenham. Chapter 19 does not answer it.

19.28 Replacement and repowering create further cumulative construction phases

East Pye's 60-year life is not simply construction followed by operation and then decommissioning.Volume 1 of BEPS’s Written Representation identifies foreseeable replacement of solar panels, repeated BESS replacement, transformer replacement, cable works and associated re-use of access infrastructure. Volume 2 identifies corresponding ecological and whole-life disturbance.

Those activities will involve renewed HGV traffic, compounds, lifting equipment, waste handling, noise, soil disturbance and ecological disruption. BESS equipment may be replaced up to five times during the operational period. Solar modules and power-conversion equipment may also require major replacement cycles. Those are foreseeable phases of the authorised development and should be assessed cumulatively. They may occur after mitigation habitat has matured, meaning that the receptor value affected during replacement could be greater than during original construction.

ISH1 has since confirmed that this is not merely a theoretical concern. When asked what construction compounds would be required when the solar modules are replaced, the Applicant said that the ‘exact areas’ used for the original compounds would be needed again, albeit on a phased basis. That evidence is

particularly important where land used as a construction compound is subsequently restored or established as ecological mitigation, as at Site 6. The cumulative assessment therefore needs to include the return of construction-type activity to land which may by then have developed materially different ecological, soil and landscape value.

Chapter 19 barely acknowledges this whole-life reality. A 60-year NSIP cannot be assessed as:

construction → passive operation → decommissioning.

It contains potentially substantial intermediate construction phases which must form part of the cumulative assessment.

19.29 Decommissioning cannot be assumed to be construction in reverse

Chapter 19 groups construction and decommissioning largely together because decommissioning is assumed to produce similar or lesser effects. That assumption is unsound.

By the time decommissioning occurs, the receiving environment will be fundamentally different. Mitigation woodland and hedgerows may be mature. New habitats may have become established. Soils will have undergone decades of altered management. Surrounding settlements and infrastructure will have changed. Climate conditions may differ materially. Some electrical infrastructure will remain live or permanently retained.

The waste burden will also be fundamentally different. Decommissioning requires removal and disposal or recycling of decades-old solar, battery and electrical equipment rather than delivery of new equipment. Underground cables, ducts, foundations or other infrastructure may remain. National Grid infrastructure is expected to remain. Access and drainage infrastructure may also persist.The environmental conflicts at decommissioning are therefore different from construction.

Removing equipment may damage habitats created as mitigation. Retaining those habitats may prevent restoration of agricultural land. Removing buried infrastructure may create soil and ecological disturbance, while leaving it in place produces a different permanent land condition.

Volume 1 of BEPS’s written representation identifies precisely these incompatible concepts of reversibility and restoration. Decommissioning therefore requires a separate cumulative assessment against the future baseline that will actually exist. It cannot lawfully or technically be assumed to be ‘construction again, but less’.

19.30 The post-decommissioning end state is internally inconsistent

The ES does not present one coherent post-decommissioning future. Different chapters rely upon different assumptions about what will remain.

The National Grid Substation and elements of the Grid Connection Infrastructure are expected to remain. Chapter 17 itself recognises that retained infrastructure may remain live during decommissioning.

Landscape mitigation planting may also remain. Woodland, hedgerows and trees planted to screen the Scheme could therefore become permanent features of the landscape. Underground cables, ducts, joint bays, foundations, access works and drainage infrastructure may also be retained in whole or in part depending upon the final decommissioning strategy.

That creates a fundamental cross-topic inconsistency:

- If mature planting remains, the historic and agricultural landscape has not been restored to its former condition.
- If BNG habitat remains, agricultural restoration may be constrained.
- If grid infrastructure remains, visual and heritage effects continue.
- If drainage systems remain, hydrological conditions may remain altered.
- If underground infrastructure remains, soils and future agricultural operations may remain affected.

If that infrastructure is removed, further ecological, soil, transport and waste effects arise. Landscape, ecology, heritage, agriculture, soils and water cannot each assume whichever future baseline produces the most favourable conclusion. There must be one defined post-decommissioning scenario.

Volume 1 of BEPS’s written representation already identifies this as one of the clearest examples of cross-topic inconsistency in the ES. The Applicant should therefore provide a single removal-and-retention schedule identifying what will remain permanently and ensure that every environmental chapter assesses the same end state. Until that is done, the Applicant has not demonstrated reversibility, restoration or the true long-term cumulative effect of the Scheme.

19.31 The claimed operational ecological benefit is based on the wrong baseline and is not demonstrated

Chapter 19 concludes that operation will produce significant beneficial in-combination effects for ecologically designated sites and priority habitats because conventional agricultural activity, fertiliser application and chemical inputs will cease, while new habitat and improved water quality will result. That conclusion is materially overstated because it assumes a false comparison: intensive agricultural land before development against ecologically improved solar grassland afterwards. That is not the environmental baseline across substantial parts of East Pye.

Large areas within the Order Limits have been, and in some cases remain, subject to publicly funded Environmental Stewardship or Countryside Stewardship management specifically intended to deliver biodiversity recovery. BEPS's review of Natural England spatial data identifies substantial stewardship land associated with Sites 4, 5 and 7, with agreements commencing around 2013 and some continuing to at least 2028. The management includes low-input cropping, field margins, winter food or stubble provision and habitat mosaics relevant to declining farmland birds. Live agreements have also been identified at Sites 5A and 5B and at the western end of Site 7. The ecological importance of that management is not theoretical. The Applicant's own survey evidence records 81 skylark territories, 70 of them within areas of permanent development, together with confirmed breeding by Red List linnet, skylark and yellowhammer, probable breeding by song thrush and a wider assemblage dependent upon open fields, mature boundaries, margins and associated habitats. The land is therefore not ecologically neutral farmland awaiting biodiversity enhancement. Parts of it are already functioning conservation habitat produced through more than a decade of deliberate public investment.

The expiry of a stewardship agreement does not erase the habitat condition or ecological function created by that management. The EIA baseline is the environment that exists, not the contractual status of the subsidy which helped create it. Replacing established stewardship habitat with panel arrays, fencing, access tracks, substations and a different management regime is therefore not automatically an ecological gain merely because fertiliser application may cease. It is the replacement of one functioning ecological system with another whose species composition, carrying capacity and long-term functionality remain uncertain.

That distinction is especially important for farmland birds. Existing stewardship has maintained open, relatively undisturbed habitat and associated margins which support skylark and other declining species. Solar development introduces repeated vertical structures, fencing, access routes, maintenance activity and additional enclosure. New grassland and hedgerows may benefit some species, but they do not necessarily replace the ecological function of extensive open breeding habitat. The immediate loss occurs at construction; any replacement value arises later, if it arises at all. The Applicant has not demonstrated where the 70 skylark territories within permanent development areas will be accommodated or that the future solar landscape will provide equivalent carrying capacity.

More fundamentally, Chapter 19's claimed ecological benefit is difficult to reconcile with the evidence on bats. The Applicant's own surveys establish that the Order Limits support a bat assemblage of national importance and that barbastelle is highly abundant and widespread across the Scheme. South Norfolk Council records ten bat species within the Order Limits and evidence from the Norfolk and Norwich Bat Group identifying 12 barbastelle maternity colonies whose Core Sustenance Zones overlap the Order Limits. The Council expressly states that research indicates solar development can significantly reduce bat

activity both within solar sites and along adjacent boundary features, and has requested additional species-specific survey and avoidance of panels immediately adjoining woodland.

The peer-reviewed evidence directly undermines the assumption that retaining hedgerows and creating new grassland is sufficient to preserve bat function. Tinsley et al. (2023), published in the *Journal of Applied Ecology*, compared 19 operational ground-mounted solar farms with paired control sites in England and found significantly lower activity for six of the eight bat taxa analysed. Importantly, reductions were not confined to the panel fields: reduced activity was also recorded along retained field boundaries for some taxa. That finding is particularly important at East Pye because hedgerow retention and enhancement are central to the Applicant's mitigation case. Physical retention of a hedge does not demonstrate retention of its ecological function if bats reduce their use of that boundary after solar development is introduced alongside it. The relevant ecological question is therefore not merely how many metres of hedge remain, but whether the nationally important bat assemblage continues to use the landscape for commuting and foraging at comparable levels.

Other peer-reviewed research points in the same direction. Barre et al. found altered flight behaviour and significantly reduced feeding-buzz probability at utility-scale solar farms, indicating poorer foraging conditions within solar landscapes. The Wilder Ecology review also records that Szabadi et al. found solar farms were used principally by species adapted to more anthropogenic environments, while *Myotis* species and *Barbastella barbastellus* were infrequently recorded within the solar farms studied. The available literature is therefore not consistent with a general assumption that converting farmland to solar grassland necessarily improves habitat for rare and specialist bats.

East Pye is materially more sensitive than the ordinary agricultural sites against which those studies were undertaken. The Applicant itself identifies the Scheme landscape as nationally important for bats, while specialist evidence identifies multiple barbastelle maternity colonies, overlapping Core Sustenance Zones and widespread use of woodland, hedgerows, field margins, ponds and watercourses. The consequence of reduced bat activity here is therefore potentially much more serious than at an ordinary solar site: it may affect the functional landscape supporting maternity colonies of a rare Annex II species.

The issue cannot be answered by Biodiversity Net Gain. BNG measures habitat quantity and condition; it does not establish that a barbastelle maternity-colony landscape remains functional, that existing commuting routes will continue to be used, that insect prey availability will remain equivalent or that displaced bats can simply use newly created habitat elsewhere. New woodland and hedgerows also cannot immediately reproduce the maturity, structure, darkness, roost features and prey associations of the existing Claylands network. Volume 2 therefore correctly concludes that habitat creation is not a substitute for avoiding disruption to the existing bat landscape.

Nor does cessation of fertiliser and pesticide use answer the problem. Reduced agricultural inputs may improve some soil, vegetation and water-quality parameters, but that benefit operates through a different ecological mechanism from solar-related habitat displacement, behavioural avoidance, fragmentation, altered microclimate and changes in prey availability. One cannot be assumed to cancel the other.

The claimed benefit is further weakened by uncertainty over the actual operational management regime. The WR identifies reliance on mechanical mowing and possible herbicide use rather than a secured low-intensity grazing regime. Repeated mowing traffic, vegetation control and herbicide application are not environmentally equivalent to the stewardship management currently supporting parts of the landscape, nor do they establish that the future solar grassland will provide a superior ecological resource.

The same uncertainty applies to hydrology and whole-life management. Claimed water-quality benefits from reduced fertiliser inputs do not answer effects from soil compaction, altered runoff, piling, trenching, HDD, transformer oils or BESS firewater. Habitat gains must also survive panel replacement, repeated BESS replacement, transformer works and eventual decommissioning, by which time mitigation habitats may themselves have become valuable ecological receptors. Climate change, drought, disease and future water availability introduce additional uncertainty over whether planting and habitat prescriptions will perform as assumed over six decades.

The proper conclusion is therefore substantially stronger than that the ecological benefits are merely ‘conditional’. Chapter 19 has not demonstrated a net significant ecological benefit at all. It compares the Scheme against an inadequately characterised agricultural baseline, fails to give proper weight to existing and recent stewardship management, and assumes that generic habitat creation and reduced chemical inputs outweigh or replace species-specific ecological functions which may be degraded by solar industrialisation.

For farmland birds, the Scheme would remove established publicly funded conservation habitat and replace it with a fundamentally different land-use system whose capacity to support the existing populations has not been demonstrated. For bats, the position is still more serious: the best available peer-reviewed evidence shows that ground-mounted solar can reduce activity even where boundary habitats remain, while East Pye occupies a nationally important bat landscape supporting multiple barbastelle maternity colonies. The Applicant has not demonstrated that landscape-scale solar development across that functional network can be mitigated by retained hedges, buffers, new planting or BNG.

Accordingly, Chapter 19 should not attribute a Significant Beneficial ecological in-combination effect to the operational Scheme. On the present evidence, that conclusion is unsupported and potentially reverses the true ecological risk. Where an existing conservation-managed landscape supports nationally important bat populations and substantial farmland-bird use, the mitigation

hierarchy requires the Applicant first to demonstrate avoidance of functional harm. It has not done so.

19.32 Benefits cannot cancel unrelated harms

Chapter 19 correctly recognises that beneficial and adverse effects of different natures should not simply be balanced against one another to produce a neutral environmental outcome. Paragraph 19.2.4 states that where beneficial and adverse effects occur simultaneously on the same receptor, the Applicant does not assign an overall beneficial or adverse nature because such balancing would be inherently subjective. That principle must be applied consistently throughout the assessment.

Construction employment does not reduce landscape harm. Skills benefits do not make narrow rural roads safer. Ecological planting does not restore the historic setting of a listed building. A national greenhouse-gas benefit does not remove local habitat fragmentation. Reduced fertiliser use does not neutralise a groundwater contamination pathway or the loss of a dark bat corridor.

Those effects concern different receptors and different environmental functions. They may all be relevant to the eventual planning balance, but they should not be allowed to dilute one another within the EIA significance assessment.

The August 2026 NPPF W3 now requires substantial weight to be given in decision-making to the energy-security, economic-development and net-zero benefits of renewable and low-carbon energy development. That is a planning-balance requirement; it does not alter the prior EIA task of identifying the nature and significance of adverse environmental effects accurately. Substantial policy weight for renewable-energy benefits is therefore not a basis for reducing or netting-off an unrelated environmental effect within the cumulative assessment itself.

This is especially important because Chapter 19 repeatedly presents beneficial socio-economic effects alongside adverse environmental effects. During construction it identifies Major Beneficial effects for jobs and employment and Moderate Beneficial effects for skills while also recording adverse visual, transport, noise, water and tourism effects. The coexistence of those benefits does not make the adverse effects less physically real or environmentally significant.

The same applies to ecology. A positive BNG outcome or new hedgerow planting cannot be used as a general counterweight to harm to a barbastelle maternity-colony network, ancient woodland, chalk-stream ecology, farmland-bird habitat or rare botanical assemblage. Those are receptor-specific questions and must be assessed on their own terms.

The appropriate sequence is therefore clear. EIA should identify the nature and significance of each effect and interaction without allowing unrelated benefits to reduce the classification of harm. The planning balance comes later, when the

decision-maker weighs properly evidenced benefits against properly evidenced adverse effects. Chapter 19 should not permit that distinction to become blurred.

19.33 Chapter 19 demonstrates a wider failure of integrated design

The most important consequence of Chapter 19 is not the number of effects classified as significant or not significant. It is what the chapter reveals about the design of East Pye as a whole.

Volume 1 asks the central question whether the Applicant has demonstrated one environmentally coherent and deliverable Scheme in which access, drainage, landscape mitigation, ecological protection, heritage mitigation, noise control, grid infrastructure, residential protection and decommissioning can all coexist within the authorised envelope. Chapter 19 should have answered that question. It does not.

The Scheme depends upon numerous interacting mitigation and engineering requirements. Ecological buffers must coexist with solar arrays, fencing and access tracks. Landscape planting must screen infrastructure without causing unacceptable harm to open-country birds, historic landscape or agricultural functionality. Drainage must protect groundwater and downstream receptors while accommodating roads, substations and BESS infrastructure. Highway access must be physically achievable without unacceptable hedge, verge, heritage, drainage or ecological damage. Noise mitigation must protect residents without relocating or screening plant in a manner that creates different environmental effects.

The same requirement applies to AIL works, gas-pipeline easements, groundwater protection, aviation safeguarding, BNG delivery and agricultural restoration. These are not optional design refinements. They are conditions which must be satisfied simultaneously if the Scheme is to be environmentally coherent.

The existing WR demonstrates repeated examples where solving one problem risks creating another. Landscape planting may damage open-country habitat or alter heritage setting. Internal haul routes may affect soils, watercourses and hedgerows. Noise barriers may create landscape effects. Drainage infrastructure may require further landtake. Retaining ecological mitigation after decommissioning may prevent restoration of the historic agricultural landscape.

Chapter 19 does not reconcile those conflicts. It largely assumes that each discipline's mitigation will operate as intended and then combines the resulting residual effects.That is the wrong test.

The relevant question is whether there is at least one physically deliverable design within the DCO envelope in which all of the environmental assumptions relied upon by Chapters 6–18 are simultaneously true. If one chapter assumes a planting belt where another requires open habitat, if one assumes a haul route

where another requires ecological protection, or if one relies on plant relocation into land constrained by drainage, heritage or aviation, the ES has not demonstrated an integrated solution.

The failure is therefore not simply one of cumulative assessment. It is a failure of integrated design. Chapter 19 exposes that problem because it is the point at which the Environmental Statement should have demonstrated that the Scheme's different mitigation regimes are mutually compatible. Instead, it shows that the Applicant has produced a series of topic-specific solutions without proving that they combine into one environmentally coherent project.

19.34 Cumulative constraint density indicates poor site selection

The concentration of environmental and infrastructure constraints affecting East Pye is itself relevant to site suitability.

The Scheme intersects or adjoins a nationally important bat landscape, multiple ancient woodlands, BMV agricultural land, sensitive heritage assets, chalk-stream systems, private water supplies, constrained rural roads, aviation safeguarding, National Gas infrastructure, existing and proposed grid infrastructure and quiet rural residential receptors. It is also proposed within a wider landscape experiencing additional pressure from Tasway, Norwich to Tilbury, other solar and BESS development and strategic housing growth. Those constraints are not distributed independently. Several occur together on the same Sites.

Site 1 combines major grid infrastructure, BESS, aviation, groundwater, private water supplies, nearby homes, landscape and transport constraints. Site 5 combines electrical infrastructure, sensitive water receptors, agricultural land and chalk-stream ecology. Other Sites combine ancient woodland, barbastelle habitat, heritage assets, narrow roads, BMV land and ecological corridors.

The number and concentration of required mitigation measures therefore provide evidence about the underlying suitability of the chosen location.

A well-sited development may require mitigation. That is normal. What is materially different at East Pye is the extent to which environmental acceptability depends upon numerous independent systems all working successfully at once: buffers, planting, highway controls, traffic management, drainage systems, groundwater protection, lighting controls, protected-species measures, noise barriers, habitat management, firewater containment and future restoration.

The greater the density of interacting constraints, the greater the risk that mitigation ceases to be a means of refining an appropriate development and becomes the mechanism by which an inappropriate location is made temporarily capable of appearing acceptable on paper.

That is particularly important when the alternatives assessment shows that the Scheme's scale and land package were substantially shaped by the Applicant's project objective rather than by an environmental carrying-capacity exercise. Volume 1 identifies that the land search was driven by the need to accommodate approximately 500 MW and that a smaller scheme was not taken forward as an alternative.

Chapter 19 should therefore not merely ask how numerous harms can be managed after site selection. Their concentration is itself evidence that this was an environmentally inappropriate landscape in which to locate a development of this extent.

The cumulative constraint density supports the wider BEPS submission that the Scheme has been fitted into the landscape through layers of mitigation rather than designed from the environmental capacity of the place.

19.35 Consequences for significance conclusions

The repeated Chapter 19 conclusions of ‘not significant’ cannot safely be relied upon because they are the product of a methodology containing several cumulative weaknesses:

- the external cumulative project selection is incomplete or insufficiently precautionary, most notably in relation to Tasway and other reasonably foreseeable development.
- the spatial presentation is misleading because large developments are reduced to point symbols rather than shown at their actual scale and geographic extent.
- broad receptor grouping risks concealing the actual worst case for individual homes, private water supplies, heritage assets, PRoWs and ecological populations.
- negligible effects are screened out before their combined significance is tested, even though repeated individually small effects may be precisely the mechanism by which a dispersed Scheme creates cumulative harm.
- Chapter 19 imports unresolved deficiencies from Chapters 6–18. Where an underlying effect has been omitted, understated or made dependent upon uncertain mitigation, the cumulative conclusion inherits that weakness.
- mitigation is frequently assumed rather than demonstrated as a completed and mutually compatible environmental solution. The fact that a topic chapter identifies a future management plan or design measure does not establish that its necessary outcome is secured or that it does not create effects elsewhere.
- paragraph 19.2.3 expressly states that the scale of effect interaction has not been identified. That omission is particularly serious for a dispersed development where spatial extent, frequency, number of affected receptors and duration may determine significance.
- temporal assessment is incomplete. Construction overlap is insufficiently defined, future cumulative project programmes are uncertain, and the

assessment does not adequately consider the possibility of sequential years of disturbance across different Sites and surrounding projects.
- replacement and repowering are not treated adequately as foreseeable intermediate construction phases despite the potential for full panel replacement, repeated BESS replacement and further transformer, cable and access works over the 60-year lifetime.
- the decommissioning baseline is internally inconsistent. Landscape, ecology, agriculture and heritage cannot each rely upon different assumptions about whether planting, grid infrastructure, drainage, cables and habitat remain after solar operation ends.

These are not isolated defects capable of being discounted individually. They operate together and in the same direction: each tends to reduce the amount of adverse information entering the final significance judgment.

The resulting predominance of ‘not significant’ conclusions should therefore be treated with substantial caution. Chapter 19 has not demonstrated that those conclusions represent the environmental worst case of the Scheme experienced as a whole.

19.36 Overall conclusion

Chapter 19 does not demonstrate that the cumulative and in-combination effects of East Pye are acceptable. It demonstrates the limitations of a topic-led EIA applied to an unusually dispersed and environmentally constrained development.

The Applicant has assessed the Scheme principally as a collection of residual effects after topic-specific mitigation rather than asking what happens to the landscape, community or environmental receptor when the authorised development is experienced as a whole. That distinction is decisive because the same homes, roads, aquifers, ecological networks, heritage settings and rural landscapes are exposed repeatedly to different components of one project and to surrounding development.

The methodology then further narrows that picture by excluding effects below Minor, aggregating receptors, declining to assess interaction scale, assuming mitigation and treating construction, operation and decommissioning through simplified temporal assumptions.

The result is not a reliable demonstration of cumulative acceptability.

Receptors experience one East Pye Solar Scheme, not nineteen Environmental Statement chapters.

19.37 Remedies sought

BEPS submits that the primary remedy is refusal. The deficiencies in Chapter 19 are not confined to missing tables or narrative. They arise from the Scheme's dispersed configuration, incomplete cumulative context, unresolved cross-topic interactions and failure to demonstrate one integrated environmental solution.

If the Examining Authority nevertheless considers that the defects might be capable of remedy within Examination, the Applicant should be required to provide a revised cumulative and in-combination assessment before any positive recommendation is made.

That assessment should contain a complete cumulative-development schedule based upon a consistent and transparent inclusion methodology and should include Tasway within the main assessment or, at minimum, a reasonable worst-case sensitivity scenario. Relevant housing, solar, BESS, transmission and major infrastructure developments should be represented by their actual red-line boundaries, corridors and principal construction footprints rather than by point symbols.

The Applicant should provide GIS-based receptor mapping showing where East Pye and other developments overlap the same settlements, homes, heritage settings, ecological networks, catchments, private water-supply areas, roads and PRoWs. The assessment should identify actual worst-affected receptors rather than relying predominantly on broad receptor groups.

A separate internal cumulative assessment of East Pye should identify the maximum realistic simultaneous construction scenario, including active Sites, compounds, haul roads, piling areas, HDD operations, watercourse crossings, highway interventions and illuminated work areas. That assessment should demonstrate the combined effect of the Scheme upon the same receptor networks.

The Applicant should also provide an interdisciplinary mitigation-conflict matrix demonstrating that landscape planting, ecological mitigation, drainage, highway works, noise controls, aviation safeguarding, gas and utility requirements, groundwater protection, BNG and agricultural restoration can all be delivered simultaneously within one physical design.

Functional ecological assessment should be undertaken at the scale of the receptor, including barbastelle maternity-colony landscapes and Core Sustenance Zones, ancient woodland connectivity, farmland-bird habitat, great crested newt pond networks, Roadside Nature Reserves and botanical corridors, and the River Tas and associated aquatic system. This should include the interaction of East Pye with relevant external development.

A catchment-scale water assessment should combine soils, drainage, groundwater, piling, HDD, trenching, contamination, private water supplies, BESS and transformer firewater, ordinary watercourses and downstream chalk-stream receptors within one source–pathway–receptor framework.

A specific Site 1 cumulative infrastructure-risk assessment should address the BESS, Project and National Grid 400kV infrastructure, overhead-line works, railway, utilities, groundwater, private water supplies, homes, Tibenham Airfield, landscape, heritage and construction access, and demonstrate that all safety, environmental and engineering requirements can be met simultaneously.

The Applicant should provide a programme-level cumulative transport model showing overlapping East Pye construction activity together with Tasway, Norwich to Tilbury, relevant housing and other major development, including HGV traffic, AIL routes, workforce movements, holding areas, vulnerable road users, school restrictions, bridge constraints and rural-road capacity. This should respond directly to National Highways' request for greater cumulative granularity.

A cumulative aviation assessment should treat Tibenham Airfield as a shared receptor and assess East Pye together with Tasway and other relevant infrastructure, including solar arrays, substations, pylons, cranes, lighting, glint and glare and the availability of emergency landing terrain.

The Applicant should also provide cumulative EMF hotspot mapping for the complete electrical environment, including East Pye cables, Project Substations, BESS, National Grid infrastructure, existing and diverted overhead lines and relevant surrounding electricity projects, with specific assessment of ecological and aquatic receptors where appropriate.

Replacement and repowering should be assessed as foreseeable intermediate construction phases rather than subsumed within operation. Decommissioning should then be assessed separately against the future environmental baseline rather than assumed to be similar to or less harmful than construction.

Finally, the Applicant should provide one coherent post-decommissioning baseline applied consistently across landscape, heritage, ecology, agriculture, soils and water. That baseline should identify which substations, pylons, cables, ducts, foundations, access works, drainage systems, mitigation planting and BNG habitats will remain and which will be removed.

The resulting assessment must then feed back into significance and design. Additional information is not sufficient if the Applicant simply retains the same significance conclusions. Where the revised cumulative assessment identifies greater harm, the response must be avoidance, relocation, reduction or other substantive design change.

Unless those deficiencies can be remedied within Examination without materially changing the assessed Scheme, the Examining Authority should conclude that the Environmental Statement has not demonstrated the cumulative environmental acceptability of East Pye Solar. That failure should weigh materially against consent and, taken with the unresolved site-selection, ecological, transport, water, heritage, agricultural, aviation and deliverability objections set out elsewhere in BEPS's Written Representation, supports refusal of the application.

Chapter 20: Residual Effects – The True Environmental Balance

The planning balance must now be undertaken against the current national policy framework. The National Planning Policy Framework published in August 2026 is a material consideration for decision-making from the date of its publication. It gives substantial weight to the benefits of renewable and low-carbon energy development, but expressly requires proposals to be assessed against the national decision-making policies in the Framework taken as a whole. The existence of renewable-energy benefits therefore does not disapply the separate requirements relating to heritage, biodiversity, flood risk, good design, agricultural land, pollution, public protection or other environmental effects.

For this NSIP, the primary statutory policy framework also now includes the 2025 National Policy Statements EN-1 and EN-3, which came into force in January 2026. Those policies continue to support nationally significant renewable infrastructure, but they do not remove the requirement to assess and weigh site-specific adverse effects or to demonstrate proper avoidance and mitigation. EN-3 expressly requires applicants, where possible, to avoid Best and Most Versatile agricultural land, to explain the choice of site, to prefer poorer-quality agricultural land where agricultural land is necessary, and to secure appropriate soil mitigation and restoration.

20.1 Executive conclusion: the residual-effects summary is not reliable

Chapter 20 does not provide a reliable statement of the true residual environmental effects of East Pye Solar. It presents a strikingly asymmetric picture: extensive significant landscape and visual harm is acknowledged, while almost every other environmental topic is reduced to ‘no significant residual effects’ once mitigation has been assumed. At the same time, substantial beneficial effects are attributed to ecology, water quality, employment and skills.

That outcome is not credible when tested against the Applicant’s own evidence or the Relevant Representations of statutory and specialist consultees.

The Applicant itself identifies Major, Major to Substantial and Moderate adverse effects across numerous landscape character areas, individual Sites, settlements, residential receptors, Public Rights of Way and promoted routes. Significant effects remain during operation and, in a number of cases, remain Moderate Adverse even at Year 15. Site 1 continues to experience a Major Adverse landscape-character effect at Year 15; Tas Tributary Farmland and Great Moulton Plateau Farmland remain Moderate Adverse; and numerous residential and recreational receptors continue to experience significant effects.

Yet Chapter 20 states that construction produces no significant residual effects on ecology and biodiversity, the water environment, cultural heritage, transport and access, noise and vibration, ground conditions, electromagnetic fields or ‘other environmental matters’. It similarly records no significant operational

residual effects for heritage, transport, noise, soils, ground conditions or EMF. It then characterises operational effects on bats, rivers, hedgerows, skylark and other ecological receptors as Moderate Beneficial and water-quality effects as Major Beneficial.

That inconsistency is now particularly important because the assessment cannot lawfully be treated as a collection of isolated topic conclusions. The same physical development produces the effects assessed across the ES. A Scheme which the Applicant accepts will produce Major Adverse and other Significant effects upon landscape character and visual receptors cannot simply be assumed to have no corresponding material consequences for heritage settings, tranquillity, recreational experience, ecological connectivity, community amenity or the functioning of the rural landscape where those receptors depend upon the same landscape context.

The issue is not that a Significant LVIA effect must automatically produce a Significant effect in every other EIA chapter. Different disciplines apply different methodologies. The issue is whether the contrasting conclusions have been adequately reconciled. Where the Applicant's own landscape assessment identifies substantial and persistent change to the character and perception of Sites 1, 7 and 8, the Great Moulton Plateau and Tas Tributary farmland, and numerous residential and recreational receptors, the Examination should require a coherent explanation of how that same landscape-scale transformation results in little or no residual effect when assessed through other environmental disciplines.

The consultee evidence demonstrates why those conclusions cannot safely be accepted.

Norfolk Wildlife Trust expressly addresses the Applicant’s claimed absence of significant adverse residual ecological effects and does not accept that the matter is resolved. It states that important ecological issues require detailed scrutiny and that further information and design refinement are necessary before the Project can be considered acceptable in ecological and environmental terms. NWT requires the Scheme to avoid harm to designated sites, priority habitats and protected species and to contribute meaningfully to nature recovery and ecological connectivity at landscape scale. That is fundamentally different from the settled picture presented in Chapter 20.

The Environment Agency’s application-stage Relevant Representation is still more direct. It identifies outstanding matters concerning floodplain storage, temporary works, culverting, water-quality monitoring, pollution prevention, BESS and substation design, piling and deep foundations, underground cabling, thermal effects, private and public water supplies, historic contamination, ecology and fisheries. It also states that specified pre-commencement activities are not presently covered by environmental management plans and therefore create an unmitigated risk of environmental harm. Those are not compatible with an unqualified conclusion that there will be no significant residual effects on water, ground conditions, ecology or other environmental matters.

Historic England likewise does not support the implication that heritage harm has disappeared. Its Relevant Representation recognises that the Scheme would change the settings of designated heritage assets; that some effects amount to

significant policy harm; and that residual heritage effects are likely to remain after mitigation. It identifies particular concerns involving a Scheduled Monument, two Grade I buildings, two Grade II* buildings, 42 Grade II buildings and four Conservation Areas, while also confirming that parts of the Order Limits remain archaeologically unevaluated. Chapter 20 nevertheless reduces cultural heritage to ‘no significant residual effects’.

The same problem arises with transport. Chapter 20 states that construction produces no significant residual transport effect. National Highways, however, requires further assessment of strategic junctions and greater granularity in the cumulative construction-traffic assessment, together with enforceable controls on traffic volumes and distribution. Norfolk County Council rejects or raises substantial concerns about important parts of the Applicant’s local access and routeing strategy. A conclusion of ‘not significant’ plainly does not establish that the access strategy is agreed, environmentally acceptable or physically deliverable.

Ground conditions demonstrate the same methodological problem. The Environment Agency identifies substantial uncertainty across the Scheme, including Principal Aquifers, private abstractions, piling pathways, underground cabling, historic contamination and the adequacy of later Foundation Works Risk Assessments. The Applicant has not undertaken comprehensive intrusive investigation across the Scheme and instead leaves decisive work until after consent. Chapter 20 nevertheless states that there will be no significant residual ground-condition effect.

These are not isolated disagreements over technical detail. They reveal a systemic problem with Chapter 20. The Applicant’s residual-effect conclusions are reached only after receptor values have been contested, effects have been divided between disciplines, future mitigation has been assumed to operate successfully, and unresolved investigation or design has been deferred.

The true residual effects therefore cannot be read simply from the final column of the Applicant’s tables.

Four defects run through the chapter.

First, the residual conclusions conflict with the Applicant’s own baseline evidence. The Scheme occupies a nationally important bat landscape, extensive BMV agricultural soils, multiple sensitive water catchments and aquifers, an unusually dense historic environment and a landscape in which the Applicant itself predicts extensive significant adverse change. The assessment repeatedly identifies a highly sensitive receiving environment and then arrives at residual conclusions that do not reflect that sensitivity.

Secondly, the conclusions conflict with the continuing qualifications and objections of consultees. NWT says further design refinement is necessary before ecological acceptability can be established. The Environment Agency identifies unresolved environmental risks across several disciplines. Historic England confirms residual heritage harm and incomplete archaeology. National Highways and Norfolk County Council identify unresolved construction and access issues.

The Examining Authority has itself required Statements of Common Ground with the Environment Agency, Historic England, Natural England, National Highways, Norfolk County Council, Norfolk Wildlife Trust, aviation bodies, National Gas and other parties precisely because material matters remain in dispute or outstanding.

Thirdly, Chapter 20 does not capture the cumulative and interacting nature of the harm. The same historic agricultural landscape supports heritage assets, protected species, productive soils, rural communities, recreational routes and connected water systems. The Applicant divides those effects between separate technical disciplines and then reports each residual conclusion independently. Historic England has identified cumulative concern with Tasway Energy Park and associated BESS development, while NWT and local-authority evidence identify landscape-scale ecological fragmentation and cumulative pressure from multiple energy schemes. A receptor does not experience those impacts separately. It experiences one transformed landscape.

Fourthly, Chapter 20 treats mitigation-dependent and potentially irreversible change as acceptable without first demonstrating why development at this location and scale is necessary. The result is particularly stark where the Applicant acknowledges irreversible loss or downgrading of BMV agricultural land, long-term landscape harm and significant effects persisting beyond Year 15, while simultaneously asking the decision-maker to accept major environmental restructuring as the residual consequence of a nominally temporary project.

The correct conclusion is therefore not that East Pye has few significant residual effects. It is that the Applicant's significance framework has progressively filtered out or discounted much of the harm that remains.

These conclusions do not describe the true residual effects of East Pye. They describe what remains after disputed effects have been downgraded, uncertain mitigation has been assumed to succeed, unresolved matters have been deferred and interconnected harms have been divided between technical chapters.

20.2 Residual harm can only be identified after genuine avoidance

There is a more fundamental problem. An effect cannot properly be treated as 'residual' until the mitigation hierarchy has been applied in the correct order.

The relevant sequence is:

avoid → minimise → mitigate → identify residual harm.

That sequence matters because mitigation is not a substitute for avoidance. Planting, buffers, construction management, future route refinement, habitat creation, archaeological recording or later monitoring may reduce consequences

after a development has been chosen. They do not demonstrate that the underlying impact was unavoidable.

BEPS' case throughout Chapters 1, 2 and 5 is that East Pye has not been designed from that starting point. The Applicant settled upon a transmission-scale development of approximately 500 MW, assembled a dispersed land package around grid opportunity and subsequently sought to accommodate the Scheme within the environmental constraints of that land. The result is ten dispersed Sites, extensive cable corridors, BESS and substation infrastructure, major grid works and a construction access system extending across a highly constrained rural landscape.

Norfolk Wildlife Trust's Relevant Representation is particularly important in this respect. NWT recognises the need for renewable electricity but criticises the absence of a strategic approach to siting large-scale solar development in Norfolk and records the perception that schemes are being driven principally by land availability and grid connection availability. It requires avoidance of harm to designated sites, priority habitats and protected species and says further design refinement is necessary before East Pye can be considered environmentally acceptable. That directly supports the distinction between designing around the environmental capacity of a place and selecting land first and mitigating afterwards.

The Applicant's own design evolution demonstrates that avoidance was available. Development has been removed or reduced in particular locations in response to combinations of heritage sensitivity, BMV land, ancient woodland and ecology, residential proximity and aviation concerns. As Chapters 1 and 5 of this Written Representation demonstrate, materially similar constraints remain elsewhere within the retained Scheme. The issue is therefore not whether the Applicant has ever avoided harm. It is whether the same avoidance threshold has been applied consistently across the project.

The consultee evidence reinforces that avoidance remains necessary in several areas.

Historic England confirms that the countryside itself forms part of the setting of important rural churches, listed buildings and medieval settlements. It recognises significant setting effects and residual harm after mitigation. Planting may screen infrastructure, but screening does not necessarily preserve historic openness, agricultural relationships or the legibility of settlement within its landscape. Where that relationship is fundamental to significance, the first question should be whether development should be removed or relocated, not how it can later be screened.

NWT similarly requires landscape-scale ecological connectivity to be protected. Established ancient woodland relationships, species-rich hedgerows and bat commuting networks cannot automatically be recreated by later planting. Its position that further design refinement is required is therefore an avoidance issue, not merely a demand for more compensation.

The Environment Agency applies the same logic to watercourses. Its Relevant Representation states that new culverts are unacceptable and should be replaced with clear-span bridges in accordance with its anti-culverting policy.

Where culverting cannot be avoided, the need must be justified. That is the mitigation hierarchy in practical form: first avoid the damaging intervention; only then consider how unavoidable works can be reduced or controlled.

Norfolk County Council's highway position likewise requires the Applicant to reduce reliance on unsuitable minor rural roads by moving construction traffic onto internal haul routes where practicable. But such redesign then has environmental consequences of its own for soils, hedgerows, drainage, watercourses, ecology and heritage. This illustrates why mitigation cannot be assessed discipline by discipline. A transport solution that creates additional ecological or hydrological harm is not proof that the original environmental effect has been mitigated; it may simply transfer harm from one receptor to another.

The same principle applies to archaeology. Historic England confirms that parts of the Order Limits remain incompletely evaluated and that previously unknown archaeology potentially equivalent in significance to designated assets may still be identified. Archaeological recording after destruction is not equivalent to avoiding the archaeological resource. Where further investigation may identify assets requiring preservation in situ, the residual effect cannot properly be fixed before that work is complete.

Chapter 20 therefore starts its residual-effects exercise too late. It assumes the essential form and scale of East Pye and asks what remains after mitigation. The Examination must first ask whether the harm could have been removed through a different design.

That question is especially important because no demonstrated need case establishes that this particular development must occupy these particular Sites at this particular scale. National policy support for renewable energy does not prove a locational necessity for every part of East Pye. Nor does grid availability establish that all environmentally constrained land assembled by the Applicant must be developed.

An effect cannot properly be characterised as unavoidable residual harm where the Applicant has not demonstrated why the development causing it could not instead have been deleted, relocated or reduced.

This is the central connection between Chapters 5 and 20. The alternatives assessment asks whether a materially less harmful scheme or location was available. The residual-effects assessment can only begin once that question has been answered. If environmentally damaging parcels, routes or infrastructure remain because they are needed to preserve a predetermined 500 MW project rather than because their impacts are genuinely unavoidable, their harm should not be discounted as an acceptable 'residual effect'.

The proper Examination question is therefore not merely:

What environmental harm remains after the Applicant's proposed mitigation?

It is:

What environmental harm would remain after every reasonable opportunity for avoidance, site deletion, relocation, rerouting and reduction in scale had genuinely been exhausted?

On the evidence currently before the Examination, that exercise has not been completed. Chapter 20 therefore understates the true residual harm before the planning balance has even begun.

20.3 The Applicant's own Chapter 20 demonstrates a landscape-scale conflict

Chapter 20 itself establishes that East Pye is not a development causing a small number of local visual effects. It is a landscape-scale intervention whose significant adverse effects extend across the Scheme and remain after mitigation.

Table 20.1 identifies significant construction effects across NCA 83 South Norfolk and High Suffolk Claylands, the Tas Rural River Valley, Tas Tributary Farmland, Chet Tributary Farmland, Thurlton Tributary Farmland with Parkland and Great Moulton Plateau Farmland. It records Major Adverse effects on the landscape character of Sites 1, 7 and 8 and repeated Major or Major to Substantial visual effects on residents, PRoWs and promoted recreational routes.

The operational picture is not materially different. Table 20.2 records long-term Major Adverse effects for the BESS area, Site 1 and Site 8, widespread Moderate Adverse effects across other Sites and LCAs, and repeated Major or Major to Substantial effects on individual visual receptors. Even at Year 15, significant effects remain on Tas Tributary Farmland, Great Moulton Plateau Farmland, Site 1, Site 7, Site 8 and numerous PRoW, residential and recreational receptors.

Norfolk County Council independently questions whether even those conclusions go far enough. Its Relevant Representation states that the Applicant's emphasis on the absence of formal landscape designation may underplay the experiential and recreational qualities of the area. It considers the effects on users of PRoWs and promoted routes potentially understated given the scale of the Scheme, the medium-to-long-term duration of change and the major alteration to the surrounding landscape. NCC also requires greater certainty about the timing and effectiveness of landscape mitigation.

That matters because the proposed planting is itself part of the change. The existing landscape is characterised by open and semi-open agricultural relationships between villages, churches, farms, lanes, woodland, hedgerows and river valleys. Screening the Scheme through substantial new woodland, hedges and other planting may eventually reduce views of panels, but it does not restore that landscape. It creates a different one.

The Applicant's Year 15 assessment therefore does not demonstrate reversibility. It demonstrates that significant harm persists even after fifteen years of landscape intervention intended to conceal the development.

Nor can this harm be isolated as a visual matter. The landscape being altered is simultaneously the setting of medieval settlements and listed buildings, the

functional habitat of nationally important bat populations, the agricultural resource supporting BMV soils and Countryside Stewardship land, and the surface and groundwater catchment linking ponds, ditches and chalk streams.

The significance of Chapter 20 is therefore greater than its landscape tables suggest. Those tables establish the physical scale of the intervention against which every later claim of ‘no significant residual effect’ must be tested.

East Pye is not simply being inserted into the South Norfolk landscape. On the Applicant’s own assessment, this ancient landscape would have to be substantially and enduringly reorganised around East Pye.

That admitted landscape-scale transformation is important when the conclusions of the other ES disciplines are considered. The point is not that a Significant LVIA effect must automatically produce a Significant effect under every other EIA methodology. Different disciplines apply different criteria. The issue is whether the contrasting conclusions have been adequately reconciled. Where the same physical development produces Major Adverse and other Significant changes to landscape character, settlements, residential receptors, PRoWs and recreational routes, the Examination should require a coherent explanation of how that same transformation produces little or no residual effect when considered through heritage, ecology, water, community amenity and other environmental disciplines.

20.4 The historic landscape cannot be reduced to ‘no significant cultural heritage effect’

Against that admitted landscape transformation, Chapter 20’s conclusion that there will be ‘no significant residual effects’ on cultural heritage during construction, operation or decommissioning is particularly difficult to sustain.

Historic England describes the Scheme area as an extensive, predominantly agricultural part of South Norfolk characterised by important rural churches, listed buildings and small conservation areas focused upon medieval settlement. Its Relevant Representation identifies cumulative impact with Tasway Energy Park and associated BESS development as a specific area of concern requiring further consideration.

The importance of that evidence is that the historic environment is not composed of isolated listed buildings standing independently of their surroundings. The churches, farmsteads, conservation areas, lanes, fields and settlements form a surviving historic rural landscape.

Historic England’s earlier advice expressly required heritage setting to be assessed beyond visual intervisibility, including the landscape as a whole and the effects of traffic, noise and other environmental change. It also required cumulative effects to be considered.

Historic England’s application-stage evidence identifies particular concerns involving one Scheduled Monument, two Grade I listed buildings, two Grade II* listed buildings, 42 Grade II listed buildings and four Conservation Areas. It also confirms that parts of the Order Limits remain incompletely archaeologically

evaluated and that previously unknown remains potentially equivalent in significance to designated assets may still be discovered.

That is fundamentally inconsistent with the apparent finality of Chapter 20.

A Scheme cannot produce Major and long-term change to the landscape surrounding medieval settlements, rural churches and listed farmsteads and then treat the historic-environment consequence as nil merely because individual asset effects have been pushed below an EIA significance threshold.

Nor does screening necessarily mitigate heritage harm. In an historic agricultural landscape, openness may itself form part of setting. A new woodland belt that hides panels may simultaneously sever historic visual relationships between church, village, lane and farmland. The mitigation can therefore change the heritage resource it is supposed to protect.

The problem extends beyond setting. Unknown archaeology remains capable of requiring avoidance or redesign. Historic England specifically identifies the Cable Route Corridor as an area requiring further consideration, while the Applicant’s own archaeological mitigation continues to depend upon later survey, trenching and detailed design.

Accordingly, the archaeological baseline is not fully closed and the setting assessment remains dependent upon assumptions concerning future planting and mitigation. Chapter 20 nevertheless reports the outcome as though the historic-environment case were settled.

It is not.

The correct residual effect must account for the permanent alteration of relationships that have developed over centuries: between medieval churches and their rural hinterlands, historic settlements and surrounding fields, farmsteads and lanes, and archaeological landscapes beneath those fields.

That harm does not disappear because panels may ultimately be removed.

A Scheme cannot simultaneously produce major and long-term change to the historic agricultural landscape surrounding medieval settlements and churches yet be treated as producing no significant residual historic-environment consequence merely because individual asset effects fall below the Applicant’s EIA significance threshold.

20.5 The ecological ‘benefits’ contradict the Applicant’s own ecological baseline

Chapter 20’s ecological conclusions are still more difficult to reconcile with the evidence. It states that there will be no significant adverse residual ecological effects during construction or decommissioning, but predicts Moderate Beneficial operational effects for hedgerows, ponds, rivers, woodland, skylark, bats, badger, water vole and otter.

That conclusion is not supported by the sensitivity of the receiving environment.

The Applicant’s own evidence establishes that the Order Limits support a bat assemblage of national importance. Barbastelle was the third most frequently recorded bat species and was recorded across the survey area. Multiple maternity colonies occur around the Scheme and overlapping Core Sustenance Zones extend across the development landscape. The ecological receptor is therefore not an individual roost tree or isolated woodland. It is a landscape-wide network of maternity colonies, satellite roosts, commuting routes and foraging grounds functioning as a barbastelle metapopulation.

That landscape function is inseparable from the hedgerows, ancient woodland, veteran trees, ponds, ditches, riparian corridors and field margins through which the colonies move and feed.

The Norfolk Barbastelle Study Group’s evidence makes the prematurity of the Application particularly clear. Its work confirmed a maternity colony at Little Wood through radiotracking, with a pre-parturition emergence count of 36 and an estimated post-parturition colony of approximately 55 bats. Acoustic evidence also indicates likely additional maternity colonies at Brooke Wood East and Lower Spring Wood, while other woodlands, particularly toward the eastern end of the Scheme, remain insufficiently surveyed.

The Study Group’s conclusion is fundamental: the effects of East Pye cannot properly be assessed without a fuller understanding of barbastelle distribution and habitat use. Further radiotracking and woodland assessment are required to establish the maternity-colony network, flight routes, foraging areas and functional relationships across the Scheme.

The Applicant has therefore reached a finding of Moderate Beneficial effect on bats before the baseline against which that effect must be measured has even been completed.

That is premature.

The independent scientific evidence makes the claimed benefit still less secure. Tinsley et al. (2023), in a paired study of 19 operational solar farms and 19 control sites in England, found significant negative effects of ground-mounted solar PV on bat activity. The subsequent Wildlife Trust literature review records that Tinsley et al. found lower activity for six of eight recorded species or species groups and identifies the study as directly relevant UK evidence on solar development and bats. The recent breeding-bird research relied upon elsewhere in this WR similarly cautions that evidence of biodiversity benefits from well-managed solar farms does not remove the need to locate solar development away from nature-sensitive areas.

The significance is not that every solar farm necessarily reduces every bat species. It is that the Applicant cannot legitimately assume that grassland creation beneath panels will produce a beneficial outcome for bats when peer-reviewed UK evidence demonstrates the opposite can occur.

That uncertainty is especially serious here because East Pye is not being proposed on ordinary farmland with low bat activity. It is proposed across a nationally important landscape supporting multiple barbastelle maternity colonies.

Norfolk Wildlife Trust accordingly does not accept that the Applicant's 'no significant adverse residual effect' conclusion resolves the issue. Its Relevant Representation states expressly that further information and design refinement are required before the Scheme can be considered ecologically and environmentally acceptable. It requires protection of designated sites, priority habitats and protected species and landscape-scale ecological connectivity.

Natural England's position is also materially more cautious than Chapter 20 implies. Its Relevant Representation leaves protected-species licensing as an amber issue. It records that licences may be required for roosting bats and strongly advises that the licensing position be addressed at the earliest opportunity, including through its Letter of No Impediment process.

That is important because barbastelles are European Protected Species. If the Scheme risks an offence, a licence cannot simply be assumed. The licensing tests include the absence of a satisfactory alternative and the requirement that the action does not prejudice maintenance of the affected population at favourable conservation status in its natural range.

For East Pye, that conservation-status test cannot rationally be answered by considering individual roosts in isolation. The relevant question is whether the landscape-wide maternity metapopulation can continue to function when its overlapping Core Sustenance Zones are subjected to panels, fencing, road crossings, lighting, vegetation removal, construction disturbance, substations, cable works and repeated replacement activity over 60 years. The Applicant has not demonstrated that.

Indeed, the Study Group says the colony network itself requires further investigation. It is impossible to demonstrate no deterioration in conservation status where the distribution and functional use of the affected metapopulation have not yet been fully established.

The botanical position compounds the defect. There has been no full botanical survey. The Applicant's own extended habitat survey expressly states that it is not a full botanical survey and that records of notable plants were incidental to UKHab mapping. BEPS has specialist evidence from a Level 6 botanist identifying the potential importance of field margins, roadside verges and other semi-natural habitats for rare and locally significant plant assemblages. Those are precisely the habitats threatened by road widening, visibility splays, accesses, haul roads, cable works and compounds.

A habitat cannot credibly be said to experience a beneficial residual effect where the botanical resource being affected has never been properly surveyed.

The same problem runs through the wider ecological baseline. The Order Limits interact with ancient woodland, veteran trees, SSSI woodland, County Wildlife Sites, Roadside Nature Reserves, Countryside Stewardship habitat, farmland birds and hydrologically connected watercourses. Natural England itself records hydrological connectivity between the Scheme and six SSSIs together with Saxlingham Grove and Popes Wood/Doylys Grove Ancient Woodlands.

Chapter 20 therefore turns uncertainty into benefit. It treats future grassland, planting and habitat management as a demonstrated ecological gain while

discounting the established ecological function of the landscape that would be industrialised to create it. That is the wrong comparison.

The correct baseline is not generic intensive arable land. It is the landscape that exists now: a publicly and privately managed ecological/conservation network containing nationally important bats, maternity-colony habitat, ancient woodland, rare and potentially unsurveyed flora, farmland birds, established hedgerows, ponds and watercourses.

A finding of ‘Moderate Beneficial’ effect on bats is particularly difficult to reconcile with an Applicant baseline identifying a nationally important bat assemblage, peer-reviewed evidence that operational solar farms can materially reduce bat activity, specialist evidence that the full barbastelle maternity metapopulation has not yet been mapped, and Natural England’s continuing treatment of protected-species licensing as unresolved.

The unavoidable conclusion is that the ecological assessment is not merely optimistic. In critical respects, it is premature. The Applicant is asking the Examining Authority to accept a beneficial residual effect before it has established the complete ecological baseline, before it has demonstrated maintenance of favourable conservation status for European Protected Species, and without having undertaken even a proper botanical survey of the habitats most exposed to construction.

That is not a defensible residual-effects assessment. It is a reason why development consent should not presently be granted.

20.6 Habitat creation cannot compensate for loss of ecological function

Chapter 20 converts much of the Scheme’s ecological harm into a claimed operational benefit because existing agricultural land would be converted to grassland and because hedgerows, ponds, woodland and other habitats would be created or enhanced. That approach confuses habitat quantity with ecological function.

The Applicant’s BNG baseline records approximately 942.66 ha of cropland and 95.10 ha of grassland across the Sites. That may be legitimate metric classification, but it does not distinguish between generic intensive cropland and land already performing specific ecological functions through Countryside Stewardship, open nesting habitat, winter stubble, seed-rich margins, skylark plots or other management. BEPS’ evidence shows that affected stewardship land has functions relevant to skylark, lapwing, turtle dove and other declining farmland birds. The Applicant’s own breeding-bird surveys confirm numerous skylark territories.

Those functions cannot simply be replaced by the label ‘grassland’.

Lapwing require extensive open ground and sightlines. Turtle dove depend upon a particular combination of dense nesting habitat, seed-rich forage and water.

Skylark require open nesting and foraging conditions. Newly planted hedges and grassland beneath panels do not necessarily provide those conditions, and may positively remove them through enclosure, fencing and infrastructure. BEPS' Chapter 8 records that generic new planting would not provide immediate or necessarily equivalent turtle-dove habitat, while the stewardship purpose of land remains relevant even where a particular species was not recorded breeding in one survey year.

The same defect is acute for bats. The value of a hedgerow is not determined simply by its length or metric condition. Its ecological value depends upon where it lies between maternity roosts and foraging habitat, whether it remains dark, whether it contains mature trees, its structure and continuity, and whether it forms part of an established commuting network. The Applicant's own surveys establish bat use across the Scheme. The receptor is therefore the connected landscape of roosts, woodlands, watercourses, tree lines, hedgerows and dark corridors, not isolated habitat units.

Norfolk Wildlife Trust specifically questions the assumption that relatively small hedgerow breaks can be treated as harmless, particularly for barbastelle. A retained hedge may cease to perform its existing function if it is illuminated, severed, narrowed, repeatedly disturbed or enclosed by development. NWT also warns that new planting cannot automatically replace mature hedgerows and established commuting routes, which may take decades to develop equivalent function.

That temporal deficit matters. A new hedge becoming useful in twenty or thirty years is not mitigation for loss of an established maternity-colony route at the point construction begins.

Ancient woodland illustrates the same problem. Natural England is prepared to treat ancient woodland and ancient/veteran tree matters as capable of resolution only if the Applicant's 30 m buffers and associated controls are secured consistently through the CEMP, LEMP and DEMP. But a buffer does not recreate the ecological relationship between a wood and the surrounding hedgerow, field, pond and dark-corridor network. Woodland retained physically can still be functionally isolated by development.

The South Norfolk Claylands network is also hydrological. Ponds, ditches, Hempnall Beck, the River Tas and other watercourses link terrestrial and aquatic habitats. Norfolk Wildlife Trust identifies lowland fen associated with Fritton Grange Meadows and Hempnall Beck and states that insufficient evidence has been provided to demonstrate that HDD would not alter the groundwater processes upon which that habitat depends. The Environment Agency separately identifies unresolved effects on fish, European eel, aquatic invertebrates, riparian habitat and hydrologically connected receptors. New ponds or grassland elsewhere do not compensate for deterioration in an established connected water system.

The botanical baseline makes the Applicant's claimed gains still less reliable. There has been no full botanical survey. Narrow roadside verges, field margins, hedgebanks and ditch edges—precisely the habitats most exposed to accesses, road widening, visibility splays and cable works—may support rare or locally important assemblages that have never been properly mapped. A habitat metric

cannot demonstrate replacement of an ecological resource that has not first been identified.

This is the central flaw in the Applicant's beneficial-effect case. Metric units count habitat type, area, condition and projected uplift. They do not establish that the same species can use the new habitat in the same way, at the same time, in the same landscape position.

The statutory and specialist evidence converges on that point. The Environment Agency addresses aquatic connectivity; Norfolk Wildlife Trust addresses landscape-scale ecological networks; the Tree Warden Network addresses mature trees and hedgerows; South Norfolk Council seeks protection of dark corridors and important bat routes; and the Norfolk Barbastelle Study Group seeks further survey of the maternity-colony network.

A positive BNG percentage therefore does not answer the decisive ecological question.

A numerical or habitat-based gain does not prove functional equivalence. East Pye may increase the measured area of grassland, hedgerow or other habitat while simultaneously degrading the established ecological network that makes this landscape valuable. Where equivalent function cannot be demonstrated from the moment of loss, the proper response is avoidance, not compensation.

20.7 The claimed major water benefit is not credible while regulatory risks remain unresolved

Chapter 20 states that construction would produce no significant residual effect on the water environment and then attributes a **Major Beneficial** operational effect to reduced agricultural chemical and fertiliser application and associated nutrient loading.

That conclusion is impossible to reconcile with the unresolved evidence before the Examination.

The Environment Agency has consistently identified material uncertainty over the Scheme's hydrogeological setting, groundwater–surface water interaction, piling, deep foundations, underground cabling, watercourse crossings, private abstractions, pollution prevention and the BESS and substation infrastructure. At scoping stage it expressly stated that the Applicant had not adequately demonstrated its understanding of the hydrogeological setting and that the groundwater baseline was informed largely by a limited set of historic exploratory-hole records.

Those concerns have not disappeared. The Applicant's own Chapter 16 confirms that Ground Investigation and Foundation Works Risk Assessments for the BESS and structures requiring deep foundations or piling will be undertaken **post-consent**. The FWRA is intended precisely to assess the risk that foundations could create contaminant pathways into deeper groundwater. Hydrogeological risk assessment for HDD beneath aquifers, watercourses or sensitive ecological receptors is likewise deferred post-consent 'if required'.

That is not evidence of an established negligible residual effect. It is evidence that material groundwater risks have not yet been investigated sufficiently to determine the final mitigation.

The private-water-supply position is particularly serious. The Environment Agency originally identified 35 private water supplies within 250 m for which accurate locations and abstraction strata were unavailable. It subsequently required the abstraction search to extend beyond 250 m because impacts could not be discounted where Principal Aquifers with high transmissivity occur. It identified six licensed groundwater abstractions within 1 km, including a public-water-supply borehole at Tivetshall whose Source Protection Zone extends into the Scheme area.

The Applicant’s later mapping does not cure that defect. It shows concentrations of private wells and supplies around the Site 1 BESS/grid hub and Site 5 substation, but remains principally a proximity exercise rather than a receptor-specific hydrogeological assessment. It does not establish abstraction depth, strata, flow direction, hydraulic connectivity, travel time or contaminant pathway.

The Environment Agency also identified inadequate provision to monitor and respond to leaks and spills from BESS and substation infrastructure and insufficient control of potentially contaminated firefighting runoff. It required adequate lining, containment and pollution-control measures. The later reference to impermeable membranes, shut-off valves and tankering remains an outline containment concept rather than a demonstrated receptor-specific engineering solution.

Flood risk is similarly unresolved. The LLFA considered that impermeable area had been underestimated, that infiltration viability had not been established and that the submitted flood material contained incomplete and inconsistent information. It specifically disagreed with attempts to dismiss changes in runoff and groundwater recharge arising from solar panels and infrastructure.

Site 5 demonstrates why these questions cannot be abstracted into a scheme-wide beneficial conclusion. The Site is linked through ditches and watercourses to the River Tas chalk-stream system and has sensitive private water supplies close to its boundary. Local evidence identifies a watercourse treated by the Applicant as a field drainage ditch despite its hydrological connection to the Tas, and the Environment Agency’s Relevant Representation states that information concerning watercourse crossing locations and design remains insufficient. It advises that new culverts should be avoided and that clear-span crossings should be used wherever practicable.

The ecological component is equally unresolved. The Environment Agency disputes the Applicant’s valuation of freshwater fish because it fails adequately to reflect critically endangered European eel and seeks additional evidence concerning EMF at watercourse crossings. It also identifies a separate potential impact on aquatic insects from polarised light reflected from panels. White-clawed crayfish evidence in the River Tas system has separately caused the ExA to require further survey information because dry-condition walkovers do not establish absence.

Against that evidence, the assertion of a Major Beneficial water effect is premature.

Reduced fertiliser use may be capable of providing a genuine local benefit. But it is only one pathway. It cannot neutralise risks arising from altered drainage, soil compaction, groundwater pathways, piling, trenching, HDD, transformer oils, BESS pollutants, firewater, sediment mobilisation or impacts to sensitive abstractions and aquatic ecology.

Nor is cessation of agricultural inputs necessarily permanent. The Scheme is described as temporary and the land is intended in principle to return to another use after decommissioning. It is therefore especially inappropriate to use the temporary removal of agricultural nutrient inputs as though it were a permanent environmental gain while infrastructure-related risks are assessed over the same 60-year period.

The proper conclusion is straightforward:

Reduced agricultural fertiliser use cannot convert this environmentally sensitive and incompletely assessed water case into a Major Beneficial residual effect while the Environment Agency and LLFA continue to identify unresolved risks to aquifers, flood storage, watercourses, private and public drinking-water supplies, fisheries, groundwater and pollution control. Chapter 20 credits the benefit before the Applicant has demonstrated control of the harm.

That uncertainty is also material under the current NPPF, which requires development to be safe for its lifetime, taking climate change into account, without increasing flood risk elsewhere, and requires assessment of flood risk from all sources and of relevant cumulative effects. Where the baseline, drainage response and effect on existing flow paths remain disputed or incomplete, a conclusion of no significant residual water effect cannot simply be treated as an established environmental fact.

20.8 Soils and agricultural land: the Applicant admits irreversible harm but understates its consequences

The Applicant’s own soils assessment contains one of the clearest admissions in the entire ES. Chapter 15 concludes that the Scheme would cause:

‘Irreversible loss or downgrading’

of BMV agricultural land, assessed as a **Moderate Adverse significant effect**.

Chapter 20 repeats that conclusion for construction. Yet it then states that there would be no significant operational or decommissioning effects on soils and agricultural land, while its cumulative assessment reduces operational loss of agricultural land and food production to Minor Adverse.

That treatment is internally incoherent.

The Applicant cannot acknowledge that part of the high-quality agricultural resource will be irreversibly lost or downgraded and then treat the consequences of withdrawing, disturbing and repeatedly trafficking that same resource over a 60-year operational period as environmentally negligible.

Natural England itself treats soils and BMV land as an **amber** issue. Its Relevant Representation states that detailed ALC survey work has not been completed across the Cable Route Corridor and warns that underground cable installation, temporary access tracks and compounds can cause permanent land-quality change and soil damage. It requires detailed ALC survey across the whole Order Limits, clarification and avoidance of peat, and evidence that permanent infrastructure has been kept off BMV land.

Natural England also records approximately 6 ha of BMV land that would be permanently lost to infrastructure and warns that, because BMV is a high-sensitivity receptor, even comparatively small areas of permanent land take or long-term downgrading may be significant, particularly cumulatively.

That directly undermines the Applicant’s tendency to minimise permanent loss by expressing it as a small proportion of a much larger regional resource.

The vulnerability of the remaining soils also matters. The Scheme affects heavy clay soils where structural damage, smearing, compaction and disruption of field drainage can be difficult to reverse. The Applicant’s own Chapter 15 recognises temporary damage to soil structure, while BEPS’ evidence identifies repeated trafficking from haul roads, construction compounds, cable trenching, soil storage, maintenance and replacement cycles as mechanisms capable of producing lasting degradation.

The distinction between ‘temporary works’ and temporary effects is therefore false. Natural England expressly warns that temporary displacement of soil associated with cable installation, access tracks and compounds can cause **permanent**ALC degradation if poorly undertaken.

The cable network is especially important. It extends for approximately 24 km, yet Natural England says complete ALC survey coverage has not been demonstrated. The Applicant therefore seeks powers for extensive trenching and construction activity without having fully established the quality of all agricultural land affected or the locations at which route refinement should first avoid the most sensitive soils.

The operational phase is not passive either. The Scheme permits replacement of solar panels, batteries and major electrical equipment over its lifetime. BESS replacement may occur repeatedly. Those activities require renewed HGV access, compounds, lifting operations and trafficking over soils whose structure and drainage may already have been altered by the first construction phase. Treating operation as producing only negligible soil effects therefore ignores foreseeable whole-life disturbance.

The restoration assumption is similarly uncertain. Natural England welcomes the commitment in the Outline Soil Resource and Management Plan to restore affected land to comparable ALC grade, but expressly advises that the commitment must be secured. An aspiration to restore soil quality is not

evidence that restoration will actually succeed after sixty years of changed management, compaction, trenching, drainage alteration and repeated infrastructure replacement.

Nor does the Application presently provide insolvency-proof financial security ensuring that full restoration will occur if the project company fails. BEPS' decommissioning evidence identifies this as a major regulatory gap: restoration obligations are meaningful only if the resources to carry them out remain available at the end of the project.

The cumulative position is also more serious than Chapter 20 suggests. Chapter 15 itself acknowledges that permanent BMV loss across cumulative developments may exceed 20 ha, producing a **Moderate Adverse significant cumulative effect**. That sits uneasily with the summary table's separate characterisation of operational agricultural loss and food production as merely Minor Adverse.

The proper conclusion is therefore unavoidable.

It is internally incoherent to admit irreversible loss or downgrading of high-sensitivity BMV land and then characterise the long-term agricultural consequence of removing, disturbing and repeatedly reusing that same land over a 60-year project as minor or insignificant.

East Pye's soil effect is not simply a temporary interruption in cropping. It includes permanent infrastructure loss, potential ALC downgrading, compaction of vulnerable clay soils, disruption to agricultural drainage, disturbance from a 24 km cable network, repeated replacement activity, uncertain restoration and cumulative loss alongside other schemes.

Where the Applicant itself admits irreversible damage and Natural England continues to require further survey, avoidance and soil safeguards, Chapter 20 materially understates the true residual agricultural harm.

20.9 'Temporary' development does not mean reversible development

The Applicant repeatedly relies on the proposition that East Pye is a temporary development because much of the solar infrastructure is intended to be removed after an operational life of up to 60 years. That description is materially misleading if it is used to diminish the significance of long-term environmental change.

Sixty years is not a short environmental interval. It is long enough for the landscape, soils, habitats, hydrology and communities affected by the Scheme to change fundamentally. During that period, substantial areas would cease to function as open agricultural land and instead contain solar arrays, fencing, tracks, substations, BESS infrastructure, drainage works and associated electrical plant. The Applicant's own ecological assessment recognises that the operational phase changes openness, vegetation structure, shading, surface-water distribution, field-boundary use and habitat relationships across the Scheme.

The ecological baseline at decommissioning would therefore not be the baseline assessed today. Grasslands, hedgerows, scrub, woodland belts, ponds and riparian habitats created as mitigation or BNG may by then have matured for decades and become occupied by protected or priority species. The Applicant may consequently be required to disturb or remove habitats of materially greater ecological value at decommissioning than existed at construction. BEPS' Chapter 8 identifies precisely this unresolved whole-life problem.

The same is true of the landscape. The Applicant relies heavily on new hedgerow and woodland planting to reduce its admitted significant visual effects over time. But if that planting matures sufficiently to perform the claimed screening function, it will itself alter the structure of the historic agricultural landscape. Open views, historic field relationships and the relationship between settlements, churches, lanes and farmland may be enclosed or severed. Removing the panels after 60 years would not recreate the landscape that existed before construction.

Norfolk Wildlife Trust puts the point particularly clearly. Its Relevant Representation considers this part of South Norfolk poorly suited to the proposed form of development and says that it would prefer to see the plan 'reshaped to suit the landscape', rather than the present approach which seeks to 'reshape the landscape to the scheme plan'. NWT describes the Scheme as extending across a 'huge swathe of land' in a landscape of ancient woodland, species-rich hedgerows, semi-natural road verges, barbastelle maternity populations, rare farmland birds and threatened flora—a landscape that is 'dense with nature'.

That criticism goes to the heart of reversibility. If the Scheme can only be accommodated by changing the structure and ecological function of the receiving landscape for six decades, the environmental effect is not temporary in any meaningful sense merely because photovoltaic panels are removable.

The soils assessment demonstrates the same problem. Chapter 15 expressly makes reversibility part of its significance methodology and treats temporary reversible effects as lower magnitude, while acknowledging that supposedly temporary development can produce permanent damage where disturbance causes lasting soil degradation. Chapter 20 itself records irreversible loss or downgrading of BMV agricultural land. That is direct evidence that 'temporary development' and 'reversible effect' are not synonymous.

The 60-year period is also not one continuous low-intensity operational phase. The Applicant anticipates complete replacement of the solar panels at least once and replacement of the BESS up to five times. Its Noise Chapter expressly records those replacement assumptions. The transport evidence indicates that complete panel replacement could itself last 12–24 months and involve substantial workforce and HGV movements, while repeated BESS replacement may require heavy lifting, hazardous-material movements, temporary compounds and renewed access across the Scheme.

Those are foreseeable construction-like interventions repeated across a landscape whose soils and habitats will by then have been altered for decades. The environmental consequences cannot be dismissed as routine maintenance.

More fundamentally, the Scheme is not wholly temporary at all.

The Applicant’s own description provides that the National Grid substation and Grid Connection Infrastructure are intended to remain after solar decommissioning. Underground cables may remain; where conductors are removed, ducts and joint bays may still remain. Foundations and other below-ground infrastructure may be cut off at approximately 1.2 metres rather than fully excavated. Permanent accesses and drainage associated with National Grid infrastructure may remain, while established hedgerows, woodland and mitigation planting may also be retained.

The proposed National Grid substation alone may occupy approximately six hectares and include substantial electrical structures, buildings, fencing, access, drainage, lighting and foundations. Up to four new pylons, potentially around 61 metres high, may also remain as part of the transmission system.

The post-decommissioning landscape is therefore not the pre-development landscape. It may consist of solar equipment removed but a new transmission substation, pylons, overhead-line alterations, permanent accesses, retained drainage, underground infrastructure and mature screening vegetation left behind. BEPS’ Chapter 4 correctly identifies that resulting landscape as potentially remaining significantly industrialised.

The agricultural end-state is equally uncertain. Retained foundations, ducts, joint bays, drainage, altered levels and permanent access may prevent complete restoration to agricultural use. The water environment may likewise remain altered where permanent drainage, impermeable areas or underground infrastructure continue to affect runoff, recharge or groundwater pathways.

There is also no adequate basis for assuming that the Applicant itself will exist, own the land or possess the financial capacity to undertake restoration in approximately 60 years’ time. Norfolk Wildlife Trust expressly raises this concern in its Relevant Representation. It asks who will pay for decommissioning, whether the obligation is legally vested in successor entities and what mechanism ensures delivery if Island Green Power no longer owns the Scheme at the end of its operational life.

That is not a peripheral commercial question. It determines whether the asserted reversibility on which parts of the environmental assessment depend is actually secured.

The distinction is therefore fundamental:

Removability of solar panels is not the same thing as reversibility of environmental change.

The Scheme would operate for a period approaching a human lifetime. During that period children born at commencement could reach retirement age before decommissioning. Trees and hedgerows planted as mitigation would mature; ecological communities would reorganise; farmland would undergo decades of changed management; repeated equipment replacement would occur; drainage and groundwater conditions could change; historic openness could be lost; and parts of the grid infrastructure would remain permanently.

The importance of that transformation is heightened by the character of the receiving environment. This is not an interchangeable industrial site. The evidence assembled throughout this Written Representation identifies an historically coherent South Norfolk agricultural landscape containing nationally important bat populations, ancient woodland, species-rich hedgerows, rare farmland birds, sensitive water systems, BMV soils, historic settlements, listed churches and long-established field and lane patterns. NWT's own evidence says that this landscape is 'dense with nature' and that the present Scheme seeks to reshape that landscape to fit the project.

That is the wrong direction of travel.

A nationally important historic and ecologically sensitive landscape should not be permanently reshaped to accommodate a privately promoted energy project whose principal generating equipment is itself justified as temporary, particularly where the Applicant has not demonstrated that this precise location, footprint and scale are necessary.

The correct conclusion is therefore:

A 60-year intervention capable of permanently altering soils, mature vegetation, ecological assemblages, hydrology and historic landscape structure cannot be dismissed as environmentally temporary merely because part of the electrical equipment is eventually removable. Where the mitigation needed to accommodate the Scheme itself permanently changes the place, and substantial grid infrastructure may remain indefinitely, 'temporary' is not an answer to residual harm.

20.10 Some harms are inherently unmitigable

Chapter 20 repeatedly treats mitigation as though it converts environmental harm into an acceptable residual effect. That is not always possible. Some resources cannot be recreated once lost, and some relationships cannot be restored by planting, management plans, recording or compensation.

Historic openness is one example. Historic England describes the Scheme area as an extensive agricultural landscape containing important rural churches, listed buildings and conservation areas focused on medieval settlement. It accepts that the Scheme will alter the settings of designated heritage assets and that residual harm is likely to remain after mitigation. Screening can reduce visibility of infrastructure, but it cannot necessarily restore the historic relationship between church, village, lane and open farmland. Indeed, dense new planting may itself destroy that openness.

Archaeology is still clearer. Historic England confirms that parts of the Order Limits remain unevaluated and that previously unknown remains potentially equivalent in significance to designated assets may yet be found. Archaeological excavation and recording may preserve information, but they do not preserve the archaeological resource itself. Where preservation in situ is possible, avoidance is qualitatively different from mitigation after destruction.

Ecology presents the same problem. Norfolk Wildlife Trust warns that habitat creation cannot automatically replace mature hedgerows and established

commuting routes, and that relatively small breaks may alter barbastelle movement and landscape permeability. It also identifies risks from lighting, disturbance, insufficient buffers and fragmentation. A new hedge planted elsewhere is not functionally equivalent to an established dark corridor linking maternity roosts, woodland and feeding habitat. Nor can new planting recreate ancient woodland setting, veteran-tree relationships or centuries-old soil and mycorrhizal systems.

The same applies to established Countryside Stewardship habitat. Land already managed for farmland birds and biodiversity is part of the existing ecological baseline. Replacing it with a different grassland type beneath solar panels is not restoration of the same function. Open-country habitat for skylark or lapwing cannot necessarily coexist with enclosure, panels, fencing and new woody planting.

Soils are similarly non-substitutable. Chapter 20 itself admits ‘irreversible loss or downgrading’ of BMV agricultural land. Once soil structure, drainage or agricultural grade has been permanently degraded, later landscaping does not recreate the lost agricultural resource.

Water provides the starkest example. If piling, trenching, HDD, contamination mobilisation or BESS-related pollution were to damage a private drinking-water supply or groundwater body, the consequence would not be retrospectively cured by an environmental management plan. The Environment Agency continues to require further work on groundwater, deep foundations, private and public water supplies, contamination, cabling and pollution prevention. Those are receptors where prevention is essential because remediation after harm may be technically difficult, prolonged or impossible.

The same principle applies to tranquillity and the lived rural landscape. Sixty years of industrial-scale change to views, traffic, noise, lighting and agricultural character cannot be compensated by saying that the panels will eventually be removed. A generation experiences the altered landscape once; that lost experience cannot be restored retrospectively.

The conclusion is therefore simple:

Mitigation may reduce an impact. It does not necessarily restore the resource lost.

Chapter 20 repeatedly treats ‘mitigated’ as though it means ‘environmentally restored’. It does not. Where the affected resource is historic openness, archaeological fabric, ancient ecological function, maternity-colony habitat, BMV soil, established stewardship habitat or vulnerable groundwater, the proper response is avoidance. If avoidance has not been exhausted, the residual effect has been understated.

20.11 Transport demonstrates why ‘not significant’ is not the same as acceptable or deliverable

Chapter 20 states that no significant residual transport effects are predicted during construction. That conclusion is directly undermined by the Relevant Representation of National Highways.

National Highways formally objects to the DCO. It requires further detail on the operation of SRN junctions, particularly the A47/A140 junction; more detailed cumulative assessment of construction traffic; further information on the Construction Worker Travel Plan; and stronger drafting of Requirement 15. It expressly states that its objection remains unless those matters are resolved.

That alone demonstrates the weakness of Chapter 20’s summary. The statutory highway authority responsible for the Strategic Road Network does not accept that the construction transport case is resolved.

BEPS Chapter 11 identifies the same problem at local level. Important elements of the routeing strategy remain disputed or undefined, including Hall Lane, Sites 7–10, passing places, vegetation clearance, highway boundaries, AIL routes, local access geometry and the physical works needed to deliver large transformers and other indivisible components.

AILs make the point particularly stark. An ordinary traffic impact may sometimes be reduced by changing timings or reducing daily movements. A transformer cannot be divided. If there is no route that is physically available, legally secured, structurally suitable and environmentally acceptable, that equipment cannot reach the Site.

This is not an EIA significance issue. It is a binary deliverability issue.

The transport case also demonstrates why mitigation cannot be considered in isolation. Rerouting HGVs away from narrow lanes may require new internal haul roads, additional land take, hedgerow removal, drainage works, culverts or watercourse crossings. Solving a highway objection may therefore create ecological, heritage, soil or hydrological effects elsewhere.

Chapter 20’s single line of ‘no significant residual effect’ conceals that unresolved design problem.

An EIA significance label cannot establish that the Scheme can physically be constructed.

Where both National Highways and the local highway evidence continue to identify material unresolved routeing, junction, cumulative and AIL issues, Chapter 20’s transport conclusion should be given little weight.

20.12 Aviation and major-infrastructure risk cannot disappear into ‘Other Environmental Matters’

Chapter 20 similarly states that there are no significant residual effects under the catch-all heading ‘Other Environmental Matters’. That conclusion conceals several unresolved safety and infrastructure interfaces whose consequences could be severe.

Norfolk Gliding Club maintains a specific aviation-safety objection to Site 1. It identifies four distinct risks: glint and glare, thermal updrafts, engine failure after take-off and bird strike. NGC states that the Applicant’s aviation consultant addressed only the first and that its modelling was based on simplified powered-aircraft circuit assumptions that do not reflect actual mixed glider and powered-aircraft operations at Tibenham.

NGC’s concern is not merely amenity. It says each of the four identified mechanisms has the potential to contribute to fatal accidents and argues that emergency-landing requirements and actual operational patterns around Tibenham have not been properly incorporated into the assessment. A conclusion of ‘no significant residual effect’ cannot substitute for resolution of an aviation-safety objection raised by the aerodrome operator.

The same defect applies to nationally significant utility infrastructure. National Gas Transmission confirms that its FM05 Yelverton–Stowmarket high-pressure feeder main and associated cathodic-protection equipment lie within or adjacent to the Order Limits. It requires protective provisions, unrestricted access for maintenance and emergency repair, and compliance with its engineering standards. Its objection remains unresolved pending agreement of those protections.

At Site 5, that pipeline lies close to proposed solar and 400 kV infrastructure. The concern is therefore not an abstract utility clash but the interaction between excavation, cable works, heavy traffic, foundations and an operational high-pressure gas transmission asset.

The Scheme also introduces major new electrical infrastructure: project substations, a National Grid substation, 400 kV equipment and a large BESS. Those works are concentrated in areas also containing private water supplies, aquifers, existing utilities and residential receptors. The Environment Agency continues to require further detail on BESS and substation pollution controls, groundwater, deep foundations and private and public water supplies.

The Applicant therefore has multiple interfaces between new high-voltage infrastructure, high-pressure gas infrastructure, aviation, groundwater, water supply and local communities. The consequences of failure may be low-probability, but that does not make them insignificant.

The proper conclusion is:

A single ‘no significant residual effect’ line cannot extinguish unresolved aviation, gas-transmission, BESS, 400 kV, groundwater and

utility risks whose consequences are potentially severe even where probability is low.

Chapter 20 compresses materially different safety regimes into one reassuring summary. That is not a substitute for demonstrating that each interface is understood, controlled and deliverable.

20.13 Chapter 20 imports uncertainty from outline and post-consent mitigation

Chapter 20 defines residual effects as those remaining after embedded and additional mitigation. That formulation is only meaningful if the mitigation relied upon is sufficiently defined, effective and secured.

In important respects, it is not.

The Applicant expressly defers Foundation Works Risk Assessments for the BESS, substations and other deep or piled structures until after consent, following ground investigation. It likewise proposes post-consent hydrogeological risk assessment for HDD or trenchless crossings where aquifers, watercourses or sensitive ecological receptors may be affected.

The Environment Agency's Relevant Representation shows that the problem is broader. It states that some permitted preliminary works capable of causing environmental harm are not presently covered by the CEMP, creating an 'un-mitigated risk of environmental harm'. It also objects to the phrase 'substantially in accordance with' because it weakens enforceability, seeks to be named as consultee on key requirements, and says further information is necessary before Flood Risk Activity Permit disapplication can be supported.

That is highly significant. The competent environmental regulator is not simply asking for drafting tidiness. It is identifying gaps between the mitigation assumed in the ES and the controls currently secured by the DCO.

The same pattern recurs elsewhere: final access and traffic arrangements remain subject to further agreement; ecological management and protection depend on later detailed plans; lighting controls are not fully fixed; drainage details remain outstanding; archaeological mitigation depends on further evaluation; replacement activity is deferred to future management; decommissioning details remain incomplete; and statutory undertaker protections are still being negotiated.

National Gas, for example, continues to object pending satisfactory protective provisions for the FM05 pipeline. National Highways requires stronger Requirement 15 and further traffic evidence. Historic England identifies further archaeological evaluation and cable-corridor work.

Those unresolved controls are precisely the measures on which many 'not significant' conclusions depend.

A residual effect is not established merely because the Applicant predicts that future mitigation will work. It is established only when the mitigation relied upon

is sufficiently defined to assess, capable of working in combination with other controls, and secured so that the assessed outcome cannot later be exceeded.

Where the significance conclusion depends on future investigation, future route selection, future detailed design or future agreement, Chapter 20 presents a predicted outcome as though it were an established residual effect.

That is premature. The uncertainty belongs in the significance conclusion; it cannot simply be removed from it by assuming successful post-consent mitigation.

20.14 Chapter 20 fails to capture cross-topic receptor harm

The greatest structural weakness is that Chapter 20 summarises effects by technical discipline rather than by receptor. That risks missing the actual environmental experience of the Scheme.

A resident does not experience separate landscape, noise, transport and lighting chapters. The resident experiences the combined consequence of changed views, construction traffic, operational noise, lighting, loss of tranquillity and long-term industrialisation of the surrounding countryside.

A medieval church does not experience heritage effects in isolation. Its setting may be changed simultaneously by panels, substations, new planting, construction traffic, noise, road works and the loss of open agricultural relationships. Historic England’s evidence confirms that setting includes the wider landscape and that residual and cumulative heritage harm remains relevant.

A barbastelle colony experiences the same Scheme through multiple pathways: hedgerow severance, lighting, noise, vehicle movement, woodland-edge change, altered foraging habitat and changes to aquatic prey. Norfolk Wildlife Trust specifically warns that a physically retained hedge may cease to function if it is illuminated, severed or repeatedly disturbed, and questions assumptions that small hedgerow gaps are harmless to landscape permeability.

A chalk stream or tributary likewise receives cumulative pathway effects from sediment, runoff, HDD, cable crossings, altered drainage, groundwater changes and accidental pollution. The Environment Agency’s RR treats those matters as interconnected, identifying outstanding issues across flood risk, water quality, groundwater, contamination, ecology and fisheries.

A private water supply may simultaneously be exposed to piling, trenching, contamination mobilisation, altered recharge, drainage changes and BESS or transformer pollution pathways. The EA’s earlier assessment identified 35 private supplies within 250 m whose precise locations or abstraction strata were not known.

The same interaction occurs in transport. A revised haul route may reduce traffic through one village but require additional hedge removal, culverting, soil

disturbance or works within a conservation area elsewhere. BEPS' Chapter 11 identifies exactly this transfer-of-harm problem.

Chapter 19 of this Written Representation therefore makes the correct methodological point: the receiving environment does not recognise the Applicant's chapter boundaries. Common receptors and systems experience the Scheme as a whole. Historic England and Norfolk Wildlife Trust likewise identify cumulative effects operating across the same historic landscapes and ecological networks.

The danger of Chapter 20's structure is obvious. Each individual effect can be classified as minor or not significant within its own methodology while the receptor experiences a materially greater combined burden.

That is especially serious for East Pye because the Scheme is dispersed across a large, interconnected rural landscape. Its effects accumulate spatially, temporally and functionally.

Chapter 20 cannot be a reliable 'summary' where the actual combined burden on the receptor has never been assessed as a whole.

The decision-maker must therefore look beyond the significance labels in Tables 20.1–20.4 and ask a different question: what will happen to the person, place, species, waterbody or heritage asset when all of East Pye's effects are experienced together? On the evidence of the RRs, that question remains inadequately answered.

20.15 External cumulative effects are materially understated

Chapter 20 materially understates the external cumulative effects of East Pye because it does not assess the Scheme against the actual development pressure already identified by the statutory consultees.

South Norfolk Council stated that the cumulative effects of East Pye with Tasway Energy Park, Norwich to Tilbury and other consented and proposed energy developments had not been adequately explored. Norfolk County Council likewise identified an exceptional concentration of energy infrastructure, including Tasway, The Droves, High Grove, Norwich to Tilbury and Hornsea Project Three-related grid works, and raised concern about the clustered effects on Norfolk's environment and communities.

The LLFA was equally clear. It expressly supported inclusion of proposed but unconsented solar and BESS schemes because of the number of similar developments in the area and the similarity of their programmes. Its concern was not theoretical: concurrent construction may affect the same downstream drainage systems and increase flood risk over a much wider area.

Chapter 20 nevertheless excludes cumulative construction and decommissioning landscape effects because the timing of other schemes is said to be unclear. That is the wrong response to uncertainty.

Uncertainty over whether construction programmes overlap is not evidence of no cumulative effect. It is a scenario requiring assessment.

Tasway illustrates the problem. It is geographically and functionally relevant because it potentially affects the same Great Moulton/Tivetshall energy-infrastructure area, the same rural landscape, the same highway network, overlapping ecological systems, heritage and settlement receptors, and the area around Tibenham Airfield. South Norfolk Council and Norfolk County Council both identified it as requiring cumulative consideration.

Its uncertain future does not justify excluding it. The Applicant itself relies upon uncertain future elements of East Pye, most obviously the BESS, despite its different grid status. BEPS Chapter 19 therefore identifies a clear inconsistency: uncertainty is tolerated when the Applicant wishes to claim East Pye's future benefits, but relied upon to exclude another scheme from the cumulative assessment.

Norwich to Tilbury is equally important. It is not a point development but a major linear electricity-infrastructure project affecting the same wider rural landscape. Its potential effects include additional pylons and grid infrastructure, further visual industrialisation, effects on heritage setting, vegetation and hedgerow loss, ecological fragmentation and construction traffic on parts of the same network. The relevant question is not whether Norwich to Tilbury is a different type of project. It is whether the same receptor experiences both.

The same applies to other solar and BESS projects. Their cumulative effects extend beyond intervisibility. Repeated schemes can remove agricultural land from production, fragment bat and bird habitat, increase demand for substations and transmission infrastructure, add noise and lighting, compete for construction labour and accommodation, and place further pressure on shared rural roads and drainage networks.

Housing and other infrastructure must also form part of the real future baseline where they affect common receptors. A settlement may simultaneously experience East Pye, strategic housing growth, new grid infrastructure and other energy development. The consequence may be progressive enclosure, increased traffic, altered drainage and permanent loss of rural setting even if no single project is decisive in isolation. BEPS' cumulative analysis correctly identifies that significance depends on whether developments affect the same road, watercourse, ecological network, heritage setting or settlement—not whether they appear as separate entries in a project schedule.

Historic England has separately identified cumulative interaction with Tasway as requiring consideration in relation to heritage. The significance lies in progressive change to the same historic rural landscape, not merely simultaneous visibility of two developments. The cumulative erosion of setting may be materially greater than the Applicant's asset-by-asset conclusions suggest.

Transport provides another direct contradiction. National Highways remains dissatisfied with the cumulative construction-traffic assessment and requires greater granularity at the strategic-network level. Its objection identifies unresolved effects at the A47/A140 junction and requires further assessment before its concerns can be removed. Chapter 20 cannot credibly describe

cumulative transport effects as negligible while the strategic highway authority says the cumulative evidence is insufficient.

South Norfolk Council also identified a major cumulative workforce issue. Its consultation response recorded that only 73 of the Applicant's then-estimated 1,006 direct and indirect jobs were expected to be taken by people living in South Norfolk, while around half the construction workforce was expected to come from outside the region. It specifically raised pressure on temporary accommodation when East Pye is considered with offshore-wind infrastructure, Hornsea Project Three, National Highways schemes, Norwich to Tilbury and other solar farms.

The cumulative assessment must therefore deal with competition as well as benefit: competition for skilled labour, accommodation, road capacity, emergency services and environmental capacity.

Water effects make the same point. The LLFA identifies Saxlingham Nethergate, Woodton, Long Stratton and Hempnall as communities with existing or recent flood problems and warns that several Scheme areas lie upstream of those receptors. In that context, cumulative drainage effects cannot be dismissed by assessing each solar or BESS scheme separately.

The cumulative question is ultimately simple. East Pye will not be constructed or operated in an empty landscape. It will exist alongside other solar projects, BESS compounds, electricity-transmission infrastructure, housing growth, road schemes and other NSIPs affecting many of the same receptors.

Chapter 20 does not adequately assess that reality.

The correct cumulative test is not whether each neighbouring project is certain to proceed on precisely the same programme. It is whether reasonably foreseeable development could combine with East Pye to intensify harm to the same landscapes, settlements, roads, heritage assets, ecological networks, labour markets and catchments. On the evidence of South Norfolk Council, Norfolk County Council, the LLFA, Historic England and National Highways, that possibility is real and materially under-assessed.

20.16 The beneficial effects are presented more confidently than the adverse effects

Chapter 20 applies materially different levels of confidence to adverse and beneficial effects.

Adverse effects are repeatedly reduced on the basis that mitigation will work, planting will mature, effects are temporary or reversible, detailed controls will be agreed later, or impacts fall below a chosen significance threshold. Benefits, by contrast, are credited at face value despite depending upon equally uncertain assumptions about habitat establishment, employment, skills, grid operation, carbon displacement and long-term project delivery.

The imbalance is visible in Chapter 20 itself. Construction employment in South Norfolk is classified as Major Beneficial; skills are Moderate Beneficial; numerous ecological receptors are Moderate Beneficial; the operational water effect is Major Beneficial; and the climate effect is Beneficial.

Those conclusions are far more certain than the underlying evidence warrants.

The socio-economic case is the clearest example. Chapter 14 assigns a Major Beneficial construction effect to workplace-based employment in South Norfolk and a Moderate Beneficial significant effect to skills. Yet the same table records resident-based employment effects in South Norfolk, Norfolk and the East of England as **Negligible and Not Significant**. That distinction is critical. Jobs physically associated with a project are not the same thing as jobs actually accruing to local residents.

South Norfolk Council's consultation evidence reinforces the point. Of the Applicant's then-estimated 1,006 direct and indirect jobs, only 73 were expected to be taken by South Norfolk residents, while 501 were expected to be filled from outside the region. The Council therefore raised concern about accommodation and cumulative labour effects rather than treating the headline employment number as an unqualified local benefit.

BEPS Chapter 14 identifies the same methodological weakness. The employment case depends on headline workforce figures and assumptions about displacement, leakage and additionality that are not transparently demonstrated. The claimed skills benefit is not backed by binding local-employment targets, quantified apprenticeship commitments or enforceable local supply-chain expenditure.

The result is revealing: uncertainty about how many local people actually benefit does not prevent a Major or Moderate Beneficial classification, while comparatively modest adverse effects on accommodation or tourism are classified as Minor and Not Significant.

Tourism is treated in the same way. South Norfolk Council identifies a substantial rural visitor economy based on historic towns, Saxon and Norman churches, the Waveney Valley, Boudicca Way, walking and cycling routes, accommodation and heritage attractions, and says East Pye has not adequately assessed direct, indirect or cumulative effects on that offer. Chapter 20 nevertheless reduces tourism effects to Minor Adverse and Not Significant while assigning significant weight to employment and skills benefits.

The ecological case is even more asymmetric. Chapter 20 awards repeated Moderate Beneficial effects to bats, skylark, rivers, woodland, hedgerows, ponds and other receptors because of future habitat creation and enhancement. Yet, as Chapter 8 of this Written Representation demonstrates, the baseline remains incomplete, the Norfolk Barbastelle Study Group seeks further survey, no full botanical survey has been undertaken, and Norfolk Wildlife Trust considers further information and design refinement necessary before ecological acceptability can be established.

The Applicant therefore discounts present ecological harm because future mitigation is expected to succeed, while simultaneously crediting that same future mitigation as a significant benefit.

The water case follows the same pattern. Chapter 20 assigns a Major Beneficial operational effect because agricultural fertiliser and chemical use will reduce. Yet the LLFA continues to identify incomplete drainage information, underestimated impermeable area, unresolved infiltration assumptions and existing flood-sensitive communities downstream of Scheme areas. The benefit is treated as established; the risk remains subject to future work.

Climate benefit is likewise not as secure as Chapter 20 suggests. BEPS Chapter 6 identifies unresolved questions concerning whole-life GHG accounting, energisation, curtailment, BESS delivery, replacement cycles and the actual quantity of useful exported electricity. It also challenges the fragmentation of cumulative climate effects across water, soil, ecological and infrastructure assessments. A generic assumption that the Scheme displaces more carbon-intensive generation cannot substitute for a robust calculation of what East Pye will actually export over its life and under what grid conditions.

The asymmetry is particularly stark where the BESS is concerned. The Applicant relies on the BESS as part of the integrated project case despite its unresolved connection position, yet uncertainty about other projects such as Tasway is used to exclude them from cumulative assessment. BEPS Chapter 19 rightly describes this as selective treatment of uncertainty.

The same evidential standard should apply in both directions.

If uncertainty about mitigation, programme, future behaviour or delivery is sufficient to reduce confidence in an adverse effect, equivalent uncertainty must also reduce confidence in a claimed benefit.

Chapter 20 does not do that.

The Applicant applies confidence asymmetrically: adverse effects are discounted because mitigation may work, while benefits are credited despite depending on future habitat establishment, workforce behaviour, skills delivery, grid utilisation, BESS availability, carbon displacement and long-term management.

That imbalance matters directly to the planning balance. The harms identified throughout this Written Representation are immediate, site-specific and in several cases admitted by the Applicant: significant landscape change, irreversible BMV loss, ecological fragmentation, heritage harm and extensive construction disturbance. Many of the claimed benefits, by contrast, are prospective and conditional.

They should not be given greater evidential certainty merely because they appear in the beneficial column of Chapter 20.

The proper approach is to apply the same test to both sides of the balance: **is the effect demonstrated, deliverable and secured?** Where the answer is no, the claimed benefit should be given correspondingly limited weight. The

same evidential standard should therefore be applied to asserted renewable-energy, storage, ecological, water and socio-economic benefits as is applied to adverse effects: future benefit should not be treated as certain where its delivery remains conditional, unquantified or unsecured.

20.17 Residual harms must be weighed against the benefit of this Scheme, not generic renewable-energy need

BEPS does not dispute the national need for renewable generation. The relevant question is narrower and more important: whether the Applicant has demonstrated a need for this particular 500 MW transmission-connected Scheme, at this particular location, in this particular form and scale, sufficient to justify the environmental harm identified throughout this Written Representation.

It has not.

The Applicant's own alternatives case treats 500 MW as the starting requirement rather than an outcome of environmental optimisation. Chapter 5 records that the land search was directed towards finding sufficient land to accommodate the preferred 500 MW project, and alternatives were then rejected where they could not reproduce that capacity. Smaller schemes, alternative configurations and options that would deliver less than 500 MW were not meaningfully tested against the environmental advantages they might provide.

That sequencing matters. It means that the question the Applicant effectively asked was how to fit 500 MW into the assembled land package, not what scale of development this landscape could sustainably accommodate.

The need case does not cure that defect. BEPS' Chapter 5 records no identified South Norfolk-specific or T7-specific deficit that East Pye is required to fill. The Applicant relies on national renewable-energy need at a high level, but has not demonstrated that refusal of East Pye would create a quantified shortfall in the T7 pathway or prevent regional solar objectives from being met. BEPS' evidence identifies T7 as already heavily subscribed for solar, particularly transmission-connected solar, and records a wider pipeline materially above the relevant regional planning figures.

The central question remains unanswered:

What regional deficit would arise if East Pye were not built?

The Applicant has not identified one. It has not shown that T7 would fail to meet its pathway, that existing Gate 2 and pipeline projects would be insufficient after reasonable attrition, or that an additional 500 MW must therefore be delivered in this part of South Norfolk.

Nor does Gate 2 status establish that necessity. BEPS' evidence distinguishes queue or connection status from locational planning need. The regional solar pipeline is already substantial, and the Applicant has not demonstrated that its

connection position amounts to evidence that this particular project is environmentally necessary in this location.

The BESS does not materially strengthen that case. The Applicant relies on storage benefits when presenting the Scheme as an integrated energy project, but the BESS presently has Gate 1 rather than Gate 2 status. Gate 1 does not establish that this BESS, at this location and connection point, satisfies NESO's locational, capacity or duration requirements for future storage. Nor has the Applicant demonstrated that this particular short-duration BESS is required to meet an identified regional storage requirement. There therefore remains a real possibility of the solar generation proceeding without the full storage benefits relied upon in the Applicant's integrated project case, or of the BESS being delayed, reduced or omitted.

That distinction matters directly to Chapter 20. General national policy support for electricity storage is not evidence of specific system need for this BESS. Claimed climate, flexibility and system benefits should therefore be weighted according to what is actually demonstrated and secured for the proposed storage component, rather than assuming that every potential BESS benefit will necessarily be delivered.

The alternatives evidence is equally important. The Scheme remains dispersed across ten Sites and extensive cable corridors notwithstanding exceptional concentrations of environmental constraints. BEPS' Chapter 5 concludes that the project was defined first and the environmental consequences managed afterwards. The Applicant did not demonstrate that the most harmful Sites could not be deleted, that the Scheme could not be materially reduced, that a more compact development closer to the point of connection was impossible, or that comparable renewable capacity could not be delivered through less constrained schemes or regions.

The Applicant itself says that its design principles seek to achieve its required generation and storage levels while responding to local context. That formulation reveals the underlying hierarchy: the generation target is treated as fixed and the landscape is required to accommodate it.

That is precisely backwards where the environmental consequences are this severe.

National need for solar cannot answer why development remains on BMV land, close to internationally and nationally protected species networks, within sensitive historic settings, across vulnerable water catchments and along roads which remain the subject of highway objection. Nor can generic renewable-energy need demonstrate why 500 MW is the minimum necessary capacity rather than the Applicant's preferred commercial project.

The proper planning balance must therefore compare the actual environmental cost of East Pye with the actual, secured and location-specific public benefit of East Pye.

It must not compare those harms with the national need for renewable energy in the abstract.

The question is not whether 500 MW can be mitigated into this landscape. It is why 500 MW must be imposed on this landscape at all.

On the evidence before the Examination, that case has not been made.

20.18 The proportionality failure

The planning balance fails because the environmental price of East Pye is concrete, extensive and in several respects irreversible, while the asserted need for this location and scale remains unproven.

The Applicant's own Chapter 20 records significant landscape effects across large parts of the Scheme, including effects remaining at Year 15. It records long-term Moderate and Major adverse effects on landscape character and visual receptors, including Site 1, Sites 7 and 8, promoted routes, PRoWs and residential receptors.

The Applicant also expressly admits long-term **'irreversible loss or downgrading'** of BMV agricultural land. BEPS' Chapter 5 records approximately 829.1 hectares of BMV land within the solar sites, approximately 78.7% of that land area.

The historic-environment consequences are similarly substantial. The Scheme would alter an agricultural landscape containing medieval settlement patterns, Grade I and Grade II* churches, listed farmsteads, conservation areas and historic lanes and field relationships. Historic England continues to identify residual heritage harm and incomplete archaeological evaluation. The fact that Chapter 20 ultimately labels those effects 'not significant' does not make the historic landscape unchanged.

The ecology evidence is still more serious. The Applicant's own surveys identify a nationally important bat assemblage and a landscape used by multiple barbastelle maternity colonies. Norfolk Wildlife Trust continues to require substantial redesign and further information, including on bat connectivity, botany, ancient woodland, lowland fen, verges and farmland birds. The Norfolk Barbastelle Study Group considers the maternity-colony network insufficiently surveyed. No full botanical survey has been undertaken. Those are not minor residual uncertainties; they go to whether the baseline and mitigation hierarchy are complete at all.

Water and groundwater risks likewise remain unresolved. The Environment Agency continues to require further work on foundations, groundwater pathways, cabling, private and public water supplies, contamination and pollution control. Chapter 20 nevertheless records no significant construction water effect and a Major Beneficial operational water effect.

Transport and aviation remain unresolved gateway issues. National Highways continues to require further cumulative and junction evidence, while Norfolk Gliding Club maintains a substantive safety objection concerning Tibenham operations. The ExA itself has required Statements of Common Ground with National Highways, the Environment Agency, Historic England, Natural England, Norfolk Wildlife Trust, Norfolk County Council, National Gas and the aviation parties because material issues remain outstanding.

The whole-life effects are also understated. East Pye is proposed for up to 60 years and includes foreseeable panel and BESS replacement, renewed traffic and construction activity, and permanent or potentially permanent grid infrastructure. The environment would therefore experience not one short construction episode but initial construction, decades of operation, periodic replacement and eventual decommissioning.

External cumulative pressure compounds all of this. Tasway, Norwich to Tilbury, other solar and BESS proposals, strategic housing and infrastructure potentially affect the same roads, landscapes, heritage settings, ecological networks, labour market and catchments. Yet Chapter 20 excludes some cumulative effects because programme overlap is uncertain.

Against those harms, the Applicant has not demonstrated why South Norfolk must accommodate this additional 500 MW scheme or why its dispersed ten-Site form must be retained.

That is the proportionality failure.

Norfolk Wildlife Trust expresses the design problem with particular clarity. It considers this landscape poorly suited to the development proposed and says that the plan should be reshaped to suit the landscape, rather than the landscape reshaped to suit the Scheme. BEPS' WR records that NWT continues to seek deletion of Site 3, larger buffers, protection of dark corridors and verges, additional botanical and hydrogeological work and wider design refinement before ecological acceptability can be established.

Chapter 20 demonstrates the reverse approach.

The fundamental 500 MW project remains. The ten-Site geography remains. The extensive cable network remains. The receiving environment is then progressively screened, planted, buffered, managed, routed, drained and engineered around it.

The Scheme retains its fundamental scale and dispersed form, while the receiving environment is progressively screened, planted, buffered, managed, rerouted and re-engineered around it.

That is not evidence that environmental constraints have shaped the project. It is evidence that the landscape is being required to absorb the project.

The distinction is decisive because several of the resulting harms cannot be restored. BMV soils may be irreversibly downgraded. Archaeological remains cannot be replaced after destruction. Ancient woodland relationships and mature bat corridors cannot be recreated on demand. Historic openness cannot be restored simply by removing panels after six decades if mitigation woodland, altered field relationships and permanent grid infrastructure remain. Damage to vulnerable groundwater or private supplies, if it occurs, may be difficult or impossible to reverse.

Nor has the Applicant demonstrated an equivalent locational necessity on the benefits side of the balance. There is national need for renewable generation,

but no demonstrated need that requires these particular harms to be accepted here.

The proportionality balance is therefore not between ‘environmental harm’ and ‘net zero’. It is between the specific environmental harm of East Pye and the specific additional public benefit of East Pye compared with less harmful alternatives and the substantial existing regional pipeline.

On that test, the Scheme has not been justified.

20.19 The proper residual-effects conclusion

Chapter 20 should not be accepted as an accurate statement of the environmental balance.

First, the Applicant’s own summary admits widespread, long-term and sometimes irreversible harm. Significant landscape and visual effects remain after mitigation and beyond Year 15, while BMV agricultural land is expressly subject to irreversible loss or downgrading.

Second, the repeated findings of ‘no significant residual effect’ are not reliable where the underlying evidence remains incomplete, disputed or dependent upon later mitigation. The continuing positions of the Environment Agency, Natural England, Historic England, National Highways, Norfolk Wildlife Trust, Norfolk County Council, National Gas and aviation interests demonstrate that material environmental and deliverability issues remain unresolved. The ExA’s requirement for Statements of Common Ground with those bodies confirms that these matters remain live issues for Examination.

Third, the Applicant’s own surveys frequently establish a receiving environment more sensitive than its residual conclusions acknowledge: nationally important bats, multiple barbastelle maternity-colony networks, ancient woodland, BMV soils, sensitive aquifers and watercourses, historic settlements and churches, and extensive significant landscape effects.

Fourth, Chapter 20 divides that environment into technical topics when the receptors themselves are interconnected. Landscape, heritage, ecology, soils, water, roads and communities form one receiving environment. Harm transferred from one discipline to another is still harm.

Fifth, the Applicant has not demonstrated a locational or scale-specific public benefit sufficient to explain why these particular environmental consequences should be accepted. National policy establishes substantial need for renewable generation in general; the narrower issue is the weight properly attributable to this Scheme. The Applicant has not established that refusal of East Pye would create a regional solar shortfall, that this particular 500 MW transmission-connected capacity is necessary within T7, that the BESS presently satisfies the corresponding Gate 2 strategic-alignment test, or that substantially less harmful alternatives could not provide renewable generation without the same concentration of environmental harm.

The result is that Chapter 20 understates the true residual effects before the planning balance is even undertaken.

East Pye is described as temporary, but the environmental transformation required to accommodate it would not be temporary. The Scheme risks replacing an ‘ancient countryside’ agricultural landscape and functioning ecological network with a newly engineered landscape of panels, substations, fencing, access infrastructure, drainage systems, screening woodland and permanent grid infrastructure. Some of the resources affected cannot be recreated on a meaningful human timescale. Others cannot be recreated at all.

Norfolk Wildlife Trust’s criticism therefore captures the central defect: the project is reshaping the landscape to accommodate the Scheme rather than reshaping the Scheme to respect the ancient, nature-dense landscape. That is particularly difficult to justify where the underlying project is presented as temporary and the Applicant has not demonstrated that its full 500 MW scale must be delivered here.

Chapter 20 therefore understates rather than summarises the true residual effects of the Scheme. Its tables should not be treated as the environmental balance. The evidence across the ES, the statutory and specialist representations and this Written Representation establishes a materially greater pattern of long-term, cumulative, interacting and in some cases irreversible harm. The planning balance cannot compare the Scheme’s specific harms with the entirety of national renewable-energy policy. The harms are those caused by East Pye; the countervailing benefit must therefore be the benefit demonstrated for East Pye. No identified T7 solar deficit requiring this 500 MW Scheme has been established, and the solar element’s Gate 2 position should not be treated as equivalent to a planning finding that this particular development, at this location and scale, is necessary; still less does it establish equivalent strategic need for the Gate 1 BESS.

Where that harm has not first been avoided, and the demonstrated Scheme-specific benefits are insufficient to justify the resulting residual effects, BEPS submits that the proper conclusion is refusal of development consent.

20.20 Compulsory acquisition cannot be justified by optionality

The deficiencies identified in Chapters 1, 4, 5 and 20 have a direct consequence for the Applicant’s compulsory-acquisition case.

Section 122 of the Planning Act 2008 requires the Secretary of State to be satisfied both that the land sought is required for the development, or to facilitate or be incidental to it, and that there is a compelling case in the public interest for compulsory acquisition. The Applicant’s own Statement of Reasons recognises those statutory tests and asserts that the extensive powers sought are necessary and proportionate.

BEPS submits that neither proposition has yet been demonstrated.

The first difficulty is need. The Applicant relies on national renewable-energy policy but has not demonstrated a specific locational necessity for East Pye in this part of South Norfolk. BEPS' need evidence shows that the T7 solar pipeline is already substantial, that Gate 2 status does not itself establish an unmet regional deficit, that the associated BESS presently remains at Gate 1 rather than Gate 2, and that the Applicant's case has relied in part on maintaining project 'optionality' and allowing for future 'attrition' within the wider pipeline.

Those concepts may have a role in national energy-system planning. They are much harder to reconcile with compulsory acquisition of identifiable private land.

Compulsory powers are not a mechanism for reserving land so that a privately promoted project can remain one of several possible future options. Nor should private rights be overridden merely so that additional generation is available if other projects later fall away. Where the Applicant cannot demonstrate that East Pye itself is required in this location, the public-interest justification for coercive acquisition is materially weakened.

The distinction is fundamental:

System optionality is not land necessity, and possible future attrition elsewhere is not proof that this land must be compulsorily acquired now.

The second difficulty is more immediate. It is not yet clear that all of the land and rights sought would actually be required even if East Pye proceeded.

The proposed National Grid connection is the clearest example. The DCO seeks compulsory powers for a specific Site 1B transmission solution comprising a National Grid substation, access, landscaping, drainage, temporary compounds, overhead-line works, cable infrastructure and pylon-related land and rights. Yet NGET's Relevant Representation indicates that the final connection solution remains subject to wider regulatory, technical and commercial considerations; that other Gate 2 outcomes may alter its size, design or location; that a proposed replacement connection agreement is not expected to require the Applicant to provide the land and consent in the manner previously assumed; and that granting the DCO would not itself oblige NGET to use the proposed Site 1B substation.

That creates an obvious section 122 problem. The Applicant seeks compulsory powers over land for infrastructure which the future network owner has not confirmed it will construct or use.

BEPS' Chapter 4 correctly identifies the consequence: if the final NGET solution changes, land may have been compulsorily acquired for a substation, cables, access, landscaping, drainage, pylon works or construction areas which are no longer required.

The possibility that land might prove useful to some future connection solution is not the statutory test. The Applicant must demonstrate that the land or rights sought are required for the development for which the Order is being made.

The same concern applies to transport. The Applicant's final construction-access strategy is not fixed. Important local routes, AIL arrangements, passing places, visibility splays, highway works and the access strategy for Sites 7–10 remain unresolved or subject to further agreement. BEPS Chapter 11 identifies potential reliance on revised internal haul routes and other future route changes in response to highway-authority concerns. Those changes may alter which land is required for access, highway modification, vegetation clearance, drainage, temporary possession and associated rights.

A compulsory-acquisition schedule based on an unresolved transport strategy therefore risks acquiring land first and determining later whether that land is actually needed.

That reverses the statutory logic.

The Applicant must first establish the development and access solution with sufficient certainty; only then can the Secretary of State determine whether each compulsory interest is necessary and proportionate.

The problem is compounded by the Scheme's broad design flexibility. East Pye may potentially proceed with different solar configurations, delayed or reduced BESS, altered connection infrastructure, different construction routing and later design refinement. Yet the Book of Reference and Land Plans seek powers now over the full land package necessary to preserve those options.

That may be commercially convenient. It is not necessarily a compelling case in the public interest.

Compulsory acquisition is an exceptional interference with private property rights. Compensation does not answer the antecedent question of necessity. The Applicant's own Statement of Reasons claims that only land for which lesser powers would be insufficient has been included for permanent acquisition. That assertion must be tested plot by plot against the Scheme that can actually be shown to be deliverable, not against every configuration the Applicant wishes to keep available.

This is especially important where the consequences extend beyond financial loss. The powers affect agricultural holdings, BMV land, farming operations, access, utilities and private rights in a landscape where the public benefit of this particular project remains contested. BEPS' existing Relevant Representation therefore correctly identifies the danger of extensive coercive acquisition for one of a number of potentially interchangeable projects promoted principally on generic national need and optionality rather than demonstrated locational necessity.

The connection uncertainty makes the position still more serious. The Applicant's own WR analysis concludes that land and powers unnecessary to the final confirmed NGET solution should be removed from the Order, that cable works serving the substation should not commence until the connection point is fixed,

and that compulsory acquisition for Site 1B transmission works should not be exercised until NGET has confirmed the solution.

BEPS submits that equivalent discipline is required across the Scheme.

Before any compulsory-acquisition powers are recommended, the Applicant should be required to demonstrate, plot by plot:

- the precise authorised work for which the land or right is required;
- why that work is necessary to the confirmed Scheme rather than merely one possible implementation scenario;
- especially why acquisition of freehold rather than a lesser right or temporary possession is necessary;
- that the final National Grid connection and access strategy actually require that land;
- and what mechanism removes or prevents exercise of the power if the final design no longer requires it.
- Where those matters cannot be demonstrated, the relevant land or rights should be deleted from the Order.

The relationship with Chapter 20 is direct. The Applicant asks the Secretary of State to accept residual environmental harm because the Scheme is said to deliver substantial public benefits. But it simultaneously seeks compulsory powers before some of the infrastructure creating both those harms and those land requirements has been fixed. That is not a minor procedural defect. It goes to proportionality.

The State should not authorise compulsory acquisition of private land for optional infrastructure serving a project whose locational necessity is itself unproven, whose final National Grid connection is not confirmed, and whose construction access strategy remains materially unresolved.

Where East Pye is being retained as additional system ‘optionality’ against possible future ‘attrition’, the appropriate risk bearer is the promoter, not the affected landowner. Private property should not be compulsorily acquired merely to preserve commercial or system options that may never be exercised.

Unless the Applicant can demonstrate both that East Pye is sufficiently necessary in this location to establish a compelling public-interest case and that every interest sought is genuinely required for a confirmed and deliverable version of the Scheme, the compulsory-acquisition powers should be refused or materially reduced.

20.21 Remedies sought

The principal remedy sought is refusal. Chapter 20 cannot safely be treated as the final environmental balance because many of the conclusions it presents as settled remain dependent on incomplete baselines, disputed significance

judgments, outline mitigation, future investigation and unresolved statutory-consultee concerns.

That is not a rhetorical criticism. Norfolk Wildlife Trust states expressly that, notwithstanding the Applicant's conclusion of no significant adverse residual ecological effects, further information and design refinement are required before the Project can be regarded as ecologically and environmentally acceptable. It identifies unresolved issues concerning nationally important bats, habitat connectivity, roadside verges, ancient woodland, lowland fen, lighting and HDD locations, and warns that habitat creation cannot automatically replace established commuting routes and mature landscape features. The Environment Agency likewise continues to identify unresolved matters concerning fish, European eel, aquatic invertebrates, riparian habitats, groundwater, contamination, construction methods and the enforceability of mitigation, including measures relied upon to support claimed ecological and water benefits. National Highways maintains that the strategic junction, cumulative traffic, worker-travel and AIL cases are not yet adequately demonstrated. These positions are incompatible with treating Chapter 20's repeated 'no significant residual effect' conclusions as an established evidential endpoint.

The Examining Authority should therefore require a single revised residual-effects assessment before any recommendation in favour of consent is made. It should not be another table reproducing the conclusions of Chapters 6–18. It should be an audit of whether those conclusions remain defensible when the evidence before the Examination is considered as a whole.

That revised assessment should, at minimum:

- identify every residual-effect conclusion that depends upon outline, future or post-consent mitigation, investigation or design, and identify precisely what measure is relied upon, where it is secured in the DCO, when it will be delivered, the performance standard required, who is responsible for it, how effectiveness will be monitored and what happens if it fails;
- reconcile every 'no significant residual effect' conclusion in Chapter 20 with outstanding objections, qualifications or requests for further information from the Environment Agency, Natural England, Historic England, Norfolk Wildlife Trust, Norfolk County Council, National Highways, National Gas and relevant aviation interests, rather than assuming that an ES significance judgment disposes of a continuing regulatory or deliverability objection;
- reassess ecology against the Applicant's own finding of a nationally important bat assemblage and the evidence that the Scheme occupies a connected landscape of hedgerows, woodland, watercourses, dark corridors and multiple barbastelle maternity-colony territories, rather than treating habitat parcels independently; it must also address the absence of a full botanical baseline and the continuing specialist evidence that further barbastelle survey is required before functional use of the landscape is adequately understood;
- distinguish BNG or habitat-unit uplift from ecological functionality and identify expressly where new grassland, planting or habitat creation cannot be shown to provide temporal, spatial and functional equivalence for ancient woodland relationships, mature hedgerows, dark bat corridors, stewardship bird habitat, rare botanical assemblages or established aquatic networks;

- reassess the water-environment conclusions against the Environment Agency’s outstanding concerns regarding groundwater, private and public abstractions, piling and foundation pathways, underground cables, pollution prevention, BESS and substation runoff, fisheries, aquatic invertebrates and riparian mitigation. The Agency’s evidence shows that some claimed improvements are not yet consistently secured in the management documents relied upon to deliver them.
- identify expressly every effect which is irreversible, non-restorable or incapable of equivalent compensation, including irreversible BMV loss or downgrading, archaeological destruction, degradation of established ecological function, loss of historic openness, permanent or retained grid infrastructure and any groundwater or private-supply impact for which restoration cannot be assumed;
- reassess the Scheme over its full life rather than treating construction, operation and decommissioning as isolated phases. That assessment must include solar-panel replacement, repeated BESS replacement, renewed heavy traffic and compounds, cumulative disturbance to soils and habitats, the ecological status of mitigation habitat at decommissioning, retained infrastructure and the actual secured post-decommissioning end-state;
- assess combined effects at receptor level. Residents, heritage assets, bat colonies, watercourses, private water supplies and PRoW users experience one Scheme, not separate ES chapters. The revised assessment must therefore identify where individually ‘minor’ or ‘not significant’ effects combine through noise, lighting, traffic, visual change, hydrology, fragmentation, pollution and loss of tranquillity to produce a materially greater overall effect;
- undertake a robust cumulative reassessment with Tasway, Norwich to Tilbury, other relevant solar and BESS proposals, housing and infrastructure development wherever they share landscapes, roads, ecological networks, catchments, heritage receptors, workforce or accommodation markets. The LLFA itself supported the inclusion of proposed but unconsented schemes because of the number of similar solar and BESS projects and the potential for overlapping programmes and downstream flood effects. Uncertain timing should therefore be tested through reasonable scenarios, not used as a reason to exclude cumulative effects;
- and, critically, distinguish genuinely unavoidable residual effects from harms that remain only because the Applicant has retained its preferred scale, Sites, routes or infrastructure. For each material adverse effect, the Applicant should identify what avoidance option was considered, whether deletion, relocation, rerouting or reduction was technically possible, why it was rejected, and why mitigation was preferred over avoidance.

That final requirement is essential. Chapter 20 should not be allowed to label harm ‘residual’ until the Applicant has demonstrated that it really is residual. Where a Site can be deleted, an access route moved, BMV land avoided, development pulled away from ancient woodland or maternity-colony habitat, infrastructure relocated, or the Scheme reduced in scale, the remaining harm is not yet unavoidable.

The same principle must apply to uncertainty. Where the evidence necessary to establish significance is still outstanding, the answer cannot be to assume that future work will validate the Applicant’s existing conclusion. The Environment

Agency’s evidence illustrates the danger directly: important ecological and water conclusions depend on controls that remain incomplete or inconsistently secured. NWT likewise says the Project still requires further information and design refinement before ecological acceptability can be established. The proper consequence of unresolved evidence is therefore reduced confidence in the conclusion, not increased reliance on the Applicant’s prediction.

The Examining Authority should also require the revised residual-effects assessment to identify the planning consequence of each unresolved issue. Some matters may be capable of being cured through an enforceable requirement. Others require pre-consent survey or redesign. Others may require deletion of land or works from the Order. Where mitigation depends upon a future investigation that could reveal that the authorised development is environmentally unacceptable, the matter is not suitable for ordinary post-consent discharge.

This distinction is particularly important because the Scheme is already heavily dependent on future controls. BEPS’ WR records continuing reliance on post-consent Foundation Works Risk Assessments, hydrogeological assessment, detailed ecological management, final access and traffic controls, replacement management, decommissioning arrangements and protective provisions. A residual-effects assessment that simply assumes all of those future processes will produce an acceptable solution is circular.

The Applicant should therefore be required to demonstrate one coherent and deliverable final case in which the landscape, ecological, heritage, water, soil, transport, noise, utility, aviation and decommissioning assumptions can all be satisfied simultaneously. It is not sufficient that each chapter contains a theoretically acceptable mitigation solution if those solutions have not been reconciled with one another.

If that cannot be done, Chapter 20 cannot support consent.

The position is particularly compelling because the Applicant’s own summary already admits substantial residual harm, including extensive significant landscape effects and irreversible BMV loss, while the specialist and statutory representations demonstrate that significant uncertainty remains in areas which Chapter 20 labels non-significant. The proper planning balance cannot therefore proceed on the assumption that the residual harm is confined to the matters acknowledged in Tables 20.1–20.4.

Nor should the Examination permit the Applicant to cure that problem simply by adding further layers of mitigation. NWT’s criticism goes to the underlying design issue: the present Scheme seeks to reshape the landscape to accommodate the project rather than reshape the project to respect the landscape. Where the mitigation hierarchy has not been exhausted, the correct remedy is further avoidance and redesign, not increasingly elaborate management of a fundamentally overextended Scheme.

Accordingly, if the Applicant cannot demonstrate through a revised, evidence-based and internally reconciled assessment that the remaining adverse effects are genuinely unavoidable, that the mitigation relied upon is defined and secured, that the combined and cumulative effects are acceptable, and that

those harms are proportionate to a demonstrated need for East Pye at this location and scale, the residual-effects case fails.

If that exercise cannot demonstrate that the remaining harms are genuinely unavoidable, adequately mitigated and proportionate to a demonstrated need for East Pye at this location and scale, the correct application of the mitigation hierarchy and planning balance is not further mitigation. It is refusal of development consent.

Conclusion

BEPS's Written Representation has considered East Pye Solar across the whole of the Application: its claimed need, site selection, design, environmental assessment, construction, operation, replacement, decommissioning, cumulative effects, draft DCO and compulsory-acquisition powers. The conclusion which emerges from that evidence is clear.

East Pye Solar is not a finished project awaiting detailed implementation. It remains an incompletely defined and incompletely assessed development whose essential engineering, environmental and delivery solutions are still being determined. At the same time, the evidence already establishes substantial and, in important respects, significant harm to the landscape, ecology, historic environment, agricultural land, tranquillity and communities of South Norfolk. Those two findings must be considered together.

The Applicant asks the Secretary of State to accept environmental harm on the basis of benefits and mitigation which depend upon a Scheme that is not yet sufficiently settled, while simultaneously asking for a DCO and extensive compulsory powers broad enough to accommodate whatever solution ultimately emerges.That is the wrong statutory sequence.

Development consent should follow demonstration that an environmentally acceptable and deliverable project exists. It should not be granted first so that the Applicant can discover afterwards whether one can be achieved.

The Application is unfinished in matters that determine whether the Scheme is acceptable at all

The unresolved matters are not confined to contractor detail. The final National Grid connection solution remains unsettled. NGET has not confirmed that the proposed Site 1B substation is the final solution; the replacement connection agreement is not expected to require East Pye Solar to secure the substation land or consent; and development consent for the proposed substation would not oblige NGET to use it. Yet the Application seeks consent and compulsory powers for substantial permanent transmission infrastructure, including a substation of approximately six hectares and potentially four new pylons reaching approximately 61 metres.

The solar and BESS elements do not have equivalent connection status. Solar has Gate 2 Phase 2 prioritisation; the BESS remains at Gate 1. The DCO nevertheless permits an integrated Scheme whose BESS could be delayed, reduced, altered or potentially omitted. The environmental assessment, benefits case, land requirement and statutory powers have not been reconciled comprehensively with those materially different implementation scenarios.

Nor has the construction project itself been defined through one binding reasonable worst-case envelope. The Application does not yet provide a consolidated maximum for simultaneous work fronts, piling, deep foundations, concrete, cable excavation, HDD operations, dewatering, compounds, hardstanding, haul roads, vegetation removal, abnormal loads, replacement

works and other activities which determine the environmental effects actually experienced.

Transport provides the clearest physical manifestation of the problem. East Pye depends upon 65 construction accesses and crossings across an exceptionally constrained rural road network. Norfolk County Council states that the submitted strategy for Sites 7–10 does not adequately address the highway constraints, does not provide sufficient mitigation and ‘cannot be supported’. It requires a materially different architecture based upon greater use of Cable Route Corridors and internal haul roads. National Highways separately maintains an objection requiring further work on strategic junctions, cumulative traffic, traffic limits, worker travel, abnormal loads and DCO controls.

The Applicant therefore has neither an agreed submitted routeing strategy nor a demonstrated alternative. A CTMP cannot create a missing road, secure land outside the Order Limits, establish the structural capacity of an untested route, or retrospectively assess ecological, heritage, drainage and PRoW effects created by a different haul-road system.The same pattern occurs repeatedly elsewhere.

The water assessment lacks a sufficiently robust site-wide hydrogeological conceptual model. The private-water-supply baseline remains unreliable. HFCL identifies 15 principal deficiencies and concludes that there is a ‘significant lack of confidence’ that effects upon the water environment are properly understood or capable of mitigation. WFD screening is contested; groundwater-dependent terrestrial ecosystems remain incompletely assessed; piling, HDD, dewatering and firewater pathways remain unresolved; and the water source for a project in a seriously water-stressed region is not securely established.

The ground-conditions case remains substantially desk-based despite development involving thousands of piles, deep substation and BESS foundations, cable trenches, HDD, former military land, Principal Aquifers, possible PFAS and other contamination, UXO and private groundwater supplies. Later Foundation Works Risk Assessments and intrusive investigations may determine whether particular foundation systems or locations are acceptable at all. That is not detailed design. It is evidence required to establish whether the authorised development can safely be constructed.

The ecological baseline is likewise unfinished. No full seasonal botanical survey has been undertaken despite specialist evidence concerning important assemblages in precisely the roadside verges, historic lanes, hedgebanks and margins most exposed to engineering works. Aquatic survey work was affected by unusually dry conditions. Evidence of a breeding white-clawed crayfish population in the River Tas system was not adequately reflected in the original baseline. Further work remains necessary to understand the functional use of the landscape by barbastelle maternity colonies.

That last issue is particularly serious because the Applicant’s own evidence establishes the ecological importance of the area. Its bat assessment scores the assemblage at 22 out of 28, above its threshold for national importance. Eleven species were recorded; barbastelle was recorded at every static detector and generated 11,699 passes. Multiple maternity-colony Core Sustenance Zones overlap the Scheme, and independent licensed radiotracking has confirmed a further substantial maternity colony at Little Wood.

The Applicant is therefore not seeking consent in circumstances where ecological sensitivity is speculative. National importance is established. What remains incomplete is the evidence necessary to determine whether the Scheme can be constructed through that landscape without damaging the ecological function which gives it that importance.

EMF provides another example. PINS refused to allow the issue simply to be scoped out and required assessment of human and ecological receptors. Yet there is still no Scheme-specific maximum-case EMF model for the actual 132 kV and 400 kV system, no receptor-specific contours for the combined infrastructure and no completed crossing-specific aquatic assessment at Hempnall Beck of the kind sought by the Environment Agency and Inspectorate.

Air quality follows the same pattern at a different scale. Most measured evidence comes from Long Stratton rather than the low-traffic rural environment in which much of East Pye would be constructed. Cumulative HDV increases of 806 AADT are predicted on identified A140 links—more than eight times the Applicant's own 100-HDV screening threshold—yet no quantitative dispersion modelling follows. The National Grid substation now also permits a diesel generator of up to 500 kVA even though operational combustion emissions were originally scoped out on the stated basis that no combustion plant was proposed.

These are not isolated omissions. They reveal the recurring architecture of the Application: uncertainty is acknowledged, significance is nevertheless concluded, and the evidence needed to test that conclusion is deferred.

Mitigation is repeatedly being asked to do the work that avoidance and design should already have done

The same problem appears in the mitigation case. East Pye has not been designed by first identifying the environmental capacity of the receiving landscape and locating development within it. The evidence shows a 500 MW-scale project and land package progressively fitted around the constraints.

The land search began around Norwich Main before that connection point was shown to be viable. When Norwich Main proved incapable of accommodating the proposed project, the land search was not restarted. Instead, the connection search moved until a solution could be found which preserved the assembled land package. Great Moulton was selected partly because the existing Sites remained within reach. That history explains much of what follows.

Ancient woodland requires buffers. Barbastelle habitat requires dark corridors and retained connectivity. Roads require passing places, call-forward systems, marshals and internal haul routes. Sensitive views require woodland screening. Noise requires four-metre barriers, quieter equipment, fan restrictions, orientation, attenuators and enclosures. Groundwater requires future foundation-risk assessments. BESS risk requires later detailed firewater and safety design. Heritage harm is screened rather than avoided.

Each measure may reduce an individual effect. Collectively they demonstrate that the chosen landscape is struggling to accommodate the development. That is the opposite of the mitigation hierarchy.

Avoidance should occur through site selection, scale and design before reliance upon mitigation, restoration and compensation. Yet many of East Pye's most important receptors cannot reliably be restored or compensated for: ancient woodland setting and connectivity; mature hedgerow networks; established maternity-colony support habitat; rare botanical assemblages; functioning chalk-stream systems; historic landscape relationships; and the structure of heavy BMV agricultural soils developed over generations.

BNG does not answer those objections. Habitat units cannot establish compliance with European Protected Species legislation, restore an ancient woodland relationship, demonstrate that a barbastelle metapopulation remains functional or remove the risk of deterioration of a waterbody.

Screening does not answer the landscape and heritage objection either. The Applicant's own LVIA records Major Significant effects at Sites 1, 7 and 8 and significant effects remaining at Year 15 across important landscapes and visual receptors. Planting which hides industrial infrastructure by replacing open agricultural character with woodland is itself landscape change. Concealment is not preservation.

Some of the principal harms are already established

The decision-maker is therefore not balancing uncertain harm against certain benefit. A substantial part of the adverse case is already established. The Applicant itself identifies extensive Significant landscape and visual effects, including Major effects and effects persisting to Year 15.

Independent heritage evidence identifies less-than-substantial harm to 36 designated assets—32 listed buildings and four Conservation Areas—compared with the Applicant's identification of harm to only two designated assets. The disagreement includes Grade I and Grade II* buildings and goes directly to the Applicant's treatment of open agricultural setting, historic approaches, functional relationships and landscape character.

Approximately 829.1 hectares of the surveyed land is BMV agricultural land, comprising approximately 397.4 hectares of Grade 2 and 431.7 hectares of Grade 3a. The soils are predominantly slowly permeable, seasonally wet clay and clay loam. Relevant technical evidence shows that heavy soils have low resilience to structural damage and that sufficiently deep compaction can be difficult or economically impracticable to reverse. The proposition that agricultural quality will simply return after 60 years therefore remains an assumption rather than a demonstrated outcome.

Noise modelling identifies 15 receptors above SOAEL during night-time HDD, with effects extending to Major Adverse. In the exceptionally quiet rural acoustic environment, operational acceptability is itself dependent upon extensive engineered mitigation.

Transport remains formally disputed by both the local and strategic highway authorities.

The ecological assemblage is nationally important.

Water and groundwater uncertainty has been independently identified as sufficiently serious to produce a ‘significant lack of confidence’ in the assessment.

Site 1 concentrates BESS, project and National Grid substations, 400 kV infrastructure, aviation constraints associated with Tibenham Airfield, private water supplies, the Principal Aquifer, the Waveney catchment, the London–Norwich railway, BMV land and nearby homes. Site 5 similarly combines 400 kV infrastructure, a national high-pressure gas transmission main, drainage pathways into the River Tas system, white-clawed crayfish, private water supplies, homes, a nursery and nationally important bat habitat.

Those are not impacts invented by applying an unduly precautionary approach. They are the consequences of putting very large energy infrastructure into an unusually receptor-dense rural landscape.

The whole-life case makes the description of the Scheme as ‘temporary’ increasingly untenable

The planning balance must also address what East Pye actually means over 60 years. The Scheme permits major panel replacement, repeated BESS replacement, transformer and electrical replacement and recurring construction-type interventions. The land is therefore not simply disturbed once and then left undisturbed until removal. Nor does decommissioning restore the entire development.

The National Grid substation and Grid Connection Infrastructure are intended or capable of remaining permanently. Underground ducts, joint bays, foundations, access, drainage and other infrastructure may remain. Mature screening and ecological planting may permanently alter the character and future use of the land.

The Applicant has now clarified that private land agreements contain decommissioning securities capable of revaluation or top-up and intended to provide protection against default or insolvency. That is relevant, but it does not demonstrate a single publicly enforceable, Scheme-wide mechanism capable of decommissioning and restoring a multi-landowner NSIP if the undertaker fails.

It remains unclear who would coordinate whole-Scheme restoration in that event; whether every holding is protected to the same standard; whether security covers soil, drainage and contamination remediation as well as equipment removal; whether the enforcing authority can access it; and what happens if actual restoration costs substantially exceed the amount secured.

Reported development-uplift or overage provisions in land agreements require clarification for the same reason. Such provisions cannot determine future planning use. But if the contractual structure contemplates future development of land whose reversibility and restoration to agriculture are relied upon in the present planning balance, the Applicant should explain the relationship clearly.

‘Temporary’ should therefore be given limited weight where industrial use lasts for six decades, replacement creates repeated construction phases, major

transmission infrastructure survives indefinitely and restoration of the affected heavy agricultural soils has not been demonstrated.

The Applicant’s benefits case cannot carry the weight placed upon it

BEPS recognises the urgent national need for renewable electricity established by EN-1. But national need for a class of infrastructure does not make the environmental consequences of an individual project irrelevant, nor does it establish that every proposed 500 MW transmission-connected solar project is necessary in every location.

The evidence concerning East Pye Solar materially limits the weight which can properly be placed upon claims of project-specific or locational necessity.

The T7 evidence shows a substantial solar pipeline. Ofgem’s April 2025 material recorded 660 MW built, 122 MW under construction, 380 MW consented and 3,418 MW at planning-submitted stage against the revised combined 3,300 MW T7 solar allowance. In its medium Gate 2 scenario the entire regional allowance was capable of being filled by projects which were already built, under construction, consented or planning-submitted, without requiring projects merely holding land rights.

The significance of East Pye’s subsequent Gate 2 status must also be understood in its proper context. The original Clean Power 2030 analysis anticipated approximately 90% of solar on distribution networks. Separate transmission and distribution regional allocations were subsequently amalgamated after DESNZ, through developer lobbying (including by IGP/MAcquarie), identified a mismatch between the increasing transmission solar pipeline and the original modelling. That process altered the treatment of the pipeline, allowing more transmission solar to progress than NESO’s CP2030 had intended; it did not itself increase the national solar requirement.

BEPS does not invite a finding of impropriety from the documented industry engagement preceding that change. However, East Pye Solar’s Gate 2 status is not independent proof that this particular Scheme is indispensable or that its environmental harms are unavoidable.

The Applicant’s claimed climate benefit also requires materially less confidence than the planning case assumes. BEPS’s Chapter 6 identifies internal arithmetic and unit inconsistencies in the whole-life calculation, including a headline lifetime carbon saving that cannot be reproduced from the Applicant’s stated generation, comparator and whole-life emissions figures. The assessment also freezes the 2031 grid-carbon comparator over a 60-year operational life despite acknowledging future grid decarbonisation. BESS replacement, land-use change, curtailment, water supply and other whole-life assumptions remain material.

Climate benefit remains an important benefit of renewable generation. But the magnitude of the specific benefit claimed for East Pye cannot properly be given decisive weight where the calculation itself is not yet reproducible from the stated inputs.

The socio-economic benefits are similarly less certain than the headline presentation suggests. Construction employment is temporary; local employment and procurement outcomes are not secured at the levels claimed; and the Applicant has not established a comparable baseline for the existing rural businesses, tourism and visitor economy which may bear the adverse effects.

The planning balance must therefore compare the actual demonstrated benefits of East Pye Solar with the actual harms of East Pye Solar. It must not place the whole weight of national decarbonisation policy on one project and then treat every local environmental consequence as necessarily subordinate.

Chapter 19 and Chapter 20 expose the central failure of the Application

When the chapters are read together, the Applicant's residual-effects case becomes increasingly difficult to sustain. Chapter 19 does not independently test the Scheme as a functioning environmental system. It largely imports significance conclusions reached within the individual topic chapters, screens out effects already classified as negligible and acknowledges that 'the scale of the effect interaction has not been identified'.

That is particularly problematic for a project whose harm is generated through repetition and interaction. The same hedgerow may be landscape structure, historic boundary, bat corridor and highway constraint. The same heavy clay soil controls agricultural productivity, drainage and groundwater recharge. The same haul road may affect residents, archaeology, ecology, soil, water, PRoWs and heritage. The same landscape planting may screen infrastructure while itself harming openness, heritage setting or ground-nesting-bird habitat.

The environment does not experience those effects chapter by chapter. Nor does a resident living beside East Pye SOlar experience 'noise', 'traffic', 'landscape' and 'air quality' as separate planning disciplines. They experience one development.

Chapter 20 then produces the most revealing inconsistency of all. The Applicant accepts extensive Significant landscape effects, including Major Adverse effects and continuing Year 15 effects, yet reports essentially no significant residual cultural-heritage effect; no significant water effect despite unresolved private-water-supply, hydrogeological, WFD and firewater issues; no significant transport residual effect despite the outstanding highway-authority positions; and substantial ecological benefit notwithstanding a nationally important bat assemblage, incomplete botanical and aquatic baselines and unresolved functional effects.

That is not a coherent environmental balance. It is the consequence of fragmentation, optimistic mitigation assumptions and significance judgments made before the underlying uncertainty has been resolved.

The Application is premature because the missing information could change the Scheme

There is an important distinction between information which refines an already acceptable project and information which determines whether an acceptable project exists. Much of what remains outstanding at East Pye falls into the second category.

- Further ecological evidence could require removal or relocation of development to protect maternity-colony habitat or rare botanical resources.
- Ground investigation could require different foundations or avoidance of contaminated or hydrogeologically sensitive areas.
- Private-water-supply investigation could establish receptors or pathways requiring relocation or additional separation.
- HDD and foundation risk assessment could determine that particular construction methods are inappropriate.
- The final highway solution could require different haul roads, accesses, crossings, vegetation removal and land.
- The final National Grid solution could alter the need for permanent transmission land and infrastructure.
- Aviation assessment could require changes to infrastructure or panel layouts around Tibenham Airfield.
- Noise performance could depend upon equipment which has not yet been selected.
- The final BESS design could alter noise, fire, drainage, cooling, replacement and emergency-response requirements.

Those matters cannot safely be described as ordinary detailed design where the answer may be that an authorised Work must move, shrink, change technology or not be constructed.

The Rochdale Envelope does not permit uncertainty over the environmental acceptability or identity of the development itself. Its purpose is to permit bounded flexibility within a reasonable worst case which has already been assessed. East Pye has not yet demonstrated that bounded whole-project worst case.

The compulsory-acquisition case consequently fails for the same reason

The Applicant nevertheless seeks extensive statutory powers now. That is especially difficult to justify where land is sought for optional, severable or unresolved infrastructure.

The Applicant’s own land arrangements contemplate leasehold occupation for substantial parts of the solar development, yet the DCO seeks powers capable of acquiring freehold interests. NGET does not presently expect the replacement connection agreement to require East Pye to secure the proposed National Grid substation land. The BESS does not have the same connection status as solar.

Alternative transport arrangements may change the land required. Some authorised Works may never be constructed.

Section 122 requires a compelling case in the public interest for compulsory acquisition. That case cannot logically be established by granting the widest powers first and deciding later which land and interests the final Scheme actually needs.

The public-interest balance is particularly weak where the specific benefits remain contingent but the interference with property, landscape, ecology and agricultural land is immediate and substantial.

The planning balance weighs decisively against East Pye

The correct planning balance is therefore:

the contribution of this particular project, in a region already containing an extensive advanced solar pipeline, against the extensive and interacting consequences of placing a dispersed 500 MW-scale transmission project in this particular receptor-dense landscape.

On the adverse side of that balance stand admitted Significant landscape effects; independent evidence of harm to 36 designated heritage assets; a nationally important bat assemblage and multiple barbastelle maternity-colony networks; six adjoining ancient woodlands; unresolved white-clawed crayfish and botanical evidence; approximately 829 hectares of surveyed BMV land; heavy soils whose reversibility is not established; unresolved private-water-supply, groundwater, WFD and drainage issues; formal outstanding transport objections; night-time SOAEL exceedances during HDD; unresolved aviation and major-infrastructure interactions; permanent grid infrastructure; uncertain decommissioning and restoration; and cumulative industrialisation extending well beyond any single field or village.

Those harms are not all capable of mitigation. Some are inherent consequences of scale and location.

On the benefit side, renewable generation is strongly supported by national policy and must receive substantial weight. The relevant question, however, is the weight properly attributable to the benefits of this Scheme at this location and scale. Gate 2 status for the solar component does not establish regional or locational necessity; the BESS presently remains at Gate 1 rather than Gate 2; the final transmission solution is unresolved; the claimed whole-life carbon benefit is not yet mathematically secure; and many of the claimed socio-economic benefits are temporary or unsecured.

The balance is therefore not close.

The strongest benefits derive principally from the general policy need for renewable infrastructure rather than from any demonstrated necessity for these particular 1,200 hectares of South Norfolk to be developed in this way.

While the significant and enduring environmental harms arise from the Scheme itself. The uncertainties affect whether the Scheme can be delivered and mitigated as claimed.

National policy does not require the Secretary of State to consent the wrong renewable-energy project in the wrong place merely because renewable energy is needed.

Indeed, refusing a poorly located and designed project is part of a functioning planning system. It preserves the ability to meet the same national objectives through developments whose environmental cost is materially lower.

Final conclusion

After three volumes and twenty substantive chapters, the central defect in East Pye Solar can be stated simply.

Too much is already known about the harm, and too little is yet known about the solution.

The Applicant already knows that the Scheme would cause extensive Significant landscape effects; occupy predominantly BMV agricultural land; industrialise historic rural settings; affect a nationally important ecological landscape; require construction through a highway network which the responsible authorities do not presently accept; and introduce major permanent electrical infrastructure into locations containing sensitive human, ecological, hydrological and infrastructure receptors.

What it does not yet know with equivalent certainty is the final National Grid solution; the ultimate BESS implementation case; the complete construction envelope; an accepted access strategy; the full ecological baseline; the complete private-water-supply network; the site-wide hydrogeological model; the acceptability of foundations and HDD at all sensitive locations; the final BESS and firewater design; the Scheme-specific EMF exposure; the final operational noise sources; or a coordinated and financially secure mechanism capable of restoring the land at the end of the project.

Those are not matters which should remain unresolved after the principle of development has been granted. They are matters which determine whether the principle of this development, in this place, is acceptable. The Application is therefore premature.

It asks the Secretary of State to accept established environmental harm now in return for an environmentally acceptable implementation which the Applicant hopes to demonstrate later. That is not a sufficient basis for a Development Consent Order, still less for the extensive compulsory powers sought.

Nor should the balance be distorted by treating the national need for solar generation as though it establishes a need for East Pye Solar regardless of its consequences. The national policy need is important, but it does not **eliminate** the statutory and policy requirement to consider environmental effects,

alternatives, good design, deliverability, heritage, biodiversity, water, agricultural land and the overall public interest.

This Written Representation demonstrates that East Pye is not simply a renewable-energy project with manageable residual effects. It is a development whose extraordinary scale and dispersed form create repeated conflicts with the environmental capacity of the landscape selected for it, and whose proposed solution to those conflicts is repeatedly to defer design, survey, assessment and mitigation until later.

The proper application of the mitigation hierarchy would have led to a different location, a different land package, a materially smaller development or no development here at all.

The proper application of the planning balance leads to the same result.

The harms are extensive, cumulative, long-term and in important respects irreversible. Several are already Significant on the Applicant’s own evidence. Others remain uncertain precisely because the baseline or design is unfinished. The specific and locational benefits relied upon to outweigh them are materially less certain and less substantial than the Application suggests.

There is therefore no sound evidential basis for concluding that the adverse impacts of East Pye Solar are outweighed by its benefits. There is no justification for granting broad statutory powers in the expectation that the missing project will be designed after consent. There is no compelling public-interest case for compulsory acquisition of land and rights whose necessity remains contingent upon unresolved Works and connection solutions. And there is no planning justification for industrialising this exceptionally sensitive part of South Norfolk’s ancient countryside where the demonstrated Scheme-specific benefits have not been shown to outweigh or justify the extensive, interacting and in important respects irreversible harms identified in this Written Representation.

BEPS therefore submits that the Examining Authority should recommend that development consent for East Pye Solar be refused and that the Secretary of State should not make the Development Consent Order.

Appendix

Appendix A – Norfolk Barbastelle Study Group Survey Report - January 2025

Appendix B – [redacted], Botanist Letter to East Pye Solar, 2025

Appendix C – Norfolk Rivers Trust, Crayfish River Tas Crayfish evidence email

Appendix D – Hannah Fraser Consulting Ltd. (HFCL), *Independent Review of East Pye Solar Environmental Statement: Water Environment*, Report 31375R1

Appendix E – [redacted], *Independent Heritage Impact Assessment Report*, October 2026

Appendix F – Transmission Solar Developers lobbying DESNZ for Tx+Dx

Appendix G – Macquarie/DESNZ FOI Bundle

Appendix H – Macquarie/DESNZ Lobbying timeline

Appendix I - NESO Methodology FOI

Appendix J – NESO, *Gate 2 Criteria Methodology,* 12 June 2026

Appendix K – Natural England, *Definition of Favourable Conservation Status for Barbastelle Bat*, RP2974, Edition 1

Appendix L – Tinsley et al. (2023), 'Renewable energies and biodiversity: Impact of ground-mounted solar photovoltaic sites on bat activity', *Journal of Applied Ecology*

Appendix M – Barré et al. (2023), 'Insectivorous bats alter their flight and feeding behaviour at ground-mounted solar farms', *Journal of Applied Ecology*

Appendix N – Carvalho et al. (2025), 'Plant and soil responses to ground-mounted solar panels in temperate agricultural systems', *Environmental Research Letters* 20 024003

Appendix O – ADAS/Welsh Government, *The Impact of Solar Photovoltaic Sites on Agricultural Soils and Land*

Appendix P – ISEP, *Solar PV on Agricultural Land – Essential Components of Environmental Assessments and Reports,* 12 January 2025

Appendix Q – Wilder Ecology, *Literature review: Impacts of ground mounted solar farm/parks on biodiversity*, July 2025

Appendix R – Personal Impact Statements by BEPS members

AI Disclaimer: BEPS's submissions are based on research undertaken by multiple human research teams. Given the scale of the East Pye Solar application, the volume of documentation and the extent to which issues overlap across environmental, technical, legal and planning topics, BEPS also uses a closed-project bespoke GPT as a research and analytical tool.

The GPT is used to bring together and cross-reference research already undertaken by the BEPS human research teams; to identify connections between topics and evidence across the application; and to assist in analysing that material alongside Planning Inspectorate documents, pre-examination and examination material, evidence from statutory consultees, relevant guidance, best practice, and peer-reviewed research. Its purpose is principally to enable systematic cross-referencing across a documentary record of a scale that would not be practicable to analyse comprehensively by manual methods alone.

AI is not used as a substitute for human judgement or responsibility. Submission documents are compiled, reviewed, edited and checked by human members of BEPS before submission. Sources and evidential propositions are checked wherever material to the argument, and BEPS determines which arguments and conclusions are advanced.

BEPS accepts responsibility for the contents and arguments contained in its submissions.

Written Representations submitted in response to East Pye Solar
PINS Reference: EN0110014

Appendix: R

Personal Impact Statements received By Block East Pye Solar

Submitted by BEPS (Block East Pye Solar [redacted])

20250204 - Personal Impact Statement - Brooke – [redacted]

Date: 3 February 2025 at 21:33:21 GMT
Subject: East Pyle Solar impact statement

Please see below my impact statement, apologies for time it's taken, we have been away.

[redacted]

Our property directly backs onto the field proposed at Brooke for solar installation. We purchased the property in 2023 for renovation, to retire to. I was raised in Poringland, and am very familiar with the area. We have extensive family in Brooke village, and had looked forward to a quiet, tranquil retirement in a lovely property that backs onto open farmland, which did have an abundance of wildlife.
We have many concerns about the proposed solar developments :-
1. The sheer scale of the development. From the rear of our property, given the slope of the land, we will be able to see nothing but solar panels and associated fencing. The land was cleared over a year ago. Naively, we thought that the farmer was going to replace the removed trees and hedgerows, taking advantage of the Governments replanting initiatives. How wrong we were, turns out that if you remove the habitat for wildlife, they move on! Difficult to survey any wildlife that have been displaced. Totally disgraceful tactics from the landowner.
2. Noise. The BESS storage emit an incredibly shrill, high pitched noise. The effects on anyone's mental heath that is within hearing of these units, will inevitably be affected. It's tantamount to inflicting tinnitus on residents. I am also extremely worried of the long term health effects these installations could have, no one knows as there is currently no data.
3. Construction. Our property is almost at the end of [redacted], on a blind bend, where the road narrows to almost single width. The construction traffic will have no option but to use this road. The increase in amounts of heavy traffic will be huge. The constant noise from this traffic from early morning will have an impact on daily life. I also worry for access to and from our property, the risk of accident will definitely rise.
4. I feel extremely frustrated that the local planning committees are to be bypassed for these proposals, effectively removing the voice of locals. All marketing by East Pye concentrates on what they perceive as positives, and locals very much do not. We are not being listened to, or considered. I'm happy to be called a NIMBY, I don't just not want panels in my back yard, I don't want them in anyone's back yard, there is no need when we have very real alternatives.
5. Loss of prime agricultural land. I'm not against solar panels, I have them on my roof. With a little imagination and investment, solar panels can be placed on numerous buildings, or , if really necessary, on land that does not adjoining some truly picturesque villages. So many villages are set to be blighted by these installations, which are ill thought out. Many other spaces are available which destroy no one's lives.
6. Loss of amenity. The Brooke installation edges a conservation area in places. The land also has residents on three of the perimeter edge's. The land is used for trekking, hiking and dog

walking. All wonderful country pursuits that make this area a lovely place to live. We looked forward to having prime, beautiful dog walking just outside our back door, a notion destroyed by this application.The industrialisation of the land, fenced off and inaccessible not only to people but wildlife too is heartbreaking. The romantic notion of sheep grazing amount the panels is [redacted], I've yet to see one sheep among any installation.
7. Lack of a standard buffer zone. We are very worried that there is currently no definitive buffer zone proposed to protect residents from some or all of the issues mentioned above.

In short, we are desperately upset about the proposed siting of many of the solar installations, but the Brooke installation directly affects us. The thought of looking out over an endless sea of solar panels every day fills me with such a level of anxiety and despair; it wakes me at night already, before any permissions granted, or construction has started. I understand the need for renewable energy, what I do not and cannot understand is the proposed destruction of our beautiful county, when roof top installations could give a similar solution.

[redacted]

20250205 - Personal Impact Statement - Brooke - [redacted]

Impact statement in regards to site 9 being proposed by East Pye Solar for installation of solar panels.

Myself [redacted], my partner and our two children will all be directly affected if solar panels are installed on site 9.

We live at [redacted], our house and garden look directly over the proposed fields and the garden is within a few meters of where the solar boundary would start.

I have detailed the impacts below. I have also attached photos giving further detail and visualisation.

Barn Owls and other wildlife:-

As a family we care strongly about the environment and the wildlife in the area. I provide wild bird feed and nesting boxes for smaller birds and have a barn owl nest box at the end of my garden. This nesting box faces directly over and borders the proposed solar panel site The box includes a web cam so that I can monitor breeding of the owls, I have attached successful breeding photos on subsequent pages. We also have many bats living and feeding in the area of our house and over the fields of the proposed solar panels, as can be seen easily during the summer months

However:-

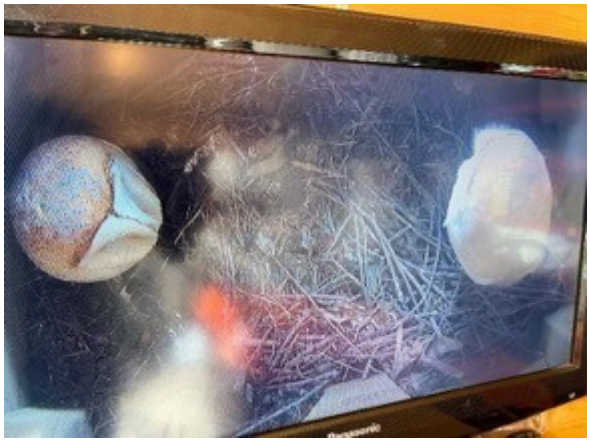
There was a large mature hedge with trees running through the fields from the [redacted] but unfortunately the farmer removed the hedges and screening in March 2024, destroying potential bird nesting sites and other wildlife cover in the process. Ultimately the removed hedges and trees were formed into massive piles and set on fire, hardly an act by someone who cares for the environment! I can see no logical reason as to why this work was completed and can only assume that this was to maximise potential for solar deployment with absolutely no regard for wildlife or the environment. The barn owls had returned to the nest box in early 2024, the removal of the hedge and trees was carried out in March 2024, at this point the barn owls left the nest box, did not breed in 2024 and have not returned in 2025.

Impact:-

The removal of the hedge and trees has resulted in genuine concern and worry for us that even actions being taken with the solar farm as a proposal is already having a negative impact on protected birds and wildlife. If a solar farm and fencing etc was installed on this site it would almost certainly result in the demise of barn owls, bats and other wildlife living and breeding in this area.

Impact on wildlife and barn owls.

Owls breeding in 2022











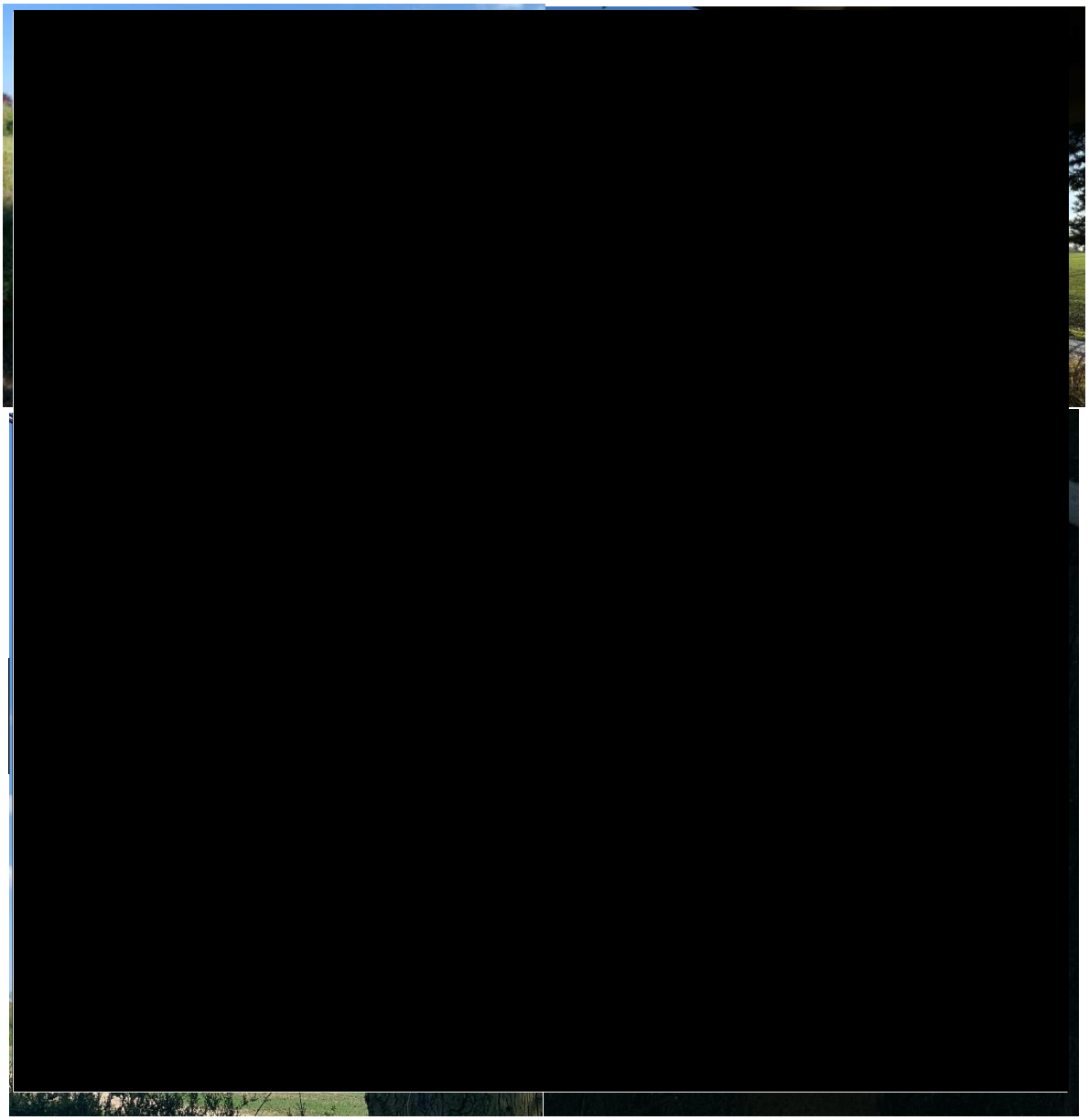
Owls breeding in 2023

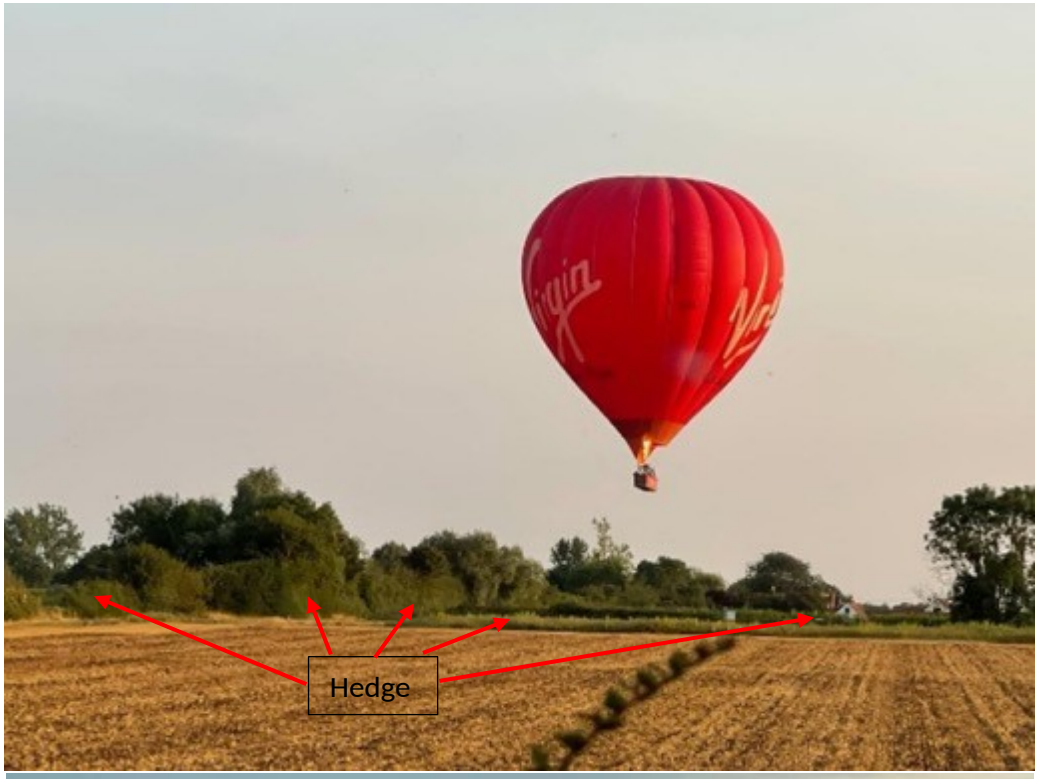






The Barn Owls were back in the nest box in early 2024, the large mature hedge and trees were removed in March 2024. The owls did not breed and left during the hedge destruction and have not come back.




Hedge


Site 9
Hedge and trees removed March 2024


Hedge


Site 9
Hedge and trees removed March 2024


Hedge


Site 9
Hedge and trees removed March 2024


[redacted]
Site 9
Hedge and trees removed March 2024


Owl nest box empty February 2025

Land increases in elevation moving away from Brooke towards Mill Lane which would incrementally raise the height of proposed solar panels:-

The field from [redacted] has a natural incline from the Brooke end all the way to Mill Lane/Littlebeck Lane. This incline will make it impossible to screen the solar farm from the houses on [redacted] as the solar panels would progressively increase in height as they move away from the village towards Mill Lane. The land increases in height by 9M from the [redacted]

Impact:

The [redacted] would overlook a massive field of industrial black panels ever increasing in height moving away [redacted] As the natural land increases in height, it would be impossible to screen any of this from [redacted]. This industrial view would be in the middle of the countryside and would have a massive negative impact on property values. As I was relying on downsizing in the future to support my retirement this potential negative impact is resulting extreme anxiety, stress and worry.



Exposed Site:-

The site is very exposed and can be seen from every direction, it also has houses on three of the boundaries **Impact:**

Brooke is a conservation village and dates back to the time of the Domesday Book in 1086, meaning it is over 900 years old; installing a massive industrial solar complex almost up to the conservation area is just a ridiculous proposal and would have a massive negative impact on the area. A far better solution would be to install solar panels on existing buildings and new builds rather than defacing the countryside and removing valuable farm land.

20250208 - Personal Impact Statement - Brooke – [redacted]

[redacted]

5TH. February 2025

To whom it may concern,

Personal Impact Statement.

These are not thoughts I ever had intention to share.

Word association: Impact, CRASH, that is exactly how I would describe the impact of the application for an Industrial size solar site at the bottom of our garden.

When the image of your surroundings is altered, you realise just how much of your life is invested in those surroundings.

There is security in the objects and projections of happiness that surrounds those things, like a death, your home and the memories attached to that home, once compromised, threaten everything you believed to be true of your life.

We have been in this house for 30yrs, we rented the house for a year whilst looking for something else. We couldn't find anything so my husband said "let's buy this place, don't worry I will change it into a home you will love".

He has over the years, managed to do just that, we have created a house that we love and filled it with 30yrs of memories.

[redacted], we have had wildlife experiences that touch your soul, wild pigeons that will fly from my hand to my husband's hand and back, doves, partridges and pheasants that will eat from our hands.

One pheasant had her own Facebook page, we picked her up on the very field now proposed for solar panels, she was tiny and would not have survived the weather forecast for that night.

We brought her into the house, put her into a box on the rayburn and didn't expect her to make it through the night, but she did. We released her at 77 days old, we thought that would be it, but she came back.

She slept in our stables and finally left that autumn. She returned the following spring with one baby, the next year with five babies and the following year with incredibly, thirteen babies. This pheasant came into our house, she loved power

tools (we have video evidence), she would be beside us whilst we were working on the house.

To each other, we call our house ‘the sanctuary’, the place to come back to, to feel safe and secure, we celebrated our wedding here.

It seems to me, everything above is no more. Immediately that bubble is burst, that place is altered to become unrecognisable in your mind, your past and memories of that place are shattered and the image of your future is altered beyond recognition.

Not least, the uncertainty and financial implications, the value of our house is intrinsically linked to our future, it gives us choices or we thought it did. Significantly reduced value and certainly a reduced market (would you buy a house next to 150 acres of Industrial solar which will, in time be a scrapyard) throws our retirement and options into disarray.

We have become ‘hostages’ in our own home, the home we would eventually have moved on from to enable us to have a comfortable and self-funded retirement.

It is so shocking to the heart and mind and it is almost unbearable.

The dream of having my own horse at home has been my goal for as long as I can remember. I am now [redacted] old and my horse is 29, we are equally lame, she is definitely greyer than me but she is at home with us.

I was hoping that my life with horses would go on beyond my beloved girl, but I cannot face the prospect of having another horse here and riding next to the destruction of our countryside by industrial solar panels.

It is desperately sad that a dream attained could be destroyed overnight by anything, when it is a lie being sold to us under the threat that we must destroy our countryside, in order to save our planet, it is just FRAUD.

The strain that humankind’s excessive consumption is putting on our planet is disastrous for the environment. We all need to consume less, whether it be plastic or otherwise, by all means ask us to ‘GIVE UP’ something to protect the planet, but not our countryside. I don’t hear a rallying call from our government for us to consume less, fly less, use less energy.

The charity, Bite Back have shown that the 10 largest food manufacturers had combined carbon emissions world-wide, that significantly exceeded those of the entire global aviation industry and indeed, the emissions of the UK as a whole!

Cover those factories, wholesale units and supermarkets with solar if you must but don’t tell me there is any justification for solar panels on farmland or the open countryside.

The thought of living with the threat of this project for several years is almost intolerable, lives will be ruined.

Sharing this feels like an assault on my privacy. I felt it was necessary, to show the degree of stress, worry and hopelessness I and no doubt many other people are feeling.

I crave the quietening of my mind but fear that it will not come any time soon.

When I go through our garden to my horse, I look at the surroundings, a few words of a poem go through my mind and I weep, every day.

“I missed you quietly today, so quietly that no one noticed.

I missed you so quietly today, but I felt it so loudly”.

[redacted], Island Green Power, East Pye Solar, your projects and policies are causing me distress, alarm and depression, what is the procedure for reporting this incident?

[redacted]

20250217 - Personal Impact Statement - Brooke - [redacted]

6th February 2025

Personal Impact Statement: Opposition to the Construction of Solar Farms on Adjacent Farmland

I am writing to formally express my opposition to the proposed solar farms to be constructed on the agricultural fields directly next to my property. While I fully support the transition to renewable energy, I have serious concerns about the significant negative impacts this development will have on my property, my quality of life, and the local environment.

Impact on Property Value and Marketability

First and foremost, I am deeply concerned about the impact this development will have on the value of my property. The construction of large-scale solar farms in such close proximity to my home would dramatically reduce its appeal to potential buyers. As it stands, the tranquil, rural setting is one of the primary features that attracted me to this area in the first place. The introduction of industrial infrastructure, including solar panels and associated equipment and fencing, will diminish the aesthetic and environmental qualities that make the location desirable.

I also worry about my ability to sell the property in the future. With the changing landscape and the industrialisation of what was once peaceful farmland, I fear that buyers will be deterred from considering my home, leaving me with limited options should I need or want to relocate. The potential stigma attached to living near an industrial site will make it harder to find a buyer at a fair price.

Industrialisation of Farmland

The rural countryside is increasingly at risk of becoming over-industrialised. Turning open farmland into a solar farm is a significant step in the wrong direction. Once this land is repurposed for industrial use, it is unlikely that it will ever return to its natural state or agricultural use. This not only impacts the local farming community, but also contributes to the degradation of our countryside, turning it into a site more akin to an industrial park than the working farm landscape that has historically defined this area.

Visual Impact on the Countryside

Another pressing concern is the visual impact this project will have on the surrounding countryside. My home is located in an area prized for its natural beauty, which greatly contribute to my well-being and enjoyment of the property. The installation of vast arrays of solar panels will forever alter the character of the landscape, creating an eyesore that will overshadow the

peaceful agricultural surroundings. The aesthetic damage caused by the large, mechanical appearance of solar farms will detract from the charm and peacefulness of the area for all who live here, visitors, and tourists who cherish the countryside.

In conclusion, while I recognize the importance of renewable energy initiatives, I strongly believe that this development is not appropriate for this area. The consequences for property value, the rural character of the land, and the visual landscape are too significant to overlook. I urge local authorities to consider alternative locations for the solar farm that do not negatively affect residents and the environment in this way.

Thank you for taking the time to consider my concerns.

Sincerely,



20250502 - Personal Impact Statement - Brooke – [redacted]

5 February 2025

Impact Statement Opposing the Construction of Solar Farms on Farmland

I am writing to express my strong opposition to the proposal for the construction of solar farms on agricultural land. While I fully support the transition to renewable energy, I believe that using productive farmland for solar energy production is not a sustainable or responsible solution. The following points outline the significant concerns regarding this proposal:

Loss of Arable Land for Food Production

Farmland is a finite resource, and the loss of productive agricultural land to solar farms could jeopardize our food security. With the global population rapidly increasing, it is crucial to preserve the land necessary for growing crops and raising livestock. Converting prime farmland into solar energy fields would reduce the availability of local food sources and make us more dependent on imported goods, which would have negative consequences on both the economy and the environment.

Negative Economic Impact on Farmers and Rural Communities

Farmers are the backbone of rural economies. Diverting farmland for solar energy production could lead to the displacement of local farmers, especially in regions where agriculture is the primary economic activity. The economic instability that may follow would affect families, small businesses, and communities that rely on agriculture for their livelihoods. The longterm economic consequences would outweigh the short-term benefits of renewable energy.

Environmental Impact and Land Degradation

While solar panels themselves are a clean energy source, the installation of solar farms often involves significant land disruption, soil compaction, and the loss of natural habitats. The process of clearing and preparing farmland for solar installation can lead to erosion, soil degradation, and a decline in biodiversity. Additionally, the long-term presence of large-scale solar farms may hinder natural ecological processes, making it more difficult for the land to return to agricultural use if needed in the future.

Better Alternatives for Solar Energy Development

Rather than taking valuable farmland out of production, we should explore more innovative ways to develop solar energy. Rooftop solar installations, brownfield sites, and areas of low agricultural value should be prioritized. Solar energy can be integrated into existing infrastructure, such as on the roofs of commercial buildings or along major highways and motorways, without sacrificing vital farmland. By utilizing these spaces, we can still meet our renewable energy goals without compromising food production or the economic wellbeing of rural communities.

Cultural and Heritage Concerns

Agricultural land represents more than just a source of food; it is also part of our cultural heritage and identity. For many communities, farming is a way of life that has been passed down through generations. The construction of solar farms on farmland risks undermining this cultural connection to the land and disrupting rural traditions. The transition to renewable energy must be done in a way that respects and preserves local cultures and histories.

Conclusion

In conclusion, while the push for renewable energy is urgent and necessary, it is essential that we find solutions that do not come at the expense of our agricultural land, food security, or rural economies. The conversion of farmland into solar energy production areas is not a sustainable or balanced approach. I urge decision-makers to consider alternative sites for solar energy development and to prioritize the long-term health of our agricultural systems and communities.

Sincerely,



20260210 - Personal Impact Statement - Woodton – [redacted]

[redacted]

10th February 2026

PERSONAL IMPACT STATEMENT

Address: - [redacted]

EFFECTS OF PROPOSED EAST PYE SOLAR FARM (PARCEL 10)

My name is [redacted] and I am submitting this statement to outline the effect that the proposed East Pye Solar Farm, located across the B 1332, [redacted], would have on my daily life and wellbeing. Together with the negative impact the proposed East Pye Solar Farm will have on the area where I live.

In search of a countryside residence that offered peace and tranquillity I moved here some 24 years ago, with no inclination that the soul of the area would be under threat in years to come. My husband, [redacted] and I brought the then named [redacted] A beautiful 16th Century Grade Il listed [redacted]. Thereafter, we became its custodians and together with the local council, who scrutinise every new planning application to ensure that it is in keeping with the ancient age of the property, [redacted] has remained well cared for and materially unchanged. Of course, solar panels on the roof are prohibited as they would be considered an eye saw and not in keeping with our property at all!

The Tumbledown Dick is well known in the village of Woodton and it has a rich history. The public house was painted by the well-known local artist, Edward Seago. A painting bought and in the possession of Michael Fleming the brother of Ian Fleming renowned for his James Bond novels. On 30th August 1939, two days before the outbreak of the 2nd World War two friends, Sir Alfred Munnings, one of England's most celebrated artists and Adrian Bell a poet, were found drinking at the Tumbledown Dick near Woodton. Both protectors of rural Britain, they were aware that the peace of the countryside might be shattered by war with Germany and they debated with animated dread at the prospect. To commemorate the evening Bell wrote a poem, 'At the Tumbledown Dick'.

History does have a way of repeating itself and although the East Pye Solar Farm cannot be compared with a German invasion the sheer size and scale of the project is worrying. In my case if the proposal were to go ahead the only Right of Way available to me would be barred by fifteen-foot solar panel structures stretching over acres and acres of A grade farmland, normally reserved for food production. A Solar Farm that would generate audible noise and unnatural and distracting glint and glare. An industrial estate in a place that should be reserved for farming and the rich diverse ecology that thrives here.

In addition, to living in a heritage property our garden and beyond supports a huge variety of wildlife. Deer, rabbits, squirrels, pheasants, red kite's, buzzards, birds typically associated with Norfolk gardens including woodpeckers and jays, and our barn owl box continues to be a success story. We also have a large pond where mallard ducks, moorhen's and a heron thrive. Sadly, hares that are often seen playing in the fields adjacent to Harvey Lane, that have been designated for Parcel 10 solar panels, are not visitors. Our fear is that the construction of the Solar Farm, despite planned mitigation, will be detrimental to the wellbeing of our wildlife.

The B 1332 Norwich to Bungay Road, [redacted], that runs alongside part of the proposed site, is to be used to carry heavy vehicles during the construction phase of the East Pye Solar Farm. This is of concern because the process will inevitably be disruptive and noisy on a road that is already busy. Woodton village has grown considerably over the past few years and despite an increase in traffic there has been no change to the infrastructure in the area.

Although, I support renewable energy in principle, the developments need to be appropriately located, and it is my belief that Norfolk has already been oversubscribed with Solar Farms and that the enormity of what is proposed in our area would be detrimental to all those that live in the vicinity. It would destroy our way of life and would take away all the positives that the area has to offer. Unfettered countryside, beauty, peace and tranquillity are but four from a long list of sacrifices that would have to be made. In addition, the detriment to mental health for residents living alongside and being surrounded by acre upon acre of fifteen-foot solar panel structures cannot be underestimated.

On these grounds I humbly request that permission for this project be declined.

Yours faithfully,

[redacted]

20260407 - Personal Impact Statement - Hempnall – [redacted]

[redacted]

07/04/2026

Hempnall Personal Impact Statement – East Pye Solar Farm

I am writing to express my concerns regarding the proposed East Pye Solar Farm and its potential impact on the local area, community, and environment.

Environmental

1. Traffic Disturbance and Road Wear

The construction and maintenance of a solar farm of this scale will inevitably result in a significant increase in heavy goods vehicle (HGV) traffic along local rural roads. These roads are not designed to accommodate sustained high volumes of large vehicles, and this is likely to lead to increased congestion, noise, and disruption for residents. Additionally, the added strain will accelerate road wear and deterioration, leading to more frequent repairs and associated inconvenience.

2. Noise Impacts

The proposed development raises significant concerns in relation to noise, both during construction and throughout its operational lifetime. Construction activity and increased HGV movements will inevitably elevate noise levels over a prolonged period, disrupting what is currently a quiet rural environment.

3. Of particular concern is the operational noise associated with solar farm infrastructure, including inverters and transformers, which are known to emit a continuous low-frequency hum. In a rural setting where background noise levels are very low, even modest increases in noise can be highly perceptible and intrusive. This type of constant, tonal noise is widely recognised as being more disturbing than intermittent sounds, particularly during evenings, nights, and early mornings when ambient noise is at its lowest.
4. National planning guidance and standards such as World Health Organization and British Standards Institution emphasise the importance of protecting communities from adverse noise impacts, particularly where there is a noticeable acoustic character change. A continuous humming noise has the potential to exceed acceptable thresholds when assessed against existing background levels, leading to a significant adverse impact on residential amenity.

5. Furthermore, prolonged exposure to low-level but persistent noise has been linked to sleep disturbance, stress, and reduced overall wellbeing. Given the quiet nature of the surrounding area, there is a real risk that the introduction of constant operational noise would fundamentally alter the acoustic environment, eroding the sense of peace and tranquillity currently enjoyed by residents.

6. Loss of Agricultural Land

The proposed development would involve the use of productive agricultural land currently used for crop cultivation. This raises concerns about the long-term loss of valuable farmland, particularly at a time when food security and sustainable local food production are increasingly important. The repurposing of fertile land for energy generation may not represent the most balanced or responsible land-use decision.

Personal

1. Impact on Walking and Cycling

The local area is used by residents and visitors for walking and cycling, contributing to both physical wellbeing and enjoyment of the countryside. Increased traffic, particularly during the construction phase, could make roads less safe and less appealing for these activities. This may discourage outdoor recreation and reduce the quality of life for those who rely on these routes.

2. Wildlife and Ecosystems

The development has the potential to disrupt local wildlife and established ecosystems. Construction activity, fencing, and long-term land use changes could fragment habitats and displace species. While solar farms are often presented as environmentally friendly, their local ecological impact should not be overlooked, particularly in rural areas with sensitive biodiversity.

3. Light Disturbance

The introduction of security lighting and potential glare from solar panels may alter the natural light conditions of the area. Increased artificial lighting could contribute to light pollution, affecting both residents and nocturnal wildlife. The rural character of the area, currently defined by low light levels and dark skies, may be significantly diminished.

4. Impact on Mental Health and Wellbeing

The combined effects of increased noise—including persistent operational hum— traffic, light disturbance, and the industrialisation of a previously rural landscape may have a negative impact on residents' mental health and wellbeing. Peaceful surroundings, access to nature, and a sense of tranquillity are important contributors to mental health. The loss of these

qualities could lead to increased stress, anxiety, and a reduced quality of life for those living nearby.

Conclusion

While I recognise the importance of renewable energy in addressing climate change, it is essential that developments are carefully sited and managed to minimise negative impacts on local communities and environments. In this case, the cumulative effects on traffic, noise (including tonal and continuous operational noise), infrastructure, agricultural land, recreational use, biodiversity, light disturbance, and mental wellbeing raise significant concerns that should be fully addressed before any approval is granted.



20260211 - Personal Impact Statement - Fritton - [redacted]

[redacted]

10 February 2026

TO WHOM IT CONCERNS

OBJECTION TO EAST PYE SOLAR FARM

My name [redacted] I am directly affected by the East Pye Solar farm proposal and wish to be registered and included in the book of reference as a Category 3 person in respect of that proposal.

I would like to claim compensation for all personal losses and harm which result or will result from this proposal affecting the area north of the village of Fritton.

I moved to the area in 1989 to work as a [redacted] away. I have lived in my present house since 1992. As a resident of Fritton since then and [redacted] I have a very strong claim to knowing the area intimately and I got to know almost [redacted] which covered well over 100 square miles, including Fritton and Hempnall, the villages nearest to my home and most closely affected by the proposal. It is no surprise that most local residents share my objections and some have additional objections.

[redacted] the Grade 1 listed 12th century St Catherine's Church directly opposite are in the Conservation Area designated by South Norfolk Council. [redacted] Grade 2 listed and is directly opposite and less than 25m from the proposed solar farm on the field on the other side of the road; the solar arrays would be a similar distance from the church. In December 2019 the Council published its '*Fritton Conservation Area Character Appraisal and Management Guidelines*' (available on its websitehttps://www.southnorfolkandbroadland.gov.uk/planning/conservation/conservationareas/conservation-areas-in-south-norfolk) which stresses the importance of the historical, scientific, architectural, agricultural, natural and visual aspects of the immediate area. The tranquil rural environment and every one of these various features would be permanently and irretrievably destroyed by the industrialisation of the area by a solar farm. The proposed arrays, 4.3m in height and much higher than standard ones, would contribute greatly to the visual upset for us. A 13m tall Battery Energy Storage System (BESS) is proposed for a position in clear line of sight from my property. Light pollution from security features, glare and glint from the sun, and electrical and construction noise pollution would be intolerable. Residential property including

mine has already suffered a reduction in value directly from the proposal to build a solar farm, and that value would drop further still by the actual presence of a solar farm. To put a solar farm in a place with similar visual, historic, natural and peaceful qualities such as Hampstead Heath or Regent's Park would never be considered or countenanced. It is extraordinary and unreasonable that productive farmland and this area should be destroyed by a solar farm.

I fear for my welfare and those of my family and local people if the solar farm goes ahead at all. I chose to live and work in South Norfolk precisely because of its rural nature with its seasonally changing character and views, because of its tranquillity, and because of the sense of natural rhythm which mean so much to me and those who live here. It is unacceptable to destroy it.

I have many objections, principally:-

- The loss of high-quality agricultural land would never be reversed. Even with political will and the predicted removal of the infrastructure several decades hence, the natural constitution of productive soil would be lost for good. Domestic food security is even more important than ever because of severe and widespread geopolitical trouble. The government's document (United Kingdom Food Security Report 2021: Theme 2: UK Food Supply Sources, Updated 22 October 2024 https://www.gov.uk/government/statistics/united-kingdom-food-securityreport-2021/united-kingdom-food-security-report-2021-theme-2-uk-food-supply-sources) makes the risk of food insecurity clear. It states that just under half of the actual food on plates is produced in the UK; and that degradation of this natural capital, the soil and agricultural land, poses an underlying threat to the UK's ability to produce food. Many different sources and authorities have published other documents and studies of a similar nature in decades past as well as increasingly in recent years.

- Flora and fauna: there is an extraordinary amount of wildlife here, in the air and on the ground, whose survival is wholly dependent on that natural ground. All insects and animals would suffer greatly from the loss of their habitat, as well as the permanent restriction imposed by fencing, and the physical structures of the arrays. Extremely severe environmental damage has already been demonstrated in a study by the Welsh Government at the much smaller Llanwern solar plant of 145ha. East Pye is much bigger, 1100ha. An important finding was that mitigation measures announced before the development have not worked. Where public projects are concerned lessons are almost never learned.

- Traffic: this village sits astride the C201 road from Norwich to Starston. The road is completely unsuitable for the heavy and prolonged construction traffic required to build a solar farm. All the other villages on this road have speed limits of 30mph, yet Fritton is the only one whose speed limit is 40mph even though it has no pavements or street lighting, safety features

which are generally accompanied by a 30mph limit or lower. Despite detailed representations to Norfolk Council to remind it of national government guidelines and the separate Police guidelines that rural villages should have a speed limit of 30mph, or perhaps less if they do not have street lights, pavements or where there are additional hazards (schools, difficult bends etc), Norfolk County Council has confirmed it will not reduce our speed limit and has refused to explain its disregard of the guidelines.

In summary the East Pye Solar proposal for this area and for my village is for many reasons detrimental to the wellbeing of those who live here, and highly damaging to the natural environment of soil, fauna and flora. The very name '*solar farm*' deliberately and misleadingly suggests an entity in harmony with the countryside, but is the very opposite. In reality it is an enormous industrial factory wrecking farmland, nature, and rural culture. A solar factory once built is also practically irreversible. There is strong feeling that local opinion is being wilfully ignored, and this aggravates the matter further. I oppose it.



20260211 - PERSONAL IMPACT STATEMENT - Fritton - [redacted]

PERSONAL IMPACT STATEMENT

To: The Planning Inspectorate / East Pye Solar Project Team Regarding: Objection to East Pye
Solar Farm Proposal Date: February 11, 2026

Name: [redacted] Address: [redacted]

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1. Introduction and Reason for Residency

I moved to my home in Fritton in 2022. The primary motivation for this move was the unspoilt countryside, the quietness of the village and surrounding areas, and the desire for a secluded, safe, rural location for my child to grow up in. This development threatens the very qualities of life that led me to choose this community.

2. Disproportionate Regional Burden and Unfair Targeting

I am deeply concerned that Norfolk, and South Norfolk in particular, is being disproportionately targeted for solar development compared to the rest of the UK.

- Regional Imbalance: While government ministers claim solar only covers roughly 0.1% to 0.4% of the UK's total land, researchers and local campaign groups (CPRE) have identified that in parts of South Norfolk, the concentration of proposed solar is closer to 10% of the land.
- The "Power Station" Effect: Norfolk County Council has formally expressed concerns that the county is being unfairly pressured to become a "power station for London". I believe that renewable energy infrastructure should be spread more equitably across the UK to ensure no single rural community is forced to lose its identity.
- Alternative Siting: National targets could be met more sustainably by prioritizing rooftop solar on commercial buildings and brownfield sites before industrializing productive Norfolk farmland.

3. Cumulative Impact: The Industrial Patchwork

The East Pye Solar proposal (approx. 2,700 acres) must not be viewed in isolation.

- Cluster Pressure: When combined with the neighboring 3,600-acre Tasway Energy Park and other nearby schemes like High Grove (4,000 acres), the

result is a continuous "industrial zone" of fencing, cabling, and battery storage that spans tens of thousands of acres.

- Community Harm: This "patchwork of industrial installations" creates an unacceptable cumulative harm that fragments wildlife habitats and permanently alters the rural fabric of Norfolk more dramatically than any change in living memory.

4. Impact on Landscape, Safety, and Wellbeing

- Visual Amenity: Panels up to 4.5 meters high will replace natural scenery. Mitigation through hedging can take 15 years to reach effective height, meaning my child will grow up in an industrial shadow.
- Traffic: Construction will bring an estimated 96 HGV movements per day to rural lanes like The Street, Fritton and the B1527, which are entirely unsuitable for this volume of industrial traffic.
- Mental Wellbeing: Living "hemmed in" by miles of security fencing and CCTV causes a profound sense of loss and stress for residents who moved here for peace and connection to nature.

3. Traffic and Construction Disruption

The construction phase will bring heavy vehicles, noise, dust, and significant disruption to local roads. This would directly affect my ability to travel safely and comfortably, particularly along The Street, Fritton and the B1527 Bungay Road, neither of which are designed for sustained heavy vehicle use.

4. Loss of Agricultural Land

The land designated for this farm is currently productive agricultural land. Its loss reduces local food-growing capacity and causes a long-term shift away from farming. As someone who values the agricultural heritage of this area

Food Security: Norfolk County Council recently pledged (January 2026) to protect 16,000 acres of council-owned farmland, citing that "Norfolk has had too many solar farms already" and we must prioritize arable land that feeds the country.

Irreversible Damage: Converting these fields for a 60-year term causes irreversible damage to soil character and the agricultural heritage of South Norfolk.

5. Emotional and Wellbeing Impact

Living in such close proximity to an industrial-scale solar farm will cause me significant stress and a sense of loss. I deliberately moved here for the peaceful rural environment. If this receives approval, the area I rely on for relaxation, recreation, and connection to nature will be significantly diminished, directly impacting my mental wellbeing.

6. Cumulative Impact

The East Pye proposal directly affects both Fritton and Morningthorpe. When viewed alongside the nearby Tasway proposal, the cumulative effect risks transforming our rural landscape into a patchwork of industrial installations. This is not a sustainable or balanced approach to meeting energy needs and places an unfair burden on our local villages.

7. Noise, Glare, and Wildlife

While often described as quiet, the inverters, transformers, and maintenance activities generate noise that will be noticeable in our quiet environment. Furthermore, the construction and subsequent operation will undoubtedly disturb habitats, restrict animal movement (including deer, hares, and birds of prey), and reduce the biodiversity currently present around my home.

Conclusion

I support renewable energy in principle, but developments must be appropriately located and proportionate. The scale and proximity of the East Pye Solar Farm would have a significant negative effect on my daily life, mental wellbeing and the character of my home. I respectfully request that the application be refused.

20260227 - Personal Impact Statement - Stoke - [redacted]

Personal impact statement [redacted]

I live in Stoke Holy Cross, an adjacent village to the proposed East Pye scheme. The farm has been in our family for over a century, and we have lived here since 1920.

“Because of my long-standing connection to this land and community, I strongly object to the East Pye Scheme and the irreversible harm it would cause. The rural areas in these photos are all views of the countryside of the proposed scheme. By prioritising rooftop solar on existing industrial buildings, renewable energy can be expanded without sacrificing productive farmland or rural heritage such as its ancient field patterns.

The village communities of South Norfolk live here and our life stories are intertwined to this landscape.



St Catherine’s Church, Fritton with snowdrops and daffodils looking towards **the north side, a field of the proposed scheme** (Photo b [redacted] 23rd Feb 2026)

The proposed scheme would industrialise a landscape that is both agriculturally productive and historically significant—particularly the historic route of the Pye Road/A140 whose significance few know about and whose legacy the proposal overlooks.



Walkers in the distance, Fairstead lane to the **North and South the fields are of the proposed scheme** which would obscure any views, only solar panels would be visible (Photo by [redacted], 22rd Feb 2026)

The vast area in question is productive farmland and a delicate natural habitat, rich in history and valued for its tranquillity and heritage. The scheme is unsuitable and harmful for this attractive, rural area.



That the proposed scheme is placed on the historic route of the Pye Road/A140 and named after it is in my view, inappropriate and disregards the area's legacy. It commercialises or misrepresents our heritage.



Ancient Oak tree looking south to field of the proposed scheme at B1527 and the Roman road A140 junction (Photo by [redacted] 23rd Feb 2026)



Roundabout on B1527 and the Roman Road A140 with **fields of the proposed scheme to the East and West** (Photo by [redacted] 23rd Feb 2026)

Environmental concerns are paramount. There is no credible evidence that farmland, once converted for industrial use, can be restored to its original state. The loss of habitat by the proposed scheme would negatively impact local wildlife and disrupt established ecosystems.



Field in the proposed scheme at The Street, Fritton with two hares. (Photo by [redacted] 23rd Feb 2026)

Chalk streams are often referred to as ‘England’s rainforests’ due to their biodiversity and ecological value. Chalk streams—formed over 10,000 years—are globally rare ecosystems. Seventeen percent of chalk streams were in good ecological status (Environment agency, 2019). Sixty-two of Norfolk’s counsellors demand urgent action to protect these rare chalk streams (Norfolk Wildlife Trust, 19 02 25). There are specific risks with the proposed development such as soil compaction, run off an shading. Any alteration to surrounding land use risks degrading water quality, flow patterns, and the habitats dependent on them.



North/South clear flowing **stream** village of Hempnall 23rd February 2026

or these reasons, I respectfully urge the planning authorities to reconsider this proposal in favour of alternatives that protect South Norfolk's heritage, biodiversity and productive countryside



[redacted]



20260303 - Personal Impact Statement - Saxlingham Nethergate – [redacted]

[redacted]

3rd March 2026

To whom it may concern,

Re: Personal Impact Statement of the proposed East Pye Solar Development

As a resident of Saxlingham Nethergate, who's property is at the heart of the village, I would like to submit the following for consideration.

- **Impact of national food security.** [redacted], I am deeply concerned about the implications this development poses for land availability and national food security. The UK already relies heavily on food imports, sourcing nearly 50% of the food it consumes from abroad, including approximately 85% of its fruit and 50% of its vegetables. The proposed loss of some of our most productive and valuable arable land stands in direct contradiction to national ambitions to strengthen food security and reduce dependence on external supply chains. At a time when resilience, sustainability, and domestic food production are increasingly recognised as strategic priorities, the removal of highquality agricultural land risks undermining progress toward a more secure and selfsufficient food system.

In addition, personally, as residents of [redacted] situated within [redacted], on the proposed AIL and HGV route, I wish to record the following concerns:

- **Risk to house structure:** Our 400-year-old timber-framed house, on stone or rubble shallow foundations, is at serious risk from AIL movements weighing 150– 200 tonnes. The building and its utilities infrastructure were not designed to withstand such sustained vibration and loading.

- **Loss of safe pedestrian access:** Removal of the grass verge and pavement opposite our home will eliminate our ability to enter or exit safely on foot. As our property sits on a corner, road-widening and faster-moving traffic will create unacceptable safety hazards.

- **Night-time disturbance:** All our bedrooms bedroom sits only a few feet from the road, making noise, vibration, and lighting impacts particularly severe.

- **Impact on professional life:** As a [redacted] professional working from home on [redacted], construction disturbance will significantly impair my ability to perform my role.

- **Impact on village and community life:** Saxlingham Nethergate is a predominantly listed Conservation Area. The project threatens the character, cohesion, and wellbeing of the community we have invested in building.

- **Loss of property value:** We purchased our Grade II listed home in a Conservation Area in 2014 in good faith. Since November 2024, estate agents have advised that our home is effectively unsaleable until the application is refused or, if approved, fully built out—likely years away. Buyers cannot assess the scheme's impact on landscape, traffic, and heritage assets.

- **Overall impact on mental health:** Since first learning of the proposal in October 2024, I have experienced significant anxiety, distress, and concern for our long-term future in our home and village.

Yours sincerely

[redacted]

20260218 - Personal Impact Statement - Saxlingham Nethergate - [redacted]

Impact Statement - Proposed East Pye Solar Development PINS Reference: EN0110014 (Long Stratton and Surrounding Villages)

We live [redacted] part of the conservation area. We are exceedingly close to part of the development and directly adjoin one of the proposed access routes to the site.

We moved here 16 years ago largely due to it being a lovely tranquil rural (pastoral) location away from traffic and industrial developments. The proposed East Pye solar PV development will have a material impact on our quiet enjoyment of our property and our enjoyment of the surrounding countryside. Indeed it will completely change the nature of the area and indeed pretty much destroy all the reasons we moved here in the first place.

We are especially concerned about the construction phase of the development which will have a

massive impact on us in terms of noise (traffic and contraction) and overall impact on the surrounding environment.

We would like to specifically like to highlight the following:

1. Site Access: Our property directly adjoins a farm track East Pye intend to use for access to the site, both during construction and thereafter.

The [redacted] itself is a narrow, single track road which is part of [redacted] and is in constant need of repairs (it's just been resurfaced, but no doubt by this time next year will be full of potholes and road subsidence again) and it simply is not suitable for use by the countless HGVs and machinery needed to supply the site. Not to mention the danger to the pedestrians who use it (including individuals in wheelchairs [redacted]). Note Cargate Lane, a much bigger, wider road has had signs on it saying "Not Suitable
For HGVs".

As a related point on one our outbuildings (a typical Norfolk clay lump building) faces directly onto [redacted] at its narrowest point and there is every possibility that the hugely wide HGVs that will be using [redacted] will hit and damage the building.

If the scheme goes ahead access to the site both during construction and thereafter should be via
Broaden Lane.

As for the farm track, it is currently a narrow, muddy, countryside track. For use as a construction access point it will no doubt need widening, metalling and for mature trees to be felled (within the conservation area) for site lines onto [redacted] from rural/agricultural to industrial. This will completely change the nature of this part of [redacted] and adjoining land.

More generally it seems utterly ludicrous that the proposed “two way” route to this area of the scheme is through Saxlingham Nethergate. That road is completely unsuitable for HGVs. Such use would be a substantial hazard to all other road users (pedestrians, cyclists, motorists, etc) and most likely also properties close to the route.

2. Disturbance: There will be substantial noise disturbance and pollution impact to our property during (and potentially after) construction. If the scheme goes ahead working and delivery hours should be restricted to 8am to 5pm Monday to Friday. Also all footpaths should be kept open during construction and not closed just to make life easier for East Pye.

3. Landscape/Visual Impact/Amenity loss: The visual impact upon attractive countryside from acre upon acre of panels, fencing, roadways and cameras will be huge. The loss of amenity will be substantial. As explained above, we moved to [redacted] because it is in a lovely tranquil pastoral setting, it will completely change our enjoyment of the property to have to look at walk through corridors of wire fencing, cameras and 4m+ high panels.

4. Ecology: We have spent 16 years building/developing a wildlife haven in our garden. In this respect, there is a pond at the back of our garden which has Great Crested Newts in it (we have photographic evidence) and having an industrial complex so close, not to mention construction traffic and a construction site so close, is clearly inappropriate. East Pye have also never visited the site to carry out an ecological survey, which makes you wonder how seriously they take ecological issues.



20260303 - Personal Impact Statement - Saxlingham Nethergate – [redacted]

Personal Impact Statement of East Pye Solar Project

[redacted]

[redacted]

Impact on house structure.

Church Hill and surrounding areas lie within a historically sensitive landscape, with Saxon and medieval significance. Heavy goods vehicle routing via narrow rural roads close to heritage properties could cause significant and irreparable damage.

Given the proposed tonnage of the vehicles (150-200 tonnes for the abnormal indivisible loads (AIL)), the fact that we are within one meter of the road, and that our house is over 400 years old, is a timber frame with no foundations and listed, we are deeply concerned on the impact this will have the structure of our property. It was not built to withstand this kind of sustained structural strain.

This property is an essential part of the character and history of Saxlingham Nethergate and should be protected at all costs. [redacted], it retains many features such as stained-glass windows donated during the local church renovations in the 1800's, potentially dating back many hundreds of years. Given its significance, a photograph of the house appears on the front [redacted] and the property is mentioned in several historical publications.

Impact on the soil and infrastructure surrounding the property.

These include water supplies, drains, electricity cables and overhead internet cables servicing our home.

Construction traffic disturbance.

The main bedrooms of the property are at ground-level and only a few feet from the road.

The first-floor bedroom window also looks directly onto the road below. It is noted on the East Pye website that "Where practicable, construction deliveries will be coordinated to avoid HGV movements during the traditional AM peak hour (08:00-09:00) and PM peak hour (17:00-18:00)." This suggests that as well as having the usual noise from peak time traffic, we will also be expected to endure construction traffic disturbance outside of these hours, such as during the day, evenings and weekends. This totally destroys the peace and tranquillity

which we consider a core reason for choosing to live here. Traffic requirements are yet again being above the well-being of the local community.

Added to that, if this proposal goes ahead, heavy construction traffic will be passing within a few feet of all our bedrooms. Not only will this affect our ability to sleep, the stress and anxiety caused by this amount of heavy traffic passing by so closely while we sleep, and the potential dangers, will have a significant impact on our mental and physical wellbeing.

Unsafe exit and entry to the property.

Given that we are directly on the proposed AIL and HGV route, reduced safety is likely to be highly significant. Already the volume and speed of traffic have increased significantly in the time we have lived here. Additionally, if the highway is altered, there will be no requirement for vehicles to reduce their speed in order to pass the oncoming traffic. Exiting onto the highway will become perilous. Removing pavements and verges to widen the highway in order to accommodate AIL's will further remove any safe pedestrian route to our home, making accessing our property on foot both dangerous and difficult.

Property value and saleability.

In early 2025, we made the decision to move house, (but to stay in Saxlingham Nethergate) due to a need to reduce our maintenance costs, energy costs, obtain a larger garden, and provide more off-road parking for vehicles and visitors to our property. Since the announcement of the East Pye Solar, our property has becoming increasingly unsaleable and less appealing to buyers. Until the application is either refused planning permission or, if granted, completed, which may take many years due to grid connection availability, we are trapped in a property that has become unsuitable for our needs, and exceeds our planned expenditure at this stage of our lives. Additionally, loss of property value limits our choices in obtaining a new property elsewhere.

Additionally, prospective buyers who may have been attracted to a rural, countryside property surrounded by wildlife and country walks, will no longer consider Saxlingham Nethergate a suitable option.

Safeguarding of school children and other pedestrians.

The pavements around the village are already incredibly narrow in places. It is just not safe to have large construction traffic navigating bends and rural roads where pedestrians are using these narrow highways.

Impact on the local environment.

We regularly walk and exercise in the surrounding countryside. This will become limited if this proposal goes ahead, affecting my physical and mental wellbeing.

Additionally, this proposal would have a major impact on the wildlife and nature in the area, restricting movement of a number of species. This area is a vibrant, natural environment and this project is nothing more than environmental vandalism which will destroy ours and natures habitat for generations. All of which causes me huge distress.

Financial impact and earning capacity.

Based on previous case studies from Cleve Hill in Kent, https://stopeastparkenergy.com/anightmare-the-grim-reality-of-living-next-to-a-mega-solar-building-site/ the noise and disturbance will likely impact my ability to work, as well as affecting my mental and physical health, which will have further knock-on effects on my financial situation.

Impact on way of life.

Much of the village is a conservation area and listed. The East Pye Solar Plan threatens our sense of community and the future we have worked hard to build.

Impact on my mental health and anxiety levels.

Since learning about the East Pye Solar Initiative I have been deeply concerned, depressed and anxious about what the future holds for the remainder of our lifetime.

20260224 - Personal Impact Statement - Topcroft – [redacted]

My name Is [redacted], I was born and raised in Shotesham until I got married and moved to Topcroft. I have lived in the area affected by the proposals my entire life [redacted]) and am particularly familiar with the local area and landscape.

This has changed over the years, as all things should, with more houses, buildings etc. but the character of the area has not been destroyed. The East Pye Solar Development will change this, dramatically altering not only the local landscape but the rural feel of the area and all but eradicating the local character. This is open rolling hills and deep valleys which is a rare commodity in Norfolk, particularly with how unspoilt it currently is.

Hence, I feel I must write this statement to lodge my strong objections to the proposals and to take the opportunity to explain not only how it will affect me personally, but how I feel it will permanently and negatively affect all local residents and seasonal visitors alike.

The development will be visible to me from every access to my village. It will line all my usual routes in and out of the village, impacting every journey I make in my daily life and every opportunity I have to enjoy the area in which I live, whether that be waking, cycling or riding my horses. This will negatively impact my mood and wellbeing as it will that of all local residents. South Norfolk District Council place a great deal of emphasis on the benefits of amenity and biodiversity within the Greater Norwich Local Plan and SPD policies, as does Norfolk County Council and National Planning Policy (paras 135 and 137). Paragraph 138 of the GNLP states that;

'Achieving sustainable development is at the heart of the planning system. This means striving to meet social, economic, and environmental needs to provide a good quality of life for existing and future generations'

The proposals will disproportionately affect the ability of everyone, residents and visitors alike, to enjoy the local area and cause irreparable damage to the associated amenity value. This goes against the above statement and the ethos of healthy and sustainable development.

I love seeing the open fields which, given the undulating hilly nature of the area, allow long-ranging views of the local countryside as supported by the South Norfolk Landscape Susceptibility SPD. Observing the landscape changing with the season and the farming year has dictated the local character of the area for as long as I can remember. South Norfolk Council have a number of policies aimed at protecting the character of the local area and the views it provides such as those contained within the South Norfolk Place-Making Guide SPD and Policy 2 of the GNLP among others. Norfolk County Council and National Planning Policy also contain several policies aimed at preserving and enhancing the local landscape character and views. I have seen no satisfactory evidence that the immense harm a development project such as this will do to the local character has been appropriately assessed or mitigated. The proposed hedging designed to screen the solar panels from surrounding areas for example will only work if you are stood right next to the hedges themselves and only then during summer months. The expansive views which define the overarching character of the area along

with its agricultural nature will remain irreversibly damaged as a result of the development. This is contrary to the aims of all levels of planning policy.

I am also incredibly concerned about the developments effect on the wildlife of the local area. Given the highly rural nature of the area the local ecosystem is virtually unspoilt by human intervention with many endangered species, insects and habitats present both within the area earmarked for development and the local area. I am concerned how the removal of so many fields, including areas managed for ecological benefit in accordance with the governments sustainable farming practices, will affect grazing and reduce existing habitats and meadows, essential for both insect and small animal life. How the inherent glare generated from the panels will affect local and migrating bird life and how effectively closing off large areas of the landscape will disrupt foraging and migration patterns. I have personally been following a herd of between 30-50 Red Deer (depending on the time of year) who have a migration route through Topcroft and have taken great joy from watching them grow and thrive.

The development area includes a number of mature oak trees which are marked as to be removed. I'm sure someone will propose they will be replaced; however, these replacements will take many decades to effectively offset the biodiversity losses of these mature trees. It's not just a case of removing an old tree and replacing with another young one somewhere else, some of these trees are hundreds of years old.

The root system of trees and hedges not only absorb water they help to maintain the integrity of the land and soil system. They provided a semi-permeable barrier which acts as a wind break in fierce winds and snow, significantly reducing the effects of strong winds, protecting both plants and property as well as wildlife.

South Norfolk Council has a number of policies including the emerging Greater Norwich Green Infrastructure Strategy Supplementary Planning Document (SPD) and the GNLP Policy 3 Environmental Protection and Enhancement aimed at protecting biodiversity and National policy has recently been amended to ensure biodiversity net gains are a part of every planning application (NPPF paras 187 – 201). Given the above, I believe these proposals are in contravention of all of these policies and the ethos behind them. The land take of the development alone will cause serious and irreparable harm to valued local ecosystems.

Norfolk is also an agricultural area, growing crops like barley, wheat and sugar beet to name but a few. These crops have been grown successfully in this area for centuries and form an important part of the local economy and food supply chain. Norfolk has some of the best agricultural land in the country, removing so much of it and effectively sterilising it against future food production, by introducing underground utilities and shading the soil for so many years, will increase further the pressure on food production both locally and nationally. We only have so many areas of fertile agricultural land left for growing food and if this land is no longer agricultural, where will these crops be grown?

Flooding is an increasing problem is all areas of the UK. We currently benefit locally from natural "helper" vegetation such as hedgerows which reduce erosion and slow floodwater and mature trees such as Oaks who need 10 to 15 gallons of water a week. Agricultural practices also increase water uptake and increase

ground cover, reducing the volume of flooding and slowing flows whilst also acting to reduce erosion and flooding impacts downstream. The proposed development will act to concentrate rainfall in multiple runnels between each row of panels, whilst effectively starving the soil beneath them from rainfall. This will have devastating effects locally, increasing the speed of flooding and the level of erosion, whilst also creating areas of rain shadowed soil where little to no plant growth will allow dry compacted earth to be easily eroded by wind. South Norfolk and North Norfolk Councils both have extensive policy regarding the effective management of flood risk (GNLP Policy 3, Development Management Policies Document) as does national policy (NPPF Paragraph 170 – 182). I believe the proposals are in contravention of these policies and have not provided sufficient mitigation, management or justification for going against them.

Developers would lead us to believe that solar farms are quiet, yet the inverters, transformers and general maintenance of all the equipment will certainly act to increase noise. I am specifically concerned about the constant low level background noise, which will be particularly noticeable is the quiet rural landscape as defined by the South Norfolk Landscape Susceptibility SPD. This will be particularly difficult to mitigate given the open natural nature of the local landscape and will be especially detrimental to the health and enjoyment of local residents, due to its incessant nature.

The development will also increase traffic, particularly of a HGV nature, which will lead to increased noise and pollution.

As touched upon above the glare from the panels may potentially impact passing traffic leading to increased accidents on the narrow and often winding country lanes surrounding the development. There are also flight paths across South Norfolk, with Norwich Airport themselves regularly objecting to planning proposals on the grounds of increased glare and safety concerns for pilots. The RAF and American Air Force also regularly carry out day and night training exercises over the area proposed for the solar farm. I have not seen any assessment of the glare risk to overhead aviation and therefore have concerns this has not been adequately assessed.

I also understand the electricity produced by these panels is partly for the new homes being built at Long Stratton, it is SNDC policy for developments over 10 houses to have 10% of homes with solar panels which begs the question of why this development is needed? The area of countryside which has been lost to provide the housing mentioned has already caused harm to the local environment. Is it necessary to compound this further with an oversized solar farm? It would seem from my layman’s perspective that local residents and the local landscape are being asked to suffer the consequences and live with the long term effects of energy generation which will be fed into the national grid for use elsewhere, without reaping any of the benefits.

My MP has led me to believe the reason that all new houses do not have solar panels is that they cannot be built quick enough to satisfy the Governments targets for net zero. But a new housing development is built much quicker with less devastation than this proposal. And yes, I understand housing development will not produce as much energy, but the number of new houses that do not have

solar panels would have reduced the need and scale of the proposed solar farm would it not? Micro scale generation is also inherently more sustainable and requires less investment and maintenance as strategic scale infrastructure is not needed and the upkeep rests with the householder.

We are led to believe these solar panels are to produce energy to contribute to “Net Zero” yet all the heavy machinery, lorries, cables etc. that is needed for this brand new “development” contradicts that.

The proposals include blocking access to footpaths locally. If a footpath is blocked, there will be complaints to the Local Highways Agency, who will be tasked with investigating and prosecuting. People love to walk in the Countryside as it is good for mind, body and soul. Which is why so many were thankful when “The "Right to Roam" in England was entered into law. This is primarily governed by the Countryside and Rights of Way Act 2000, which allows public access to certain types of land for recreational purposes. The Ramblers Association has between 100k and 143k members, all people who love to walk in the Countryside. If you then add in all those who like to walk, run, and jog the figures are much, much higher. Many of the villages in this area organize walks through the countryside during the summer months. This will not happen if rights of way are closed or re-directed around unsightly solar panels, denying many who not only gain exercise from these walks but companionship, conversation and social interaction.

Some people love to live in noisy, bustling areas, I don’t, it’s not me, it makes me tense and nervous, I need peace, quiet, wildlife and serenity for my mental and physical wellbeing, which is why I chose to live where I do.

The most awful thing is that most won’t realise the dreadful, horrific full consequences of the proposed solar development until its too late.

Yours



20260224 - Personal Impact Statement – Tharston - [redacted]

Personal impact statement

[redacted]

I have lived in South Norfolk since 1994, to begin with in a small farm labourers cottage in Wacton Village, then in several of the villages including Newton Flotman, Mulbarton and now Tharston. On my mother's side my family's roots lie deep in the countryside of South Norfolk. My grandmother being born in Banham and her father an agricultural farm labourer. My great grandparents and great great grandparents are resting in the cemetery at Cuffer Lane, New Buckenham.

I grew up in North London however, I frequently visited South Norfolk as as child where I grew to love and appreciate it's wide open views and breathtaking large and dramatic skies. I have memories of home made country wines shared amongst my relatives at our family get togethers. On holidays here my mother and grandmother taught me about the wildflowers of the hedgerows and my father took me on walks through the charming country lanes and woods pointing out red squirrels (now outcast by greys) and naming birds for me and teaching me about the British countryside.

I am a [redacted] and have had the privilege of working for 47 years mainly in the [redacted]. I completed my training in [redacted] . I spent several years gaining experience and I have also lived and worked in Newcastle Upon Tyne. I moved to South Norfolk because, after saving hard, property prices were accessible to a single salary [redacted] and my family and roots were here in the beautiful countryside. I had dreamt of living simply in the countryside for most of my life. When I found the cottage by the [redacted] my dream had come true and I wrapped myself up in everything good that living the countryside of South Norfolk has brought to my heart, mind and soul.

Living here in the charming countryside of South Norfolk has been my source of comfort and solace bringing a feeling of well being that I could not find living in a city, particularly because of the stresses that the role [redacted] can bring together with the constant noise, urban landscapes and travelling to and from work in the inner city.

When I first came to live here I worked at [redacted], now known as the [redacted] and after that I worked as [redacted] based in Poringland. I covered a large area of South Norfolk's villages [redacted] there including Long Stratton, Mulbarton, Swainsthorpe, Foxhole, Saxlingham, Seething, Brooke, Rockland St Mary, Newton Flotman, Shotesham, Stoke Holy Cross, and Hempnall to name but a few. You see I know the beauty and charm of the area with it's single track narrow lanes that I navigated on my way [redacted].

On my time off I walked and enjoyed what the countryside here has to offer. I love the majestic veteran and ancient oaks, home to thousands of species, that tower above the cowslips, snowdrops, and wild primroses that fill the ditches in early spring. Celendines and violets bloom at the base of the trees and wild orchids can be found along the banks of the Tas River. I love to watch the hares in March boxing and chasing in the open fields between Hempnall and Woodton.. I pass badger's sets on my walks near Arminghall and watch small herds of deer crossing from field to wood. Raptors, bats and owls hunt over the fields and hedgerows and woodland birds such as long tailed tits fly between the hedgerows in family groups.

The view's across the Tas valley to ancient churches dating back to Anglo Saxon times are special and unique as are the many characterful aged buildings rural in character and setting that make this area of South Norfolk and England a place of outstanding and unparalleled beauty.

After my [redacted] rol [redacted] orleston on Sea. Those years included the Covid 19 pandemic and all the trauma and sadness that experience brought to us all. Fortunately for me and as we were instructed to "stay local" I was able to get out and walk in the countryside here. I discovered more of the special beauty along the wonderful footpaths that criss cross the area. I walked many sections of Boudicca Way especially when we were allowed to have an exercise partner. Having this wonderful place to walk in saved me from becoming overwhelmed and depressed by the awful situations at work that I faced [redacted]. I lived alone and together with my exercise partner our walks in the countryside and observations of wildlife in this special area kept my sanity. I continued [redacted] without a day of sickness and I really believe that it was because this place gave me the perspective on life I needed then to keep going.

I will say to you that I am deeply concerned about the effects of climate change and I can see the need for alternative energy sources. I believe that solar panels have a place in the energy equation but not on prime quality farmland or in the beautiful British countryside. Their place is on roofs, on warehouses, car parks and factories. In my heart and soul I am devastated to think that East Pye Solar will be destroying the beauty and uniqueness of this area of South Norfolk. My well being is negatively impacted by the thought of the industrialisation of this area. Where there were once beautiful open views and skies there will be black scapes, wire fencing, lights and cctv cameras.
So abhorrent.

My house value will drop and I will be unable to move away from this industrialised area as other areas unaffected by this mass industrialisation will become refuges away from this blight. Property prices there will rise due to demand and where does that leave someone like me? [redacted] of working hard, saving and achieving my dream of living in the South Norfolk countryside will be gone from me for the remainder of my lifetime.

Noise and disruption, damage to the lanes and routes will have a negative impact on my daily life. The road and walking routes I use will become inaccessible and blighted by views of fencing, substations, solar panels, batteries, lights and cctv. I believe that this is an act of greed without any concern for the people who live so close to this industrial mega solar farm.

It is difficult to fully express how devastating this will be for me. I have a deep and organic love of the countryside. East Pye Solar have ruined a large part of my life and my well being since I first learnt of their project.

20250204 - Personal Impact Statement - Brooke - [redacted]

My name is [redacted] and I am submitting this statement to outline the personal impact that the proposed East Pye Solar Farm would have on me.

The solar farm would dominate the land all around where I live, so that every journey out from my village would be impacted by large solar panels, fencing and infrastructure, significantly altering the area in which I live. It would effectively turn the local rural environment into an industrial one.

Much productive agricultural land would be lost by this development, reducing our food security and damaging the rural environment.

Although solar farms are often described as quiet by their developers, the investors, transformers and maintenance activities generate noise that will affect local residents and visitors to the area. Glint and glare from the solar panels could impact my residence, road users and the local airfield.

Construction of these huge areas of solar panels will undoubtedly disturb habitats, restrict animal movement and reduce biodiversity.

The construction phase would bring heavy vehicles, noise, dust and disruption to local roads. This would affect my ability to travel safely.

Living so close to an industrial-scale solar farm would cause me mental distress and a strong sense of loss of a peaceful rural environment.

Several renewable energy developments have already been proposed or approved
in the wider area. The cumulative effect of these projects risks transforming the rural landscape in Norfolk into an area dominated by industrial development. This is not a sustainable or a balanced approach.

For the reasons above, I strongly request that this application be refused.

Thank you.

Kind regards.

[redacted]

20251106 - Personal Impact Statement - Hempnall – [redacted]

[redacted]

Personal impact statement [redacted] site 3

To say my wellbeing is almost entirely derived from living in the peace and beauty of the countryside is no exaggeration.

This nightmare of the prospect of EPS has kept me awake at night, reduced me to tears and is already causing me depression and anxiety.

If this scheme goes ahead it will be the destruction of everything I have ever worked for and valued, [redacted] of effort down the drain of working to fulfil my dream of living in the countryside, I will not want to live here anymore, let alone walk it's footpaths, and because it is unlikely anyone else will want to either, we will become prisoners in a nightmarish prison compound landscape no one, including myself will want to venture out in.

If you think this is an exaggeration picture this outside our home, 100's of 3.5 and 4.5 meter metal high solar panels, inverters, battery storage units, sub stations, and access roads all encased in high deer proof fencing dotted with

security cameras and hazard warning signs, each panel will have fans to cool them in hot weather, so we'll have the joy of listening 100's of them going off in hot weather, not to mention the motors on tracking panels and the hum inverters make when it is powered to the maximum, some fields will have movement sensor floodlights at night, none of the footpaths around Hempnall will be unaffected, some will be grim corridors of wire metal and glass with hazard warning signs with no views but metal, glass and wire to look at, our sense of being in the countryside obliterated. Screening will be ineffective for at least a decade, if ever.

The scale of this is so huge we will have to drive for miles to find a bit of open countryside to walk our dog, and even then, the threat that the few fields left will disappear will leave me feeling angry and fearful.

I am already depressed at the potential loss of our beautiful countryside and [redacted], but if this goes ahead and the diggers move in I will be beyond despair, it won't be just the noise invading our home and disruption on our roads during construction that will send me in a downwards spiral, it will be the fact of knowing this government is riding roughshod over us and our countryside, knowing it will knock tens of thousands of pounds off the value of our home with no compensation, knowing it will have negligible effect on global warming, will not be a benefit to Norfolk or arguably even the UK,

This is not something I can live with without it seriously impacting on my mental health.

This will in short, ruin my life and there will be no way out.

20251120 - Personal Impact Statement - Tivetshall - [redacted]

Personal Local Impact Statement: Objection to Proposed Solar Development at Tivetshall

Date: November 20, 2025

From: [redacted]

This statement outlines my strong objection to the proposed solar energy development, including the associated Battery Energy Storage System (BESS), at East Pye, based on the profound and unacceptable impacts this scheme will have on my quality of life, the local environment, and the long-term safety of my community and home.

1. Irreversible Impact on Quality of Life and Landscape Character

The proposed industrial-scale development, occupying 6,500acres, represents an irreversible industrialisation of our cherished rural environment.

a. Loss of Rural Amenity and Way of Life

As a resident of Tivetshall, my quality of life is deeply connected to the tranquillity of this area, defined by low ambient noise and dark night skies. My ability to enjoy this setting will be destroyed:

- **Dog Walking and Recreation:** I rely on our current quiet rural lanes and footpaths for safe and stress-free dog walking and for observing local wildlife (as part of my hobby as an amateur photographer), such as local deer, hare's & rabbit's, owls, birds of prey, woodpeckers as well as numerous migrating birds that visit the area. The inevitable increase in heavy construction traffic (HGV movements) and future operational traffic will immediately render these lanes unsafe for myself and my dogs and destroy their recreational value for the next 40 years.
- **Loss of Tranquillity:** The visual intrusion of hundreds of acres of black panels and high security fencing, coupled with the constant operational noise (see Section 3), will irrevocably destroy the peaceful character of the area, replacing the beauty of the countryside with an intrusive industrial infrastructure.
- **Deterioration of Mental Wellbeing:** Scientific evidence highlights the significant mental health benefits derived from connecting with nature and accessible open green spaces. The destruction of our immediate, accessible rural landscape and its replacement with a fenced, industrial site will remove a vital source of stress relief and outdoor engagement, resulting in a demonstrable negative impact on the mental wellbeing and health of residents.

b. Destruction of Countryside for Future Generations

The sheer scale of this development effectively sterilises this land for the lifetime of the project. This proposal sacrifices prime agricultural/rural land for temporary energy production, fundamentally changing the landscape character of our village. This destruction of the rural visual amenity cannot be mitigated by planting perimeter hedgerows; the visual impact from elevation and public rights of way will remain devastating and permanent for multiple generations.

2. Environmental and Ecological Degradation

While the development is promoted as environmentally beneficial, the local impact on biodiversity and existing ecology is demonstrably negative.

- **Habitat Fragmentation:** The construction process, followed by the installation of extensive security fencing, will sever existing wildlife corridors. This fragmentation will inhibit the movement of local mammals (such as deer and badgers) and disrupt the feeding and breeding patterns of ground-nesting birds and invertebrates.
- **Altered Microclimates:** The large expanses of panels create microclimates through constant shade and altered rainfall runoff patterns. This can impact soil ecology and disadvantage native plant species that thrive in direct sunlight, thereby reducing the diversity of local flora.
- **Loss of Observation Points:** The high security fencing, combined with intrusive CCTV poles, will prevent residents from enjoying and observing local wildlife, which currently contributes significantly to community wellbeing and environmental awareness.

3. Noise and Light Pollution

The operational phase of the solar farm, particularly the BESS, will introduce new, persistent sources of noise pollution incompatible with a rural setting.

- **Noise Pollution from Inverters and Transformers:** Solar energy conversion requires inverters and transformers which generate a continuous, low-frequency tonal hum (typically 120Hz and its harmonics). In a quiet rural area with low ambient background noise, this hum, particularly when cooling fans operate under peak load, can become highly intrusive and cause significant annoyance to nearby residents, affecting sleep and general wellbeing.
- **Nighttime Noise from BESS:** Unlike the solar panels, the Battery Energy Storage System (BESS) must operate and cool 24/7. This means the associated cooling systems and HVAC units will introduce continuous, audible noise, violating the nocturnal tranquillity of the area.
- **Light Pollution:** Although panels themselves do not emit light, the mandatory security lighting and CCTV systems required for a BESS

compound will generate light spill, disrupting the dark sky amenity enjoyed by residents and negatively impacting nocturnal wildlife.

4. Unacceptable Safety and Hazard Risks

The inclusion of the Battery Energy Storage System (BESS) introduces catastrophic safety risks that are unacceptable in close proximity to residential areas and local infrastructure.

A. Catastrophic Fire, Explosion, and Runaway Risk from Battery Storage

The BESS uses lithium-ion technology, which is highly susceptible to a catastrophic failure mode known as thermal runaway. This process begins with an internal short or fault, creating a violent, self-sustaining chain reaction where internal heat causes rapid, uncontrolled cell-to-cell failure, escalating into an intense, deep-seated fire and potential explosion.

- **Extreme Hazard:** This runaway fire risk is not hypothetical. It leads to the instantaneous release of highly toxic and flammable gases (e.g., hydrogen fluoride, carbon monoxide).
- **Toxic Fumes:** A BESS fire produces a vast plume of corrosive and toxic gas, posing an immediate and severe threat to the health of residents, emergency responders, and livestock, especially considering the prevailing wind directions.
- **Deep-Seated Fire and Reignition Risk:** BESS fires are notoriously difficult to extinguish, requiring enormous volumes of water for cooling and sometimes reigniting days or even weeks later due to residual "stranded energy." The local emergency services may not be adequately equipped or resourced to handle an incident of this scale and complexity.

B. Increased Flood Risk and Groundwater Contamination

The large, impermeable surfaces created by thousands of solar panels alter natural drainage patterns, increasing surface water runoff and the likelihood of flash flooding in surrounding areas.

Furthermore, in the event of a BESS fire, the large volumes of water required for suppression create significant environmental hazards:

- **Critical Threat to Drinking Water (Norfolk Aquifer):** It is critical to note that **our local water supply in Norfolk is drawn from the underlying groundwater aquifer.** If a BESS fire occurs, the firefighting water becomes highly contaminated with toxic electrolytes, heavy metals, and corrosive residue.
- **Irreversible Groundwater Pollution:** Without robust, proven containment infrastructure (bunding and pollution control devices) that

can handle a catastrophe of this magnitude, this toxic runoff will inevitably penetrate the ground and contaminate our sole source of drinking water, resulting in catastrophic and long-term ecological and public health damage.

Conclusion

The proposed solar and BESS development poses an unacceptable level of risk and detriment to this community. The industrial scale of the project will fundamentally and irreversibly destroy the unique rural character, tranquillity, and recreational amenity enjoyed by myself and my family, which constitutes a severe impact on our quality of life and mental wellbeing. Combined with the severe, unmitigable fire and environmental contamination risks posed by the BESS, particularly the threat to the crucial Norfolk groundwater aquifer, this development is entirely inappropriate for its proposed location.

I urge the Committee to reject this proposal in its current form to protect our local heritage, environment, and the safety of all residents.

Kind regards,



20260210 - Personal Impact Statement - Fritton - [redacted]

Effects of Proposed East Pye Solar Farm.

My name is [redacted]. I am submitting this statement in order to outline the personal impact that the proposed East Pye Solar Farm, located within [redacted] of my home, would have on my daily life, wellbeing, and the character of the area in which I live.

I moved to this area 14 years ago, in order to enjoy the local rural environment, peacefulness and quality of life it provides. At the time of moving to the area, I contacted Norfolk County Council Planning Department and was advised that no development was feasible, as the area surrounding my property was outside any development window, it being rural agricultural land and so I have expected that to remain the case.

1. Impact on Landscape and Visual Impact.

The proximity of the solar installations within [redacted] of my home and an electricity sub-station within [redacted] of my home, means that the development will dominate the immediate landscape outside the windows of my house. The sub-station will be on high ground that the East Pye Project Manager has agreed that it will be difficult to screen. Currently I look out on a rural landscape and enjoy watching the daily presence of many large mammals and raptors, etc, on the fields neighbouring my property. I walk the local footpaths in order to remain healthy and as I know that contact with natural surroundings assists with maintaining my mental health. I have previously lived in built up areas and know that the threat of the rural scenery being replaced by large solar panels, fencing and infrastructure will cause me serious mental health problems. The change of land use from rural to industrial with fencing and cctv cameras, will leave me feeling confined, overlooked and destroy my enjoyment of the peaceful character of the area.

2. Loss of Agricultural Land and Amenity.

The land opposite my house is currently productive agricultural land and is classified as best and most versatile land. It has been used to grow crops for the entire time that I have lived here and is used by local enthusiasts for shooting, metal detecting and bird watching. To take such a large acreage of good farmland out of food production at this time, will diminish the ability and need for Britain to have "food security", as outlined by many Government Departments.

The development will effect the lands drainage. As the land feeds the headwaters of the River Tas, changes in drainage pattern could significantly impact this unique and internationally important chalk stream.

The area known as Site 5, has several footpaths that cross it. Norfolk County Council have previously invested in publicising the amenity value of these and other local footpaths with walkers and horse riders taking advantage of the rural landscape afforded by the paths. That amenity will be lost if the proposals go ahead as I and others in my family will not wish to walk beside and between fences as we will feel trapped and unsafe, despite cctv provision which will simultaneously intrude on our privacy whilst exercising.

3. Noise, Glare and Disturbance

I am seriously concerned about the noise and disturbance that will occur with the construction of a sub-station and panels so close to my home.

I have seen proposals that the site will be open from 7:00 in the morning and deliveries of equipment etc will take place at night to avoid traffic problems. The impact on my sleeping pattern and enjoyment of my property will be severely impacted by the on going construction activity given how near the site is to my house and the aforesaid inability of East Pye to provide screening and sound baffling.

I am also concerned by the distinct possibility that glare and glint from the panels will cause issues for me inside my house, in my garden and for road users.

I am considerably worried that given the proximity of transformers, inverters and machinery, life in and around my house will become untenable. The present near silence stands to be replaced by an electrical hum and background noises that will disturb my mental health.

4. Impact on Wildlife and Biodiversity

The fields opposite my home (Site 5) and the surrounding area supports a huge variety of wildlife, plants and micro organisms.

I regularly see three species of Deer, Hares, Rabbits, Owls, Red Kites, Buzzards, Crows, Rooks, and a multitude of smaller species. There are always Bats and Swallows dipping over the fields in summer months and there have been visits from Oyster Catchers, Lapwing and even Otters.

I discussed at length with East Pye, what might be done to ensure that this bio-diversity would continue given that the Site would be surrounded by deer proof fencing to exclude larger mammals, and was told that there would be bio-diversity within the soil which would offset the loss of these creatures. There is currently enormous bio-diversity in the soil made richer by the

application of manure, which will of course also cease, causing further issues around where the surplus will go. Another environmental potential hazard?

From my personal perspective, excluding animals from fields and building an electricity sub-station, will never increase bio-diversity, it is ridiculous to pretend that such an industrial installation acts as an improvement to bio-diversity.

5. Traffic and Construction Disruption

The construction phase, would bring heavy vehicles, noise, congestion, dust and damage to local road surfaces. There are many ancient Oak Trees lining the B1527 and I imagine that these would either need to be removed or they will be damaged when larger equipment, transformers etc, are transported along that

road. That would be a huge loss to the environment. The volume of solar panel deliveries alone will cause a major impact on local road infrastructure.

[redacted], outside my house, will likely become a rat-run for traffic seeking to avoid delays and this will impact on noise and danger to the occupants of my house.

If the proposals proceed, my ability to access the A140 and B1332 via the B1527 are inevitably likely to be impaired by delays etc..

Noise from traffic and late delivery of materials and arrival/departure of the workforce will also impact my property due to its proximity to Site 5.

6. Emotional and Well Being Impact

I chose my property because after[redacted], I needed to find a peaceful, tranquil area to live. If an industrial scale solar farm and sub -station is built in such close proximity to my house, I will suffer mental health problems without doubt. No form of mitagation will prevent that from occurring. My ability to relax, enjoy my garden, walk local footpaths and enjoy the natural world, or even sleep will be totally disrupted, 24 hours per day. I cannot contemplate moving at my age, and so the impact of the proposals should the solar farm go ahead, will be catastrophic to me.

7. Overall Impact

The East Pye Proposals cover over 2700 acres of agricultural land in the area I live. I have studied the plan of the area and there will be no way out from my house, where I will not have to see industrial scale solar panels and associated hardware.

I moved to a rural agricultural area and I will find myself in an industrialised landscape.

There are proposals to cover further areas of South Norfolk with similar installations which will make the entire area a patchwork of fields of glass and fencing. It will be displeasing aesthetically but it will also become an area requiring constant maintenance, cctv cameras and fencing. I will have an overwhelming personal sense of loss and despair.

Although I support efforts to improve our green energy requirements, the East Pye proposals are disproportionate and do not take into account the impact on my personal, life or well being.

The proposals are paradoxical to the Government imploring farmers to produce more British grown food, as they will take the 2700 acres of land, out of production, which is ridiculous.

The solar panels are imported, worsening Britains trade gap and cannot be recycled easily, which causes problems with removal in the future.

East Pye's own consultation team agreed with me that tidal power was a far more reliable and sustainable form of green electricity generation than solar power.

In view of all reasons stated above, I respectfully request that the application be refused or reconsidered.

Submitted by.....

[redacted]

10th February 2026

20260211 - Personal Impact statement - Morningthorpe - [redacted]

Address: [redacted]

Effects of proposed East Pye Solar Farm

My name is [redacted] and I am submitting this statement to outline the personal impact that the proposed East Pye Solar Farm approximately located [redacted] and the search corridor located approximately [redacted] from my home, would have on my daily life, my families life, wellbeing, and the character of the area in which we live. My family and I moved to this area due to its tranquillity and quality of life 6 years ago and expected this to remain as it has been. We purchased here as this was to be our for forever home and the place to have a growing family and provide generational living for our elderly and retired parents.

1. Impact on Landscape and visual Amenity

The proximity of the Solar Farm approximately located [redacted] and the search corridor located approximately [redacted] from my home means the development would dominate the immediate landscape in the area. The current natural rural scenery that we enjoy on a daily basis whilst walking in the area, would be replaced by large solar panels, fencing, and infrastructure, significantly altering the visual amenity where we live. This industrial change would diminish our enjoyment of the outdoors and the peaceful character of the area.

2. Loss of agricultural Land

The land designated for the solar farm is currently productive agricultural land classified as best and the most versatile land. It's loss reduces local food-growing capacity and changes the traditional use of the countryside. As someone who values the agricultural heritage of this area, we are concerned about the long-term shift away from farming and the cumulative effect of multiple such developments. This proposal will undoubtedly cause irreversible damage and change to soils and the land character.

3. Noise, Glare, and Disturbance

Although solar farms are often described as quiet by the developers, the inverters, transformers, and maintenance activities generate noise that would be noticeable in what is currently a quiet rural environment. Given the close distance, this noise could affect my home life. There is also potential for glint and glare from the solar panels, which could impact both my residential amenity and local road users nearby.

4. Impact on Wildlife and Biodiversity

The area around my home supports a huge variety of wildlife including and not restricted to deer, hares, rabbits, pheasants, owls, kite, buzzards, and other birds of prey. Construction which is likely to take several years and the subsequent operation of the solar farm will undoubtedly disturb habitats, restrict animal movement, and reduce biodiversity. While mitigation measures may be proposed, they cannot fully replace the natural, undisturbed environment currently present.

5. Traffic and Construction Disruption

The construction phase would bring heavy vehicles, noise, dust and the disruption to local roads. This would affect our ability to travel safely and comfortably, particularly along The Street, Fritton and the B1527, Bungay Road, which are not designed for sustained heavy vehicle use. These are also roads we regularly travel for our commute to work and nursery pick up and drop offs.

6. Emotional and Wellbeing Impact

Living so close to an industrial-scale solar farm will undoubtedly cause me and my family stress and a sense of loss. We deliberately moved to this area for the peaceful rural environment that currently exists for our young family. If the proposed solar farm receives planning approval the area surrounding us which we rely on for relaxation, recreation, and the connection to nature would be significantly diminished, impacting our mental wellbeing.

7. Cumulative Impact

Several renewable energy developments have already been proposed or approved in the wider area. The cumulative effect of these projects risks transforming the rural landscape in Norfolk into a patchwork of industrial installations. This is not a sustainable or balanced approach to meeting energy needs.

We support renewable energy in principle, but developments must be appropriately located and proportionate. In this case, the scale, siting and close proximity of the proposed East Pye Solar Farm would have significant negative effect on our daily life, the landscape, and the character of the area. For these reasons, we respectfully request that the application be reconsidered or refused.

Yours sincerely,

[redacted]

20260211 - Personal Impact Statement - Woodton - [redacted]

Personal Impact Statement: [redacted]

Address: [redacted]

We submit this statement to outline the personal impact the proposed East Pye Solar Farm, located approximately [redacted] from our home, would have on our daily lives, wellbeing, and the rural character of the area.

We have lived here for nearly 11 years and in a neighbouring village previously for 21 years. We chose to make our home in Woodton because of its open countryside views, tranquillity, and the quality of life that rural living provides. We value the peace, clean air, and natural surroundings — if we had wanted a busy and more urban environment, we would have chosen to live in Norwich. Our daily walks with our dog through the surrounding countryside are an important part of our routine and wellbeing, and the unspoilt landscape is central to why we live here.

Landscape and Visual Impact
At just [redacted] away, the development would dominate the landscape around our home. The rural views and natural scenery we enjoy daily for dog walking would be replaced by extensive solar arrays, fencing, and infrastructure. There is no doubt that such industrialisation will significantly harm the visual amenity and peaceful character of the area which we, and others, both seek to enjoy.

Loss of Agricultural Land
The site comprises of versatile agricultural land. Its loss would reduce local food production which we fully encourage and erode the longstanding farming character of this countryside which has been in place for many years. We therefore have grave concerns about not only the long-term and potentially irreversible impact on soil quality, but in the cumulative loss of productive farmland.

Noise, Glare and Disturbance
Despite being described as low-noise developments, solar farms generate sound from inverters, transformers, and maintenance activity. At such close proximity, this would be noticeable in what is currently a quiet rural environment. We are also concerned regarding the potential for glint and glare affecting nearby homes and road users.

Wildlife Impact
The surrounding fields support a wide range of wildlife, including deer, hares, rabbits, pheasants, owls, kites, buzzards, and other birds of prey. Construction and operation would inevitably disturb established habitats and restrict wildlife movement. Mitigation cannot fully replace the natural environment that has developed over many years.

Traffic and Safety Concerns
One of your major concerns is the volume of construction traffic which would introduce significant heavy

vehicle movements, noise, and dust to local roads which we use daily for work and family life. The already busy B1332 (Bungay to Norwich Road) is not designed for sustained heavy goods traffic and is used by regular bus and school services, with pedestrians and children waiting along limited pavements. The potential safety implications are of serious concern, and we wonder whether this has been considered?

Wellbeing and Cumulative Impact
Living in such close proximity to a large-scale industrial development would cause without a doubt considerable stress diminish the peaceful rural environment that supports ours and our family's mental wellbeing. As individuals from medical backgrounds, we understand the importance of the environment to health. Furthermore, with other renewable developments proposed or approved nearby, there is a real risk of cumulative industrialisation of the Norfolk countryside.

While we support renewable energy, any developments must be appropriately located and proportionate. Given the scale, siting, and proximity of the proposed East Pye Solar Farm, we believe it would have a significant adverse impact on our home, safety, surroundings, and family wellbeing.

For these reasons, we respectfully request that the application be reconsidered or refused.

Kind regards,
[redacted]

20260320 - PERSONAL IMPACT STATEMENT - Saxlingham Nethergate - [redacted]

The possible constuction of East Pye solar farm is causing my mental health to spiral downwards. The very thought of losing our precious countryside to an industrial landscape makes me so sad and angry
I find the idea of fertile agricultural land being permanently industrialised both perverse and intensely worrying bearing in mind the pressures of food security
I am concerned about the impact on wildlife habitats, free movement of mammals will be impossible and feeding patterns and routes will be lost forever
Pouring concrete on to green and fertile land is the very antithesis of caring for our environment- the land will never be returned to agricultural use because it will be permanently contaminated
The danger of increased flooding from impaction on the claylands soil - Saxlingham Nethergate village centre floods already with the smallest amount of rain when the water table is high, which is becoming more frequent with current weather patterns
The loss of amenity of our landscape with footpaths being disturbed and possibly re-directed/closed
Walking on footpaths surrounded by solar panels will be soul destroying
The danger from walking on pathways that are fenced in on both sides would mean that I can not enjoy the countryside as I do now
I ride regularly on our bridleways and restricted byways - it will become dangerous to do so with the increased traffic around the country lanes
If the solar panels are moving ones it will be even more dangerous to ride near them as horses will be spooked
During construction phase the movement of lorries on small country roads will disfigure the countryside permanently, which will continue when repairs and replacements are needed
Increased traffic both during construction and continuing will ruin the peacefulness of the area
The noise of construction will be heard all over the village and beyond
If the solar panels are moving ones there will be permanent noise disturbance for all residents
We currently have far reaching dark skies (for which Norfolk is well known) which will be polluted by lights on the solar fields
I want to know why our way of life is being sold out so that investment banks can make money at our expense?
PUT SOLAR ON ROOFS AND BROWNFIELD SITES - NOT ON COUNTRYSIDE
PROTECT OUR FOOD PRODUCING LAND
PROTECT OUR WILDLIFE

Kind regards
[redacted] (Chair, Saxlingham Nethergate Parish Council)

20260331 - Personal Impact Statement - Topcroft - [redacted]

My name is [redacted] and I am submitting this statement to outline the personal impact that the proposed East Pye Solar Farm would have on me.

The solar farm would dominate the land all around where I live, so that every journey out from my village would be impacted by large solar panels, fencing and infrastructure, significantly altering the area in which I live. It would effectively turn the local rural environment into an industrial one.

Much productive agricultural land would be lost by this development, reducing our food security and damaging the rural environment.

Although solar farms are often described as quiet by their developers, the investors, transformers and maintenance activities generate noise that will affect local residents and visitors to the area. Glint and glare from the solar panels could impact my residence, road users and the local airfield.

Construction of these huge areas of solar panels will undoubtedly disturb habitats, restrict animal movement and reduce biodiversity.

The construction phase would bring heavy vehicles, noise, dust and disruption to local roads. This would affect my ability to travel safely.

Living so close to an industrial-scale solar farm would cause me mental distress and a strong sense of loss of a peaceful rural environment.

Several renewable energy developments have already been proposed or approved in the wider area. The cumulative effect of these projects risks transforming the rural landscape in Norfolk into an area dominated by industrial development. This is not a sustainable or a balanced approach.

For the reasons above, I strongly request that this application be refused.

Kind regards.

[redacted]

20250204 - Personal Impact Statement - Brooke - [redacted]

I live with my husband , daughter and[redacted] Father -in-Law at , [redacted]
We will be one of the families most directly impacted by the latest solar farm proposals. Quite frankly , we are devastated in so many ways and should this terrible proposal go ahead, our life , home , community and environment will be forever and irrevocably ruined.

Firstly, industrialisation and unregulated development of open countryside and farmland (which still currently produces crop) is absolutely wrong ! It will not solve issues, only create further issues down the line. Surely, the empty shelves during COVID just demonstrate how we need to be MORE dependant on domestic food production during times of instability in the world. Taking perfectly suitable farmland and turning into sheets of glass , metal and toxic chemicals (which will eventually damage soil and end up in landfill) is NOT the way forward for 'Green living' or for our country. I am all for investigating and implementing alternative power sources IF it is genuinely going to hugely benefit our country and the environment and not just line the pockets of the greedy and politically hungry! It should also not be done at lightening speed and without a cohesive national plan ,helping us to get the most out of our limited land with minimal casualties of both wildlife, environment , food production and homes.

The way in which the government has underhandedly and undemocratically ridden rough shod over the regular planning rules to ' wave through' such proposals, without any due process or giving a genuine voice to those who will be most affected, is just a disgrace to the idea of democracy! Many of the so called NSIPs are actually Not one big submission but a chain of smaller , greedy projects linked together in order to avoid the scrutiny of the due planning process. Our home was only given permission to be built if it complied to the rules of 'a building of architectural significance' - the proposed panels will be erected only 5m from the edge of our ' architecturally significant' property.

The proposed panels will be seen from many of the windows of our home (it is a three story. House with far reaching views) at VERY close quarters, bringing not only an horrific outlook but , glare, noise of moving panels, possible future health impacts as yet unseen with this new technology, wildlife destruction , potential harm and damage to our family and property (as seen with similar solar farms during recent storms and high winds) … the list goes on !!!

On an even more personal note, our house will become unsaleable , according to some local agents and at best , will be significantly devalued. The sale of this home was to help fund our retirement . We have worked hard all our lives to buy this home and now our future feels very frightening - this is causing both myself and my husband significant stress and we are very worried about what this will mean for our future. We discuss this daily and it has meant that I am currently particularly depressed and tearful. My poor husband has spent years away from us striving to provide the peace and privacy that this home affords us. It all feels like we have been robbed and have no control over our own future. We even looked into development possibilities prior to purchasing the house and there was nothing flagged … probably due to the fact that there was no need for discussion with planners so this all feels very underhand and not how a democratic society should work at all.

We moved here for a quiet life in a beautiful village / country setting and this house has allowed us the space to have my[redacted]d Father-in-law living with us. In turn he has been able to enjoy watching birds and wildlife [redacted] . We have bat boxes , bee hive , bird boxes and have been planting fruit trees and planting a garden to ensure that we are doing our part in encouraging and nurturing local wildlife and habitats.

I have asked the people of East Pye Solar to come to my home ,to see for themselves just how close this will be to our house and how unacceptable & potentially dangerous it would be but have had no visit/response to date .....

We feel that this type of decision should be scrutinised like any other planning submission and involve the very people who know and understand the local communities and environments the most ie:- Parish and County councils .

I send this hoping for fair and due consideration to our plight.

Sincerely,



20250205 - Personal Impact Statement - Brooke - [redacted]

Herewith our comments on the solar industrial site at Brooke.

1. Brooke is a well established conservation area - surely one of the least suitable sites for industrial level developments such as the solar panel development across 150 acres or so around the village. Many of us will have moved to Brooke as it has been, in theory, protected from this kind of development - and as a conservation village house prices have been higher than many other locations - we shall be badly let down as house prices generally will reduce.
2. The industrialisation of open countryside will impact the rural landscape - not just the fields themselves but any fencing, security cameras, footpath access etc. Creating large areas of industrial style solar panels on these open (and productive) fields is likely to have long term effects on soil and wildlife - and especially for people living adjacent to the fields, possible mental health issues.
3. The cobbling together of many field locations to create a so called `strategic` infrastructure is clearly to remove the ability of local people to have their say - this to say the least is dispiriting and a serious blow to any confidence we might have in government decision - making - [redacted] quite simply has a political target to meet which is far from sensible as seen by many inside the energy industry. Meanwhile their will be a serious impact on so many lives who live and have access to the countryside.
4. The loss of 150 acres around Brooke may not seem much in the grand scale of things - but those of us who live closeby can see a clear loss of food production in favour of a poorly thought through industrial development. The alternative of roof top solar panels, on house and factories, supermarkets, car parks etc has been shown to be a viable alternative and a policy which would command much more positive support from the people of this country.

I hope these comments are helpful as the Parish Council fights this deplorable proposal.

With best wishes

[redacted]

20250208 - Personal Impact Statement - Brooke - [redacted]

Hi, I understand you are collating feedback on the proposed East Pye development. I think I sent you an initial email expressing concern several weeks ago and I also wrote direct to East Pye.
After a period of reflection I am still of the belief that this is a strongly flawed proposal. Prime farming land in a leading agricultural region should be protected against loss of its ideal use. The country needs to boost agricultural output not diminish it. There are other areas to better site solar panels.
Time has not lessened my dismay at the prospect of extensive solar fields so very close to Brooke. East Pye have stated they wish to lessen the acknowledged negative impacts of solar fields, whether this be environmental or human impact. When I spoke with the East Pye project manager at the open meeting in Woodton. I was advised that they wished to minimise impact on homes and individuals and that this was their policy. If this is the case it is extremely difficult to understand why the large areas adjacent to the south of Brooke were selected. When they invited land owners to put forward suggestions for fields to be used, surely there must have been some guidelines to them asking them to not choose fields in full view of and very close to several properties and businesses? Were such guidelines given? If so, why was the Brooke proposal not rejected from outset as failing to meet the stated criteria? If no such guidelines were given to the land owners, surely this was a grave error on behalf of East Pye and one that they should certainly correct.
I am very worried that the Brooke element of the development may come to pass if due attention is not given to human impact. The prospect of lengthy disturbance of construction and the horrendous visual impact that will blight not only myself and my wife but generations to come is hugely depressing and is distressing to us.
If solar farms, against the weight of logic are deemed by government to justify their presence in farmland, at least they should ensure they put them on farmland that cannot be seen from numerous homes and blight the local population. There is enough land in this area to ensure this need not happen.
I hope the feedback you receive will eventually reach those who will make the final decisions and that they will respond in a sympathetic and caring manner.
Thank you,
[redacted]

20251108 - Personal impact statement - Hempnall - [redacted]

The personal impact of the proposed East Pye Solar Scheme for the area I live in is massive. It hurts me deeply. The fact that at least ten local villages will be hugely affected by this scheme, and that large areas of beautiful countryside will be effectively transformed into one huge industrial area is devastating. It hurts that hundreds of acres of good farmland will be subsumed and ultimately destroyed by this ill considered and unethical proposal.

The thing I find particularly upsetting is the heavy handedness, the lack of consideration and the unfairness of the whole scheme.

There has been minimal consultation. The consultation we have had only came after the whole layout of the solar 'farm' had been mapped out and contractually agreed with the landowners. We were presented with what was largely a fait accompli. Like it or lump it, this is what we're going to do so get used to it. . This is unacceptable.

To add to the heavy handedness and unfairness, because the scheme is large enough to be categorised as an NSIP (Nationally Significant Infrastructure Project), local objections can be utterly ignored and the Secretary of State can simply give his OK to the whole scheme. He has shown already that he is perfectly capable of overriding very strong legitimate objections and rubber stamping such schemes elsewhere in the country. This is authoritarian behaviour.

The Prime Minister has added his voice to the clampdown on dissent, calling those who object "nimbys and blockers", emotive and insulting language.

This leaves me feeling very angry and at the same time disempowered and depressed. We are being steamrollered by a government that refuses to even listen to valid argument. Objections are suppressed or ignored. When your own government shows how little they care about you how can you feel anything other than disillusionment, despair and depression.

Yes, renewable energy is a good thing, but destroying the countryside by covering good farmland, (which is needed as we currently import 40% of our food) in solar panels is ridiculous. There are more than enough rooftops and brownfield sites which could be used to generate the power we are told we need.

No other country is doing this.

To add even more injustice and unfairness to the situation, our environment gets destroyed but we get no benefit from the power generated. The parties that benefit are huge multinational investors such as McQuarrie, who now own Island Green Power, the company behind East Pye Solar. It makes my blood boil that a 'Labour' government ([redacted] never again!) gave the go ahead for huge capitalist ventures like multinational banks etc to profit hugely from the wanton destruction of British farmland and the way of life of rural communities. That wasn't in the manifesto. .

I have always had a deep love for the countryside. I feel incredibly lucky to have been able to move to the quiet rural part of South Norfolk which I now live. Not to get too poetic about it but rural beauty and tranquility is balm to the soul. That is the reason why so many people spend a good part of their leisure time out in the country. Large numbers of town and city dwellers come out to the countryside to walk, cycle, eat etc, it is important to far more people than just those who happen to live there.

The loss of views, the fencing in of footpaths, the noise and disruption and the environmental damage caused by East Pye Solar's scheme will take all the joy out of the experience of being in the countryside anywhere near it.

I feel depressed, anxious, bullied, disempowered and enraged by this affront to everything I stand for.



8/11/2025

20251123 - Personal Impact Statement - Great Moulton - [redacted]

I would like to outline my personal impact statement as follows for the proposed East Pye developments in and around Great Moulton.

We live in probably the closest dwelling to the one of the proposed Sub stations submitted by East Pye in Great Moulton.

Our property price will devalue, we have had our property in the market from august to Nov 2025. We have had viewers but all have mentioned the plans for the village by way of East Pye! We are now off the market at this current time. I am in the housing business and over time can supply figures to support my statement.

Noise with development, disturbance along the road, with possible disruption to my frontage.

The view we have enjoyed for 34 years will be destroyed by a sub station looming over us, views from our garden will never be the same again. In my view the selling point to our home.

Noise from the sub station, which I understand will be constant. Vibration and flicker will be experienced from the panels which will be in close proximity to us. We will not in my opinion be able to enjoy our garden, sit or entertain outside as we have previously.

The stress, general worry and upset can not be quantified but be assured heightened anxiety and stress is already an issue within our household, which in turn will have an impact on our general health and well being.

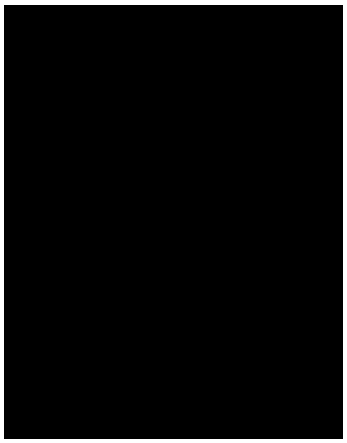
Sub stations in my view, should not be placed close to houses. The risk of fire is real, if a fire occurs our house will be affected by smoke, disturbance and fear of the fire spreading. Our house insurance will increase (who pays for that?)

East Pye have in my view not taken into consideration the dwellings closely located to their plans.

There is little screening surrounding these proposed sites, especially north of the proposed sub station. It will take at least 30 years before this screening is established, I shall have one way or another moved on by then.

The maintenance of the sub station will increase traffic flow along this tiny road, along with noise disruption, which will affect our enjoyment of our home, together with lights from the plant glaring into the night sky.

This so called development will destroy lives. Ours for certain



20260220 - Personal Impact Statement - Hempnall - [redacted]

Proposed East Pye Solar Development – South Norfolk

Resident: [redacted]

I am a full-time resident of [redacted] Hempnall, where I have lived with my family for the past 16 years. Our home is located within close proximity to the proposed East Pye Solar development, in what is currently a peaceful rural agricultural landscape.

My objection and concerns relate to the direct and personal impact this development would have on my family's home life, wellbeing, livelihood, and my daughter's education.

Impact on our home environment and family wellbeing

We chose to live in Hempnall specifically for its quiet rural character, dark skies, open countryside, and natural environment. This peaceful setting is essential to our family's wellbeing.

My husband works [redacted] for extended periods. When he returns home, the peace, quiet, and natural surroundings of Hempnall are essential to his mental recovery, wellbeing, and ability to rest. The industrialisation of the surrounding countryside with large-scale solar infrastructure would fundamentally change the character of the environment he relies upon for rest and recovery.

My son [redacted] The calm, predictable, and quiet rural environment we currently live in plays a vital role [redacted] The countryside provides a stable and restorative environment that would be significantly altered by the presence of industrial-scale development, construction disruption, and the long-term change to the rural landscape.

The loss of tranquillity, natural views, and rural character would have a direct and harmful impact on our family's mental health and quality of life.

Impact on my daughter's education

[redacted], and the countryside around Hempnall forms a fundamental part of her education. We regularly use local footpaths, fields, and natural areas to support her learning in science, geography, environmental studies, and physical wellbeing.

The presence of a large-scale solar development in close proximity would reduce the availability and quality of the natural environment that forms an essential part of her daily education. It would replace open agricultural countryside with industrial infrastructure, changing both the visual environment and the experience of being in nature.

This would have a lasting negative impact on her educational experience and wellbeing.

Impact on my livelihood

My income is directly dependent on the rural character and environment of Hempnall. I host visiting students from Europe who specifically choose to stay in our home because of its peaceful countryside setting and traditional rural English environment.

These students come to experience quiet countryside, wildlife, and rural life. The presence of a large-scale solar development let alone the construction work would fundamentally alter the character of the area and making it not possible for me to host students for a number of years.

Change to the character of the local area

Hempnall is a rural village characterised by agricultural land, open countryside, and a peaceful natural environment. The introduction of extensive solar infrastructure would industrialise the surrounding landscape and permanently alter the character of the area.

This would result in:

- Loss of rural character and tranquillity
- Visual industrialisation of agricultural land
- Harm to the peaceful residential environment

- Reduction in the quality of life for nearby residents

These impacts would be long-term and difficult or impossible to reverse.

Conclusion

My family has lived [redacted] for 16 years. Our home, livelihood, and family wellbeing are deeply connected to the peaceful rural environment of Hempnall.

The proposed East Pye Solar development would have a significant and harmful impact on:

- Our family's mental health and wellbeing
- My husband's recovery from offshore work
- [redacted]
- My daughter's education
- My livelihood hosting visiting students
- The rural character and tranquillity of our home environment

I respectfully ask that these personal impacts be given full and serious consideration when assessing this application.

The peaceful rural environment surrounding our home is not simply a preference, but a fundamental part of our family's wellbeing, education, and livelihood.

[redacted]

20260306 - Personal Impact Statement - Saxlingham Nethergate - [redacted]

As a resident for over 20 years in Saxlingham Nethergate I am writing to object to the East Pye Solar project and wish to register with you how adversely this will affect my wellbeing and mental health

I regularly walk around the affected area and I find it personally devastating that great swathes of the beautiful countryside and public footpaths will be blighted by these enormous solar panels, not only for myself but the wildlife and nature that currently thrives in this area, but will be severely affected by the East Pye Solar project

In addition, I am also deeply concerned about the impact the heavy duty goods traffic will have on the roads through the village…..there seems to be absolutely no consideration at all for the residents of our village.

I also have a concern about the loss of productive farmland through this project…. the recent Middle East war is demonstrating how important food security is for our nation, and this project will only damage our food production capacity

Yours

[redacted]

20250210 - Personal Impact Statement - Brooke - [redacted]

Whilst we have a number of concerns about the efficacy and appropriateness of large solar farms to help meet government targets for green energy, we have tried to restrict our comments here to issues that affect us directly. However, the policy of depending so heavily on PV technology, with the problems associated with lithium sourcing, handling and dependence on China and other Far Eastern countries as suppliers, plus the difficulties of recycling/repurposing.

Site 9 on the EPS plan is bordered on three sides by narrow single-track roads, not suitable for construction traffic, and already over-subscribed by local travellers and used as ‘rat runs’. We chose to live in quiet South Norfolk to enjoy the tranquillity of the countryside and a development of this magnitude would surely destroy that calmness.

The solar panels are to be mounted on 15 foot frames and surrounded by security fencing, and pole-mounted CCTV cameras. Most of the proposed sites are in sparsely populated areas and we fear that they could well be targets for vandals, not only damaging some of the panels and reducing their performance but attracting undesirable elements to South Norfolk. We are confident that most residents of South Norfolk do not want to be overlooked by industrial-scale constructions. They, like we, wish to continue enjoying the countryside.

[redacted]

20250211 - Personal Impact Statement - Brooke – [redacted]

From [redacted]
Re: Violation of our landscape with solar panel's
I would like to protest most strongly against the ruination of the landscape around the productive farmland around Brooke and neighbouring villages with acres of solar panels.
I totally agree with all the other protesters and their pointers as to the environment and impact of the covering of thousands of acres of productive farmland and loss of habitat for many species.
This project would be a great injustice to everyone living in the south Norfolk area and would impact the area for generations to come with the destruction of the environment and landscape with something that nobody has any idea of the long term impact.
Best regards
[redacted]

20250716 - Personal Impact Statement - Brooke - [redacted]

Thanks for the draft objection letter. My wife and I, and other members of our family, as well hopefully as friends, are intending to submit an objection. I was just concerned whether we should not also be submitting an objection, or at least copying it, to the local authorities involved, and also to the Government, as surely it is they who need to be convinced of the case against the scheme rather than the company itself?

As people who hugely value the countryside and villages potentially damaged by the plan, rather than residents of those villages, we are in a different position to many people who will be objecting, and I wonder if we should be objecting on a more personal basis.

Any thoughts as to the most effective way we can play a part would be helpful.

Thank you,

[redacted]

20251114 - Personal Impact Statement - Great Moulton - [redacted]

Id like to strongly object to the proposals of solar panels

Ive lived in the countryside most of my life, in Great Moulton for last 37 years

I am a footpath walker and love the beauty of our countryside and count myself very fortunate to live here, my family are also farming related, I believe not only are you destroying such a beautiful sight of our land but taking away a food source and employment and devastation to wildlife

I think this country has gone mad

How on earth can any of this be justified

Net zero is a joke, im all for doing our part but when we have other countries that negate what we do I ask myself why??

You will be taking away livelihood, natural beauty, habitat and lots of what nature has to offer as well as the tranquility and mental well being of many people who sought to dwell in a village and enjoy their surroundings and lifestyle

We in UK are just a small island and already the housing developments are eating into our land , solar panels etc are welcomed but not on our beautiful land which will only be a picture in history books should you continue

please read this as a strong objection

[redacted]

20251119 - Personal Impact Statement - Saxlingham Nethergate - [redacted]

My personal impact statement {PIA}

I am forwarding a copy of the email I have sent to Dalcour Maclaren who are acting on behalf of the East Pye Solar Project . My grave concern is the passage of heavy construction vehicles along The Street in front of [redacted] } will damage the footings. As it was built in the 16th Century it has no deep foundations. I have requested that another route should be chosen avoiding Saxlingham Nethergate village altogether due to it being a Conservation village with many listed properties lining The Street. As yet I have had no reply from Dalcour Maclaren and thus am writing to you for additional support in raising my concerns.

Thankyou.

20251123 - Personal Impact Statement - Saxlingham - [redacted]

I live at [redacted]

I have a number of concerns over the proposed East Pye Solar development. Specifically, loss of valuable agricultural land, unsightly industrial landscape, destruction of natural habitats, adverse impact on public rights of way, loss of property value and concern over the height of panels.

I also have concerns over the proposed route for the delivery of transformers. The route will go past my house. The extremely wide and heavy vehicles will damage our road, verges, vegetation, water pipes and water meter. I understand that these vehicles will be travelling through the village during the night and I am concerned that the noise, vibration and light flicker will disturb my sleep.

I am also concerned that the community will suffer through the possible loss of some of their property frontage and the damage to very old properties in a conservation area. Furthermore probable damage to roads, oak trees, verges, vegetation, water pipes, culverts, bridges and ditches. There will be greater risk to the safety of school children at the school and to users of the playing field. There must also be some concern that emergency vehicles will not be able to access the village at night.

Your sincerely

[redacted]

23rd November 2025

20260208 - Personal Impact Statement - Brooke - [redacted]

Our meadow address where we keep our horse is:-

[redacted]

The proposed Photo Volatics would be located directly at the bottom of our meadow

Currently our meadow is just outside the area of flooding as recognised by the Environmental Agency Flood Risk

Our concern is the proposed solar panels due to there individual size wil have a surface area equal or greater than piece of land at the rear of our meadow

Also add on the factor the concrete to used to support the structural steel frames will reduce the surface area water can seep into

Therefore when we have heavy rain there will be a greater surface area on the glass and a smaller area on the ground to take the surface water run off

Therefore water will over a period of time will saturated the ground and will make the adjacent areas of ground constantly wet

This will mean we will not be able to use our land for grazing the horse for probably six months of the year

Also remember the soil is mainly clay and slows down permeability and will reduce the grass and will result in more perennial weeds growing

The ditch at the rear of our meadow never get cleaned out so any clearing of same needs to be identified in a maintenance programme (every three years)

Also the movement corridors needs to be large enough to accommodate a 3.5 ton 360 digger to carry out any maintence works

With regards to Glint and Glare my opinion there needs to be a separate Glint an glare impact analysis for a scheme of this size and be part of any planning process

I also think technology has not been tested on this scale of solar farm and is likely to prove expensive and may never work

Best regards

[redacted]

20260212 - A poem - [redacted]

The skylark’s song choked in silicon dust,
Where ancient loam is traded for greed,
A landscape brokered in a breach of trust,
To serve a myth of sustainability need.

Beneath the weight of glass and steel,
The life of countryside ceases breath;
A hollow pact with blind political seal,
That sows a harvest of industrialised death.

The hedgerow falls, losing nature's fare,
Where briar bloomed and goldfinch dwelled.
Hare and deer banished to where?
As heavy machines construct modern hell.

And what of us, who watch the meadows die?
We pay the tribute in soaring electric bills,
While foreign ledgers blossom beneath our sky,
And sunsets glimmer amongst blacked out hills.

The chalkstream, once a vein of light,
Now runs with ghosts, chemicals and silt,
A poisoned ribbon winding through the night,
The silent witness to a nation's guilt.

The trout are gone; the gravel beds grey,
As toxins leach where clear waters once ran,
The price of "progress" thrown upon the clay,
The arrogant, ephemeral work of man.

And when the decade’s fickle sun has set,

And panels crack, unrecyclable and vast,
What legacy will our own children get,
But deserts made of wire and shattered
glass?

They’ll walk a land that’s neither wild nor sown,
A desecrated ghost of what was there,
To reap the bitter crop that we have grown:
A hollow earth, just humming in the air.

20260213 - Personal Impact Statement - Morningthorpe - [redacted]

I live in [redacted]

The proposal for both East Pye and Tasway are alarming to say the least. According to the map a huge area of where I live, drive and walk will be affected and my daily life a constant reminder of the fact that I would now be living in an industrial led space.

I moved here for the very reason most people moved out of towns and cities to the south of Norwich. For the views, openness unblighted outlook and the feel, yes the feel of the place.

I have been here since 2019 and bought a house to renovate and then stay [redacted] and my daughter and I are carrying on the project largely unaided. AS we both want to stay and enjoy the blood sweat and tears we have poured into this, our HOME.

Every aspect of this industrial scale project is a huge concern. From the obvious impact on the landscape, wildlife and biodiversity we have witness around us from the nightly visits of bats over the house to a variety of owls around us in the local woods and barns.

We have only just gained some peace and quiet around us and our one track road since the bypass was completed. Where during this process with road closures we have buses, lorries and cars trying to get through and cars coming into the drive to pass each other, so much so we have had to have gates put in to avoid the mess they were creating.

Will we really and honestly benefit from the landscaping thats proposed in and around the solar panel sites. This feels like a lip service to the residents. WOULD YOU BE GENUINELY COMFORTABLE WITH HAVING THIS ALL AROUND YOU WHERE YOU LIVE. I seriously doubt it.

Yes we need to sort out this countries consumption of energy but why it has to be concentrated this side of Norfolk is such a MAJOR scar on the area, Im sorry I do not understand why you would consider that any of us in the area would be comfortable with it.

Just a thought from a security point of view would a spread of our energy sites be more prudent. Less of a risk of sabotage from outside influences or other countries. Or are you going to put up fencing and security systems which adds to the blight.

Then there is the noise, mess, traffic and everything else that affects a build of this size and scale and for so many years. The cost of our homes if we choose to sell during these changes for a number of life situations that do come up. The value and obvious changes to the area will form the decisions of buyers. This makes me feel dread and sick in my stomach if I think on it. So I try not to

The list goes on and on as I hope you can imagine if you walked in our shoes.

I love this area I live now and feel fortunate to have found it and it has provided a safe and positive place to dwell……

I hope you actually read this letter and pause even if just for a moment to consider how this will affect our lives and those who have also chosen to dwell briefly or a life time.

[redacted]

20260220 - Personal Impact Statement - Aslacton - [redacted]

I have lived in Aslacton for over 50 years. I was a pig farmer. It is a stressful business and it culminated in [redacted].

My recovery drew heavily on my love of the local countryside. Our lovely network of tree and hedge lined lanes, our undulating fields with their crops changing colours and textures as they develop through the seasons.

The thought of our countryside being dedicated and industrialised by acres of appalling solar panels, sub stations and battery storage is already causing me great anxiety and distress.

I am not against solar energy, I have panels on my house. I am completely against them on good farmland. The roofs and even the sides of some buildings, domestic, industrial and municipal should be used.

The suggestion that solar sites will have any effect on global warming and weather patterns when we only contribute 1 percent of emissions is ridiculous.

This is another example of this Government not thinking through the implications of their actions.

[redacted]

20260220 - Personal Impact Statement - Aslacton - [redacted]

I have lived in South Norfolk villages Great Moulton, Tivetshall St Mary and Aslacton since 1987.

Living in such a beautiful part of the Country has given me solice and sustained me in times of difficulty during my life.

I love the peace and quiet, the wildlife the wildflowers and bird song in the hedges and roadside verges.

I have had many sleepness nights worrying about what it may become, an Industrialised dead landscape with 24 hour noise and light polution.

It fills my days with worry and i could weep for what we might loose.

Im not against solar in the right place indeed i have panels on my house, but on good agricultural land it is wrong.

We already have 3 solar farms to my knowledge under construction. One between Old Buckenham and Attleborough. One in Mulbarton and one on the outskirts of Palgrave near Diss. There is one at Trowse and one near the Hempnall roudabout. I think we already have our fair share.

We are not going to be compensated for loss of property value never mind the impact on our mental health.

It is like living in a nightmare from which you cannot wake.

[redacted]

20260220 - Personal Impact Statement - [redacted]

My family moved to Norfolk from Suffolk nearly nine years ago, and part of the attraction was the tranquil ,peaceful, lovely countryside that Norfolk enjoys. Seeing the devastation of so much of the local countryside is upsetting and worrying, why are Solar Panels not on brown field sites, put on factories tops for example, multi-story car parks, or imposed as a regulation that all new build houses have solar panels installed on them, Why should agricultural land that should be used to feed our nation be used to purse a Net Zero objective

The beauty of Norfolk and Suffolk is being eroded without addressing the concerns and worries that so many of its inhabitants , what about the environmental costs, the effect on wildlife, essential for our well being, Has EVERY aspect of this and other proposal been FULLY thought through, I would suggest not, there are other ways and means

Regards [redacted]

20260320 - Personal Impact Statement - Saxlingham Nethergate - [redacted]

The possible constuction of East Pye solar farm is causing my mental health to spiral downwards. The very thought of losing our precious countryside to an industrial landscape makes me so sad and angry
I find the idea of fertile agricultural land being permanently industrialised both perverse and intensely worrying bearing in mind the pressures of food security
I am concerned about the impact on wildlife habitats, free movement of mammals will be impossible and feeding patterns and routes will be lost forever
Pouring concrete on to green and fertile land is the very antithesis of caring for our environment- the land will never be returned to agricultural use because it will be permanently contaminated
The danger of increased flooding from impaction on the claylands soil - Saxlingham Nethergate village centre floods already with the smallest amount of rain when the water table is high, which is becoming more frequent with current weather patterns
The loss of amenity of our landscape with footpaths being disturbed and possibly re-directed/closed
Walking on footpaths surrounded by solar panels will be soul destroying
The danger from walking on pathways that are fenced in on both sides would mean that I can not enjoy the countryside as I do now
I ride regularly on our bridleways and restricted byways - it will become dangerous to do so with the increased traffic around the country lanes
If the solar panels are moving ones it will be even more dangerous to ride near them as horses will be spooked
During construction phase the movement of lorries on small country roads will disfigure the countryside permanently, which will continue when repairs and replacements are needed
Increased traffic both during construction and continuing will ruin the peacefulness of the area
The noise of construction will be heard all over the village and beyond
If the solar panels are moving ones there will be permanent noise disturbance for all residents
We currently have far reaching dark skies (for which Norfolk is well known) which will be polluted by lights on the solar fields
I want to know why our way of life is being sold out so that investment banks can make money at our expense?
PUT SOLAR ON ROOFS AND BROWNFIELD SITES - NOT ON COUNTRYSIDE
PROTECT OUR FOOD PRODUCING LAND
PROTECT OUR WILDLIFE

Kind regards
[redacted], Saxlingham Nethergate resident

Objections submitted in response to East Pye Solar

PINS Reference: EN0110014

BATTERY ENERGY STORAGE SYSTEM TIVETSHALL/GREAT MOULTON BORDERS

This document should be read in conjunction with the Village Documents:

Land Parcel 1 and Landparcel 2B Great Moulton
Land Parcel The BESS and Sites 2A and 2BTivetshall
Land Parcel 2- Wacton Land Parcel 2C
National Grid Substation

Submitted by:

[redacted]



DISCLAIMERS

Research Method and Use of AI

This document has been prepared from research undertaken by multiple human researchers using information available at the date of preparation. Sources include East Pye Solar application documents, Planning Inspectorate material, National Grid/NGET informat ion, statutory consultee

evidence, relevant government and regulatory material, guidance, best practice and, where relevant, peer-reviewed research.

Given the scale and complexity of the documentary record, BEPS Great Moulton also uses a closed-project bespoke GPT as a research and analytical aid. It assists with organising, cross-referencing and comparing material, identifying links between documents and topics, and supporting analysis of evidence already gathered by the research team.

The GPT is not treated as an independent source of evidence or as a substitute for human judgement. All submissions are reviewed, edited and checked by human members of BEPS Great Moulton. Material sources and significant factual propositions are checked against the underlying documents before reliance is placed upon them, and the authors determine the arguments and conclusions advanced.

This document is therefore a human-reviewed submission, not an independent expert report. Responsibility for its contents, accuracy and arguments remains with the authors. AI has been used only as an analytical, cross-referencing and document-management tool within a human-led research and review process.

Where this draft refers to National Grid Electricity Transmission plc (NGET) representations, it relies on the wording quoted in the source document unless the final submission team has separately checked the published Examination Library version.

The Ofgem material is used for a narrow purpose: it supports the proposition that BESS connection deliverability, queue credibility, battery oversupply and network-capacity allocation are live regulatory matters. It is not used to assert that East Pye has lost its connection or that the BESS cannot connect.

It is understood that East Pye Solar has continued to amend, supplement and update material submitted to the Planning Inspectorate during the examination process.

Accordingly, we respectfully ask the Examining Authority to read this submission in the context of the information reasonably available to us at the time it was prepared. Where subsequent Applicant submissions clarify, amend or supersede earlier information, any resulting discrepancy within this document is unintentional and should not be interpreted as an attempt to misrepresent the Applicant's case or evidence.

On behalf of the Village of Great Moulton we have sought throughout to present the Applicant's evidence accurately and fairly, while identifying those matters on which we consider further clarification, evidence or examination is required.

Initial comments on submission by East Pye (Island Green)

This objection is submitted as a challenge to the siting, design envelope and secured mitigation for the East Pye BESS and adjoining grid infrastructure,

The Applicant has submitted a substantial Environmental Statement, topic appendices, management plans, a Site Selection Assessment, Design Approach Document and an Outline Battery Safety Management Plan. The examination issue is whether those documents, taken together, provide sufficiently site-specific and enforceable evidence for this particular BESS/Site 1 infrastructure cluster. [APP/6.1.2 –6.1.20; APP/7.1–7.5; APP/7.17; APP/7.18; APP/7.20]

A recurring difficulty is documentary clarity. For example, ES Chapter 3 identifies a separate BESS Site of approximately 22.90 ha, while ES Chapter 4 describes Work No. 2, the energy storage facility, as the BESS compound 'contained within Sub-Site 1B'. BEPS does not assume that this changes the physical proposal, but asks the Examining Authority to require a definitive plan and reconciliation schedule so that the BESS Site, Work No. 2, Sub-Site 1B, Project Substation, National Grid Substation, access, drainage and mitigation land are understood consistently across the Works Plan, Land Plan, draft DCO and ES. [APP/6.1.3; APP/6.1.4; APP/2.2; APP/2.3; APP/3.1]

Oxford EN010147 Secretary of State Request

The Secretary of State request for further information in Botley West Solar Farm, EN010147, is not relied upon as a binding precedent. It is relied upon only as a recent comparator showing that, in a large solar NSIP, unresolved issues about alternatives, site selection, grid connection, design evolution, cumulative effects and mitigation can justify further information before determination.

The same type of scrutiny is appropriate here because Land Parcel 1 / Site 1 combines the National Grid Substation, 400 kV Project Substation, overhead-line works, cable routes, pylon works, access requirements, PRoW interactions, Grade 2 BMV land, private-water-supply risk, landscape harm and the functional relationship with the BESS.

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EXECUTIVE SUMMARY

This submission therefore asks the Examining Authority to test the Scheme as it will be experienced locally: as a concentrated western grid infrastructure hub on and around Site 1 and the BESS, not as a set of isolated technical components.

1. No Need

Regional oversupply and the Applicant's own pipeline concessions

The Statement of Need does not merely say that East Pye lies in a generally high-demand part of the network; it acknowledges that the Scheme sits at the boundary of the "Central England" and "E. Anglia" transmission network regions and that NESO's Connections Reform process has already "prioritised sufficient solar schemes to meet the Clean Power 2030 regional capacity ranges for 2035" in both regions. That is a significant admission.

It means the Applicant's own evidence shows that the relevant regional solar requirement is already met by other prioritised schemes. In those circumstances, East Pye cannot be justified simply by reciting the national need for renewable generation or by saying that the Clean Power 2030 and 2035 pathways are not a cap. The issue is not whether solar is needed somewhere in the national system; it is whether this additional 500MW solar NSIP, with its disputed ecological, landscape, heritage, water, agricultural, transport and BESS-related impacts, is necessary and proportionate in this particular region when the regional pipeline is already sufficient on the Applicant's own case. The Applicant's reliance on pipeline attrition and "optionality" is too general to answer that point. It amounts to an argument that any further project should be consented because some other projects might fail. That is not a site-specific need case.

Where the relevant East Anglia and Central England ranges are already satisfied by prioritised schemes, the Applicant must explain why East Pye is still required in preference to less harmful, more advanced, or more strategically located alternatives. It has not done so. The Planning Inspectorate should therefore give materially reduced weight to the asserted need for East Pye Solar, and should not allow generalised national policy support for renewable energy to obscure the Applicant's own concession that the relevant regional solar pipeline is already sufficient.

The applicant's own ES Chapter 5 confirms that the alternatives exercise is framed from the outset by an asserted "clear and urgent need" for the Scheme at the proposed scale, and that even a smaller development was not taken forward as a reasonable alternative. In BEPS's submission, that approach begs the very question that should be answered. Once the relevant regional capacity ranges are already said to be met by other prioritised projects, the applicant must show why this highly constrained 500MW scheme, with major and disputed effects across ecology, water, heritage, agricultural land, transport and human health, is nevertheless necessary and proportionate here.

BEPS further objects that the claimed solar-plus-storage justification is itself contingent, because the Statement of Need is said to admit that the BESS has only Gate 1 prioritisation and no confirmed indicative connection date, while still relying on storage-led benefits of flexibility, affordability and resilience.

1. BESS Site: Unlawful / inadequate site selection and alternatives weak deliverability and limited weight due to Gate 1 status

The Applicant's justification for the BESS Site is materially weakened by its own concession that the BESS does not have the same connection certainty as the solar element.

The Applicant is seeking consent for a substantial BESS compound and relies on co-located storage as part of the Scheme's claimed operational and public benefits, but the material available records that the solar component has secured Gate 2 whereas the BESS element has secured only Gate 1 prioritisation, with no confirmed indicative connection date.

That distinction is critical. Gate 1 status is not a planning need case, not a finding of environmental acceptability, and not evidence that this BESS Site is necessary in this location. It indicates a materially more contingent storage element being presented within the same DCO envelope as if it were an established and deliverable part of the Scheme. In those circumstances, the Applicant should not be permitted to rely on the benefits of the BESS to strengthen the planning balance while avoiding a proper site-specific justification for the BESS Site itself.

The absence of a confirmed BESS connection date also reinforces the inadequacy of the alternatives appraisal: a solar-only option, reduced-BESS option, alternative BESS location, or off-site/network-level storage solution should have been assessed.

Until the Applicant demonstrates that the BESS is deliverable, required and proportionate, the BESS Site should attract little positive weight, and its land take, industrialising effects, drainage, safety, carbon and replacement impacts should weigh separately against the Order.

The Applicant has not shown that the BESS has been located in the least harmful, safest or most environmentally appropriate place within the wider scheme, nor is that the point is that the BESS is being treated as though its location is fixed, all the while the Applicant has not provided a robust alternatives appraisal explaining why a high-risk lithium-ion installation must be placed close to homes, rural lanes, PRoWs, private water supplies, sensitive ecology and heritage assets.

The Guide to the Application states that the Site Selection Assessment evaluates locations for the Scheme, the new National Grid Substation and solar development, but this has not assured a proper BESS-specific alternatives assessment for the highest-risk element of the project.

The Planning Inspectorate should require the Applicant to demonstrate, with evidence, why the BESS cannot be relocated to a less sensitive parcel, further from residential receptors, private water supplies, heritage assets and constrained emergency-access routes. Without that evidence, the site-selection exercise is inadequate and the EIA cannot lawfully support the chosen location.

2. Cumulative impact choke-point

The BESS Site should be treated as a cumulative impact choke-point, not as an isolated storage compound.

The Applicant's own Scheme description places the BESS compound within Sub-Site 1B and locates it in the same functional grid cluster as the 400kV Project Substation, the new National Grid Substation, grid connection infrastructure, access works and temporary construction compounds.

That concentration matters because it brings multiple infrastructure burdens into one locality: construction traffic from Hundred Lane and Station Road, PRoW disruption, hedgerow and tree-belt loss, temporary lighting, operational noise, drainage and firewater controls, and the long-term visual and experiential effects of BESS and substation infrastructure in an open agricultural landscape.

The Applicant's own landscape tables identify the BESS Site, 400kV substation, CRC1 and CRC2 together, and record significant adverse construction effects arising from the combined presence of the BESS, substation infrastructure, construction vehicles, task lighting, temporary fencing, noise, PRoW closures and vegetation loss. The cumulative concern is therefore not theoretical: the BESS Site is where several of the Scheme's most intrusive elements converge. That is also why consultee concerns about cumulative effects are directly relevant.

Historic England asked for adjacent and overlapping solar/BESS projects to be included; Hempnall Parish Council objected that the Applicant had failed to assess the combined impacts of the Scheme's own constituent parts; Norfolk County Council raised serious concerns about cumulative impacts from East Pye alongside other NSIPs and energy-related development; and South Norfolk Council raised a strong formal objection because the significant cumulative impact of solar, BESS, grid and related projects had not been adequately explored. In those circumstances, the BESS Site cannot be justified by treating each impact topic separately and then describing effects as "localised." The point is that the locality is the choke-point.

The Planning Inspectorate should require a specific cumulative assessment of the BESS Site as a combined grid, storage, substation, access, drainage, landscape and noise receptor area. In the absence of that assessment, the BESS Site should attract little positive weight and its cumulative burdens should weigh against the Order.

3. European Protected Species and licensing deliverability & Ground-Nesting Bird Constraint

The BESS Site should be treated as a protected-species and licensing-deliverability constraint, not as a neutral area for storage infrastructure. The Applicant's own Order Limits chapter identifies a single BESS Site for the "storage, import, and export of energy to the National Grid", with a project substation also located in the BESS Site and the new National Grid Substation nearby in Sub-Site 1B.

This concentration of permanent infrastructure is proposed in a wider ecological baseline where great crested newt is expressly treated as a relevant receptor: the ES records that ponds within 250m of the Site parcels and CRC were assessed for GCN suitability and eDNA, and that accessible ponds within the Sites/CRC and within 250m were surveyed in 2024 and 2025.

South Norfolk Council specifically warned that District Level Licensing availability in Norfolk was limited and that the Scheme should ensure sufficient data to inform a mitigation licence application if DLL was unavailable; the Applicant's response was that GCN surveys and an Outline Protected Species Mitigation Strategy would address the issue. That is not the same as demonstrating licensing deliverability for the BESS Site itself.

The same concern applies to birds. The ES confirms breeding bird constraints across the Scheme, including red-listed linnet, skylark and yellowhammer, amber-listed species, probable breeding barn owl, and an arable farmland assemblage associated with field margins, hedgerows, woodland, scrub, ponds, ditches and scattered trees. More importantly

for the BESS Site, skylark is expressly scoped into operational assessment for Sites 1–10 and the BESS Site, and the ES records 81 skylark breeding territories, 70 within areas subject to permanent development; skylark is red-listed, a NERC Act section 41 priority species, and the Applicant accepts that nesting within solar arrays and associated infrastructure such as BESS is assumed to be deterred. The BESS Site therefore sits within a matrix of European Protected Species risk, licence dependency, and red-listed ground-nesting bird displacement. In those circumstances, it is inadequate to rely on outline mitigation and later licensing as though they are mere implementation details. The Planning Inspectorate should require the Applicant to demonstrate, now, that the BESS Site is avoidable, necessary, licensable and deliverable without unacceptable harm to GCN and breeding birds during the ground-nesting season. In the absence of that demonstration, the BESS Site should be treated as a high-risk ecological constraint and should weigh against the Order.

4. Deferral and unenforceable mitigation

The BESS Site should not be treated as environmentally acceptable where the Applicant's case depends on deferred mitigation rather than enforceable, site-specific controls.

The BESS is a substantial permanent storage compound with distinct risks and impacts: firewater containment, surface-water drainage, pollution control, lighting, operational noise, security fencing, access, replacement activity and decommissioning. Yet the Applicant's approach repeatedly pushes the detail of those controls into later management plans, detailed designs, or future approvals, rather than fixing clear mitigation in the DCO now.

This is particularly problematic for the BESS Site because it is not a generic solar field: it is one of the most technically complex and risk-sensitive parts of the Scheme. Mitigation for battery fire risk, contaminated firewater, drainage exceedance, lighting spill, replacement works and ecological protection must be precise, measurable and enforceable before consent is granted.

Outline commitments and phrases such as "where practicable", "as far as reasonably practicable", "where required" or "to be agreed at detailed design" are not adequate where they leave the substance of mitigation uncertain. This is not a matter of drafting preference; it goes to the lawfulness of the planning judgment.

The Planning Inspectorate can only give weight to mitigation which is secured, effective and capable of enforcement. If the BESS Site's acceptability depends on later decisions about the location, design, firewater capacity, drainage specification, lighting limits, ecological buffers, replacement works and emergency response, then the environmental effects have not been properly assessed at this stage.

In these circumstances, the BESS Site should be treated as insufficiently controlled and should weigh against the Order unless the Applicant provides binding DCO requirements with fixed performance standards, site-specific drawings, clear trigger points, approval mechanisms, monitoring obligations and enforceable remediation duties.

5. Water, private supplies and contamination risk

The BESS Site should be treated as a high-risk water and contamination receptor area, not as a routine ancillary compound.

The Applicant's own Water Environment chapter confirms that the assessment had to consider potential new contaminants in surface-water runoff from the BESS, contamination from battery materials including "lead, lithium and other heavy metals" during installation, replacement or removal, contaminated firewater from a BESS fire, changes to runoff from impermeable BESS areas, and impacts to groundwater recharge from BESS infrastructure.

This is a significant admission: the BESS Site introduces risks qualitatively different from solar panels in fields. Those risks are particularly serious because PINS expressly identified private water supplies as an issue, noting that a number of private water supplies lay within 250m of the site, that accurate location and abstraction data were not available, and that the ES should identify and assess potential impacts to private water supplies and their buffers where significant effects could occur.

The Applicant's later position does not remove that concern. Chapter 16 records that, within the 1km study area around the BESS, National Grid Substation and Project Substations, 29 private water supplies or permitted abstractions were identified, 19 of which are potentially still active. The FRA also accepts that sensitive water receptors, including private drinking water supplies and ecological designated sites, are located within the study area and have the potential to be impacted through mobilisation of contaminants to surface water and groundwater receptors.

Yet the proposed answer remains substantially outline-led: drainage for the BESS is to include treatment stages before controlled discharge, likely to ordinary watercourses, with firewater to be contained, tested and potentially tankered off-site; detailed BESS drainage and firewater arrangements are then left to later DCO requirements and the Outline BSMP.

This is not enough for a risk-sensitive BESS Site in a private-water-supply setting. BEPS should submit that consent cannot safely proceed unless the Applicant provides a receptor-specific assessment of each potentially affected private supply, including location, abstraction depth, source aquifer, groundwater flow direction, pathway, travel time, contaminant scenario, emergency containment failure scenario and enforceable monitoring/remediation commitments. In the absence of that evidence, the BESS Site should weigh against the Order because its water, private-supply and contamination risks have not been demonstrated to be acceptably controlled.

6. Fire, substation safety and emergency access

The BESS Site should be treated as a major safety-critical compound, not as a routine element of a solar farm. It would concentrate battery storage, a project substation, nearby National Grid substation infrastructure, electrical plant, access routes, drainage and firewater containment in one location; this creates a materially different risk profile from solar PV arrays.

A BESS fire is not simply a local operational incident: it may involve thermal runaway, toxic smoke, contaminated firewater, prolonged firefighting, exclusion zones, emergency water demand, access for specialist appliances, and potential interaction with adjacent substation infrastructure. The Applicant's reliance on an Outline Battery Safety Management Plan and later detailed approval is therefore inadequate unless the DCO itself secures clear, enforceable safety standards for the BESS Site.

The Planning Inspectorate should require, before consent, a site-specific fire and emergency response assessment addressing battery chemistry, spacing, container layout, fire-breaks, explosion/deflagration risk, water supply, contaminated firewater storage, emergency shut-down, smoke plume consequences, evacuation triggers, emergency access geometry, turning areas, appliance loading, rendezvous points, and liaison with Norfolk Fire and Rescue Service.

Particular weight should be given to emergency access because the BESS Site sits within a wider grid and substation cluster where any access failure, congestion, road closure, construction overlap, or simultaneous incident could compromise response. It is not sufficient for the Applicant to say these matters will be finalised later: safety mitigation must be precise, measurable and enforceable at the point of consent. In the absence of a robust, site-specific and fire-service-endorsed emergency strategy for the BESS Site, its fire, substation safety and emergency access risks remain unresolved and should weigh against the Order.

7. Landscape, dark skies, heritage and rights of way

The BESS Site should be treated as one of the most sensitive landscape and experiential receptor areas in the Scheme, not as a visually absorbable ancillary compound.

The Applicant's own visual baseline describes the BESS Site as lying in a large, open arable landscape on a high plateau, with visibility in all directions and long-distance visibility towards Tivetshall St Margaret, Tivetshall St Mary and Pulham Market; that visibility includes a range of PRoWs and the Via Beata route. The same baseline identifies numerous residential and heritage receptors within the BESS visual envelope, including multiple Grade II listed buildings, Wacton Conservation Area, Wacton Hall Grade II*, and a substantial network of PROWs and restricted byways.

The Applicant's landscape assessment then accepts that construction of the BESS Site, 400kV substation, CRC1 and CRC2 would cause large-scale changes to perceived tranquillity through construction vehicles, task lighting, fencing and intermittent noise; medium-scale effects on B1134 Station Road.

PRoW closures affecting Great Moulton RB19 and Tivetshall St Margaret FP3; and tree and hedgerow loss, including important hedgerows. These are not peripheral effects: they go directly to rural character, dark-sky experience, heritage setting and public enjoyment of the rights-of-way network.

The harm is compounded by the Applicant's own decision to exclude lighting effects from the main LVIA and defer them to a separate Lighting Strategy, even though the Lighting Strategy confirms that the BESS is one of the few operational elements expected to require security and maintenance lighting, with detailed luminaire locations left until detailed design. In this context, reliance on future planting, motion sensors and outline lighting controls is inadequate.

The Planning Inspectorate should require the BESS Site to be assessed as a combined landscape, night-time, heritage-setting and PRoW harm receptor. In the absence of a binding and site-specific mitigation package that fixes lighting limits, viewshed protection, heritage-setting safeguards, PRoW continuity and dark-sky performance standards, the BESS Site should weigh substantially against the Order.

8. Soils/BMV land and reversibility

The BESS Site should be treated as a permanent loss of high-quality agricultural land, not as a reversible solar use.

The Applicant's own soils chapter states that the BESS will be located on Grade 2 land and that the BESS Site is "essentially all Grade 2 quality", meaning avoidance of BMV land is not possible within the area surveyed. That is a serious constraint: Grade 2 is best and most versatile agricultural land, and the BESS is not comparable to raised solar panels on piles above retained grassland.

The BESS requires a compound of up to 6.5ha, topsoil stripping, matting on upper subsoil, concrete pad bases, permeable areas, and potentially reinforced concrete foundations to 1m or piling up to 12m deep. Those works are inherently more intrusive than ordinary solar arrays and cannot credibly be presented as merely temporary or readily reversible.

The Applicant's wider assessment itself accepts that, on a worst-case basis, permanent BMV loss from BESS, project substations, National Grid substation and tracks could amount to 37.9ha, producing a medium magnitude impact on a high-sensitivity resource and a significant moderate adverse permanent effect. The BESS Site is therefore part of the Scheme's most damaging agricultural-land impact, not an incidental feature.

Where the Applicant has not shown that this BESS is required, and where it has not tested a reduced-BESS or no-BESS alternative, the permanent sterilisation of Grade 2 BMV land is disproportionate.

The Planning Inspectorate should reject any assumption that the BESS Site is reversible and should require the Applicant to justify why a substantial battery compound must be placed on essentially all Grade 2 land when poorer-quality or off-site storage alternatives have not been properly appraised.

9. Utilities and community infrastructure

The BESS Site should be treated as a utilities and community-infrastructure constraint, not as an isolated battery compound.

The Applicant's own Order Limits chapter shows that the BESS Site is not simply a storage area: it would contain the BESS for "storage, import, and export of energy to the National Grid", a 400kV Project Substation, links to CRC1 and CRC2, and would sit in close functional relationship with Sub-Site 1B, the National Grid Substation and wider grid connection works. The Transport Assessment confirms that the BESS Site is approximately 23ha and that CRC1 links Sub-Site 1B to the BESS Site while CRC2 links the BESS Site to Site 2B, thereby making it a key infrastructure node rather than a peripheral facility.

This matters because the Applicant's own Chapter 18 accepts that the Scheme required consultation and desk-based assessment of existing telecommunications, television and utilities infrastructure, including Anglian Water assets, overground and underground broadband cables, the Cadent high-pressure gas pipeline and power network cables.

PINS expressly required that utility and telecommunications receptors be identified, and that any required diversions or alterations be located, described and assessed in the ES, including mitigation where significant effects were likely. In that context, it is not sufficient for the Applicant to rely on generic easements, the Utilities Plan and the Outline CEMP as though utility risk is merely a construction-management matter.

Shotesham Parish Council warned that, given the scale of the development and cable corridors, significant conflict with existing infrastructure and utilities was “inevitable”; the Applicant’s response was to point to easements, the Utilities Plan and outline management measures, and then assert that risk would be minimal once infrastructure is in place.

That is inadequate for the BESS Site, where battery storage, high-voltage substation infrastructure, cable corridors, access works, drainage systems, emergency response requirements and nearby residential/community receptors converge. The Planning Inspectorate should require a BESS-specific utilities and community-infrastructure assessment identifying all affected statutory undertakers, service corridors, easements, diversion requirements, outage risks, emergency access constraints, broadband/water/power impacts, construction phasing conflicts and enforceable protection measures.

Until that is provided, the BESS Site should be treated as under-assessed and its infrastructure burden should weigh against the Order.

10. Overall conclusion

The BESS Site is not a minor ancillary feature and should not be absorbed into the general need case for solar generation. It is a substantial, risk-sensitive and environmentally consequential infrastructure compound, bringing together battery storage, high-voltage substation infrastructure, cable connections, access works, drainage, firewater containment, lighting, security, utilities protection, replacement activity and decommissioning obligations in one locality.

The Applicant has not shown that this BESS Site is required for the solar generating station to operate, has not demonstrated that the BESS has the same connection certainty as the solar element, and has not carried out a transparent alternatives appraisal of a solar-only scheme, reduced BESS, alternative BESS location, or off-site/network storage option. The result is a serious planning defect: the most intrusive non-solar component of the Scheme is being justified by generic assertions about storage benefits rather than by a site-specific case for necessity, deliverability and proportionality.

That failure matters because the BESS Site carries multiple unresolved impacts. It sits within a cumulative grid and storage choke-point; affects Grade 2 BMV land; raises water, private-supply and contamination risks; depends on robust fire, safety and emergency-access controls; introduces lighting and dark-sky harm; contributes to landscape, heritage-setting and PRoW impacts; creates utilities and community-infrastructure conflicts; and relies heavily on deferred mitigation and later approvals.

These are not peripheral matters to be tidied up after consent. They are central to whether the BESS Site is acceptable at all.

In BEPS’s submission, the Planning Inspectorate should require the Applicant to justify the BESS Site as a distinct component of the Order, with fixed, enforceable, site-specific mitigation and a proper comparison of alternatives. Unless and until that is done, the BESS Site should attract little or no positive weight, its adverse impacts should be weighed separately, and its inclusion should count against the making of the Order.

Examination Requests

On behalf of **Great Moulton, Tivetshall and Wacton** , we respectfully request that the Examining Authority require East Pye, and NGET where relevant, to provide a coordinated response to the matters set out below.

These requests are intended to test whether the Scheme is sufficiently defined, assessed and secured for determination. **They do not seek to transfer the Applicant's design, assessment or evidential responsibilities to local residents.**

- **BESS need and deliverability:** Confirm the specific need, connection status and deliverability relied upon for the BESS, and identify which claimed planning benefits arise from the BESS rather than from the solar generating station alone.

- **BESS alternatives:** Provide a transparent comparison of reasonable BESS locations and configurations, identifying the environmental, technical and land-use criteria applied and explaining why less sensitive alternatives were rejected.

- **National Grid Substation site -selection audit trail:** Provide a dated and like-for-like audit trail for National Grid Substation Options 1, 2, 3, 4A and 4B, identifying the environmental, technical, operational, land-availability and other criteria applied at each stage; the evidence available when each decision was made; the role of landowner availability or willingness and competing development; and the reasons why the final Site 1B configuration was preferred.

- **Site and works reconciliation:** Provide a definitive coordinated plan reconciling the BESS Site, Work No. 2, Sub-Site 1B, Project Substation, National Grid Substation, overhead-line and grid-connection works, access arrangements, drainage, firewater infrastructure and mitigation land.

- **Application -document reconciliation:** Identify and reconcile any material differences between the Environmental Statement, Works Plans, Parameters Plans, Design Approach Document, outline management plans and draft DCO concerning the location, extent, dimensions, access, operation or mitigation of the BESS and Site 1 infrastructure, and confirm which document or control will ultimately govern each matter.

- **Deferred design and Rochdale -envelope controls:** Provide a compliance schedule identifying every material matter deferred to detailed design and linking it to the relevant ES worst case, DCO parameter or Requirement, approval process and method of verification.

- **Design -envelope and change control:** Identify the maximum parameters controlling the BESS, Project Substations, National Grid Substation and associated infrastructure and explain how subsequent changes in equipment, layout, dimensions, access, drainage or mitigation will be checked against the Environmental Statement. Where a proposed change would fall outside the assessed envelope, confirm what reassessment, consultation and approval would be required before it could proceed.

- **BESS safety and emergency response:** Demonstrate that the final site-specific fire and emergency strategy will provide adequate emergency access, firefighting-water supply, contaminated-firewater containment, drainage isolation, incident-command

arrangements, public-route management and post-incident environmental response.

- **Surface-water drainage, flooding and contaminated water:** Provide a coordinated Site 1/BESS/substation drainage strategy demonstrating the design basis, climate-change allowances, infiltration assumptions, exceedance routes, discharge arrangements and interaction with groundwater, together with the means by which potentially contaminated firefighting water will be isolated and prevented from entering groundwater, watercourses or neighbouring land.

- **Operational noise:** Demonstrate that cumulative operational noise from the BESS, Project Substation, National Grid Substation and associated plant will remain within the assessed envelope using the final equipment and layout, including appropriate acoustic-character corrections, cumulative night-time assessment and post-installation commissioning verification.

- **Private water supplies and groundwater:** Confirm the private-water-supply baseline and demonstrate the groundwater pathway assessment, intrusive investigation requirements, foundation and piling controls, monitoring and remediation arrangements wherever a credible pathway cannot be excluded.

- **Ecology and BNG:** Provide a single coordinated BESS/Site 1 ecology and biodiversity net gain schedule identifying habitat loss, species constraints, lighting and dark-corridor protection, ponds, hedgerows and movement routes, mitigation, compensation, licensing dependencies and long-term management.

- **Access and public rights of way:** Provide a final coordinated access and PRoW plan distinguishing construction, operational, emergency and permanent maintenance access, and demonstrate the need for, status, design and duration of the RB19/Hundred Lane crossing and any associated permanent access arrangements.

- **Construction phasing and traffic:** Provide a Scheme-wide worst-case construction programme showing the proposed phasing and any simultaneous works across Sites 1A–1D, Sites 2A–2C, the BESS, Project Substations, National Grid Substation, overhead-line works and cable/access works, together with the corresponding peak HGV and abnormal-load movements, routes, highway works, PRoW effects and responsibility for road-condition monitoring and remediation.

- **BMV agricultural land:** Quantify the BESS and substation use of Grade 2 and other Best and Most Versatile agricultural land and distinguish land capable of genuine restoration from land affected by permanent or retained infrastructure, foundations, access, drainage or other works.

- **Landscape, visual and heritage effects:** Provide receptor-specific assessment and appropriate verified visualisations demonstrating the combined effects of the BESS, Project Substations, National Grid Substation, overhead-line works and solar development at opening, after mitigation has established and following solar/BESS decommissioning, including the position where retained National Grid infrastructure remains.

- **Glint, glare and aviation:** Demonstrate, using the final or assessed worst-case panel parameters and layout, the Scheme-wide and cumulative glint-and-glare effects upon residential receptors, highways and aviation interests, including Norfolk Gliding Club,

and identify the controls securing any relied-upon mitigation.

- **Cumulative and in-combination effects:** Provide receptor-based schedules showing the combined effects of the BESS, substations, solar arrays and associated infrastructure upon the closest homes, key PRoWs, rural lanes, water receptors and heritage, landscape and ecological receptors, including overlapping construction and operational effects where relevant.

- **Monitoring and corrective action:** Provide a consolidated monitoring and verification schedule for all material operational commitments, including noise, groundwater and private water supplies, drainage, lighting, ecology, traffic and landscaping, identifying the monitoring standard, frequency, responsible body, reporting arrangements, trigger levels and corrective action where the assessed or permitted limits are exceeded.

- **Asset ownership and long-term responsibilities:** Provide a definitive asset-ownership and responsibility schedule distinguishing East Pye, NGET and any future operator for the BESS, Project Substations, National Grid Substation, grid connection, overhead-line works, access, drainage, landscaping and environmental mitigation, including responsibility during construction, operation, decommissioning and the period after the solar/BESS development has been removed.

- **Decommissioning and restoration:** Provide a definitive decommissioning and restoration schedule identifying what infrastructure will be removed, what will remain, the restoration standard for agricultural land and habitats, the treatment of foundations, cabling, roads and drainage, the parties responsible for carrying out those works and how delivery of the decommissioning and restoration obligations will be secured throughout the operational life of the Scheme.

- **Post-Year-60 position:** Confirm which infrastructure, access arrangements, drainage, landscaping and mitigation will remain after the approximately 60-year solar/BESS operational period and provide a post-Year-60 landscape, noise, access, environmental and operational statement addressing the retained National Grid infrastructure.

Concluding Request

BEPS-Great Moulton does not ask the Examining Authority or local residents to design the Scheme or to reconstruct the Applicant's case from dispersed documents. The Applicant, with NGET where relevant, should demonstrate through the coordinated information above that the BESS/Project Substation Site combined with Site 1 associated Grid Connection Infrastructure are sufficiently defined, justified, assessed and secured within an enforceable environmental envelope.

Where information remains dependent upon later detailed design, East Pye should identify the assessed worst case and the binding DCO control that prevents the eventual design, construction or operation from producing effects greater than those examined. Where the final NGET connection solution could materially alter the land, infrastructure or effects now before the Examination, East Pye should demonstrate that the present consent and land powers remain justified before those powers are granted.

Where East Pye relies upon mitigation, a design assumption, an indicative layout, a future management plan or a later approval process in order to reach a “not significant” or otherwise acceptable conclusion, East Pye should identify precisely where that safeguard is

secured, the assessment envelope within which it must remain, who is responsible for approving and implementing it, and how compliance will be demonstrated, monitored and enforced.

The central requirement is that East Pye and NGET (if appropriate) should demonstrate the final proposition they seek consent for, show that it remains within the assessed worst case, identify the mechanism by which each material safeguard is secured, and provide an auditable means of verifying compliance.

Chapter 1: Introduction

Existing Rural Landscape, Character and Amenity

The BESS/Site 1 locality is an established rural agricultural landscape between Great Moulton and the Tivetshalls, is a genuinely peaceful, open rural landscape characterised by working arable farmland, mature hedgerows and trees, open skies, long views, q uiet rural lanes, public rights of way and a sparse pattern of homes and historic buildings. The farmland, hedgerows and field margins provide ecological connectivity and habitat for species including bats, barn owls, brown hare, hedgehogs and farmland bir ds, while the lanes and rights of way provide direct public access to the countryside. The landscape also contributes to the setting of historic buildings and to the outlook and amenity of nearby homes.



The South Norfolk Landscape Assessment, E2: Great Moulton Plateau Farmland, recognises these characteristics: an elevated arable plateau with sparse settlement, expansive skies, long views, quiet lanes and historic features. Its landscape strategy seeks to conserve the area's open and unsettled character and specifically recognises the need to consider the effects of further tall structures. It also identifies the footpath network, quiet rural character, open views, historic halls and moats, mature hedgero w trees and plateau landform as important assets.

East Pye's own baseline likewise recognises the open plateau, long views and relatively tranquil, dimly lit rural context. [APP/6.1.3; APP/6.1.4; APP/6.1.7; APP/6.3.7.2]

Visual Showing residential properties in Lodge Road



The proposal would replace this predominantly agricultural setting with a substantial concentration of energy infrastructure, including the BESS compound and 400kV Project Substation infrastructure, with battery enclosures, electrical plant, busbars, access roads, fencing, security equipment, drainage and lighting. [APP/6.1.4; APP/7.5; APP/7.18]

In this open landscape, the relevant issue is the combined industrialising effect of that infrastructure over the Scheme's lifetime, rather than simply whether individual components remain within maximum design parameters or can eventually be partly screened..

BEPS does not argue that energy infrastructure is prohibited in the countryside. The National Policy Statements and Planning Act 2008 governs this NSIP and relevant National Policy Statements. However local planning policy evidence and the NPPF remain material to the assessment of siting, landscape character, heritage, biodiversity, residential amenity and mitigation.

Local evidence nevertheless identifies Great Moulton Plateau Farmland as sensitive because of its openness, expansive skies, historic features, historic features, quiet rural roads and sparse settlement. It is evidenced by major electricity infrastructure, whose tall structures would be conspicuous and introduce an overt human influence in such landscapes.

The Tivetshall locality is not a nationally designated landscape, but that does not make its character insignificant. Its open countryside, productive farmland, historic field pattern, hedgerows, quiet lanes, rights of way, heritage assets and relationship with the wider plateau remain material considerations. Planting and landscape buffers may reduce some visual effects over time, but they cannot recreate the existing open plateau landscape without altering its character, nor can planting necessarily remove effects associated with elevated electrical infrastructure, expansive skies, heritage settings, night-time character, tranquillity or views from roads, public rights of way and nearby homes. East Pye's reliance on buffers, planting and later detailed design should therefore be examined against this landscape's particular sensitivity. [APP/6.1.5; APP/7.17; APP/7.18; APP/7.20]

The 2026 NPPF also requires specific regard to landscape character and the intrinsic character and beauty of the countryside, hedgerows, biodiversity, tranquillity and the effects of artificial lighting on dark landscapes and amenity.

Visual over proposed BESS/Project Substation & The Cottage on Station Road



The question is not whether energy infrastructure is capable of being located in the countryside in principle. It is whether East Pye has justified this particular location and shown, with evidence capable of being enforced through the DCO, that the effects of the BESS and associated grid infrastructure are acceptable throughout construction, operation, battery replacement, emergency response and decommissioning.

The document therefore proceeds from a simple proposition: the Applicant should establish the case for the scheme it seeks permission to build. Local residents should not be required to reconstruct a safe design, identify every missing interface or prove a different site would work before East Pye has demonstrated why its own chosen design and location are appropriate.

The central issue for the ExA is therefore whether this sensitive rural location has been adequately justified and whether the combined effects of the BESS and 400kV infrastructure on landscape character, views, heritage setting, tranquillity, dark skies, rights of way, ecology and residential amenity can genuinely be mitigated over the development's lifetime.



Artist's impression of proposed East Pye Solar B.E.S.S. – Hundred Lane, Gt. Moulton

1.1. Landscape Permanence in The Tivetshalls/Great Moulton

One of the central concerns is the repeated description of East Pye as a broadly temporary and reversible development.

East Pye distinguishes between the approximately 60-year solar/BESS scheme and National Grid infrastructure that is intended to remain. That distinction is important because reversibility cannot be assumed for retained transmission assets, associated access and any mitigation that must continue beyond the BESS operational period.

That distinction matters.

An effect which ends because equipment is removed and agricultural land restored is fundamentally different from an effect created by major transmission infrastructure which remains beyond Year 60 with no equivalent decommissioning date identified.

East Pye should demonstrate or secure:

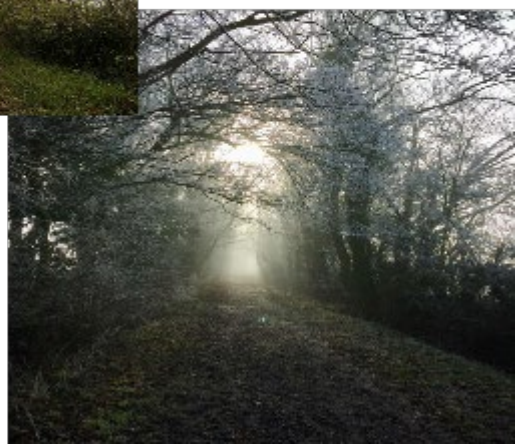
- **confirm the anticipated operational life and decommissioning status of the National Grid Substation and retained Grid Connection Infrastructure;**
- **identify all access roads, crossings, drainage features, security elements and landscape mitigation that would remain after BESS and solar decommissioning;**
- **assess the post -Year-60 landscape and amenity condition rather than treating the entire western cluster as one temporary development; and**
- **secure responsibility for the long -term maintenance of planting and other mitigation transferred to NGET or any successor operator .**

The Examining Authority should therefore be very cautious about accepting broad statements that the landscape change is "temporary" simply because the solar element has a 60-year design life. Sixty years is itself a profound inter-generational alteration of a rural landscape; but in this case even that is not the end of the effect. Part of the infrastructure is expressly retained beyond Year 60, and part of the access infrastructure is expressly identified as permanent.

APP/3.1 Draft Development Consent Order; APP/6.1.4 ES Chapter 4 – The Scheme; APP/6.1.7 ES Chapter 7 – Landscape and Visual; APP/6.3.7.9 PRoW Visual Amenity Assessment; APP/6.4 ES Non-Technical Summary; APP/7.3 Outline Decommissioning Environmental Management Plan; APP/7.4 Outline Landscape and Ecology Management Plan; APP/7.8 Outline PRoW and Permissive Paths Management Plan; APP/7.18 Design Principles, Parameters and Commitments; APP/7.26 Commitments Register.

1.2 Hundred Lane / Great Moulton RB19 - Permanent Haul Route and Maintenance Crossing





East Pye's own evidence contradicts the claim that Hundred Lane would remain unaffected. It identifies the lane as a historic, tree-lined rural route and Restricted Byway, largely unchanged since at least 1883–1884. The proposal would place it between the BESS and major 400 kV infrastructure, cross it with a construction haul route retained for permanent maintenance access, remove vegetation, introduce operational traffic, and materially alter its landscape setting and users'

East Pye's PRoW material identifies a haul-route crossing of RB19/Hundred Lane that is also described as permanent maintenance access. The source document records Applicant findings of Major Adverse and Significant effects during construction and at Year 1, with a Moderate Adverse and Significant effect remaining at Year 15. A permanent engineered crossing of a historic rural byway therefore requires its own necessity and alternatives case

East Pye should:

- **identify precisely which assets the permanent crossing serves and for how long;**
- **explain why the operational requirement cannot reasonably be met through existing or earlier access arrangements, including A03/Frith Way and the previously described Lodge Road/Frith Way approach;**
- **confirm whether the crossing is removed when the BESS and Project Substations are decommissioned or retained for National Grid infrastructure;**
- **provide the final width, surfacing, drainage, vehicle types and expected operational frequency; and**
- **explain when the permanent crossing entered the design and how the permanent change was consulted upon**

Principal Applicant evidence: *APP/6.1.4; APP/6.1.7; APP/6.3.7.9; APP/6.3.11.1; APP/7.3; APP/7.4; APP/7.6-7.8; APP/7.18; APP/7.20; APP/7.26.*

The Examination should not treat the The Tivetshall/Great Moulton/Wacton cluster as wholly temporary and reversible when the Applicant expressly confirms that major transmission infrastructure will remain. Nor should a permanent crossing of Hundred Lane/RB 19 be accepted without a clear explanation of its necessity, duration, alternatives, consultation history and relationship to the retained National Grid infrastructure.

Chapter 2 Environmental Impact

East Pye has submitted substantial environmental assessment material. The examination issue is whether the final BESS and Site 1 infrastructure will remain within the effects assessed, and whether the mitigation relied upon is sufficiently defined, secured and capable of verification. [APP/6.1.9; APP/6.1.16; APP/7.1; APP/7.5; APP/7.18; APP/7.26]

For groundwater and private water supplies, East Pye should demonstrate that the evidence available at consent, together with any post-consent investigation and detailed-design controls, is sufficient to support its conclusions of negligible or very small magnitude, Minor effects and Not Significant residual effects. This is particularly important for the BESS, National Grid Substation and Project Substations, where deeper or piled foundations may be required and where engineered drainage, batteries, transformers, oils and firewater controls are concentrated. [APP/6.1.9; APP/6.1.16]

2.1 Rochdale Envelope – Protecting Receptors Despite Design Flexibility

East Pye relies on a Rochdale Envelope and on design parameters that are to control later detailed design. Flexibility is acceptable only if the assessed envelope represents a realistic worst case and the DCO prevents later design choices from producing materially different or greater effects. [APP/6.1.2; APP/7.18; APP/3.1, Requirement 5]

East Pye should therefore demonstrate that the final BESS, substation, foundation, drainage, firewater, lighting and access designs cannot move outside the environmental envelope assessed in the ES.

What is stated explicitly that

“The Need For Flexibility Should Not Be Abused And Does Not Give Applicants An Excuse To Provide Inadequate Project Descriptions

2.2 Groundwater and Private Water Supplies

East Pye identifies 29 private water supplies or permitted abstractions within 1 km of the BESS, National Grid Substation and Project Substations, of which 19 are potentially active. It also identifies 53 within 250 m of PV arrays and cable routes, of which 44 are potentially active. The records contain uncertainty over matters such as exact location, duplication, depth and source aquifer. [APP/6.1.16; APP/6.3.16.1]

Where that uncertainty remains, East Pye should demonstrate that the assessment uses a sufficiently precautionary assumption, or verify the relevant supply location and source where reasonably practicable

2.3 Environment Agency Concerns

The Environment Agency identified insufficient ground and design information to exclude contaminant migration pathways created by deep or piled foundations and recommended further foundation risk assessment. East Pye proposes post -consent ground investigat ion and Foundation Works Risk Assessment (FWRA), with those measures secured through the CEMP framework. [APP/6.1.16; APP/7.1; APP/7.26]

East Pye should demonstrate that the final securing mechanism creates an effective hold point so that no relevant deep or piled foundation work proceeds until the necessary investigation, FWRA, mitigation and approval have been completed.

2.4 Groundwater Travel Times

East Pye did not adopt the Environment Agency's requested amendments concerning groundwater travel times around private water supplies. Instead, it retained the 1 km and 250 m assessment distances and explained why it considered the wider travel-time screening overly conservative. [APP/6.1.16]

East Pye should therefore justify that approach for the final design and demonstrate that a credible preferential pathway would not be excluded merely because a receptor lies outside a fixed screening distance.

2.5 Water Quantity Does Not Resolve Contamination Risk

The Water Resources Assessment addresses abstraction and water-resource matters, while the Water Environment and Ground Conditions assessments separately consider groundwater -quality risks from spills, foundations, transformer oils, drainage failure and contaminated BESS firewater. [APP/6.1.9; APP/6.3.9.3; APP/6.1.16]

East Pye should therefore demonstrate that its separate pollution -prevention and groundwater controls remain adequate for the final design. A conclusion on water quantity or new abstraction does not, by itself, resolve groundwater -quality risk.

2.6 Ground and Foundation Information Remaining Post -Consent

Material ground information is to be developed after consent, including intrusive ground investigation, a Phase 2 Ground Conditions Assessment where required, FWRA for the BESS, National Grid Substation and other structures requiring deep foundations or pi ling, and Hydrogeological Risk Assessment (HRA) where required for relevant trenchless crossings. [APP/6.1.16; APP/7.1; APP/7.26]

Post-consent assessment is not inherently unacceptable. East Pye should, however, demonstrate that each required assessment is completed before the work to which it relates and that the approval process can require additional mitigation or design change wh ere the results justify it.

2.7 BESS and Substations– Integrated Groundwater Protection

East Pye's submitted documents contain specific controls for the BESS and substations, including lined drainage, isolation arrangements, containment of contaminated firewater, transformer bunding and later detailed BSMP and drainage design. [APP/6.1.9; APP/6.3.9.1; APP/7.5]

The DCO also provides separate controls through detailed design, the BSMP, drainage and CEMP requirements. [APP/3.1, Requirements 5, 6, 11 and 13]

East Pye should demonstrate that these controls operate together for the final layout and that no gap arises between foundation, drainage, pollution -control and emergency -response measures.

2.8 Private Water Supply Verification and Monitoring

The Applicant's consultation response states that there will be 'appropriate engagement where required', but does not itself evidence a completed programme of physical

verification or baseline water-quality monitoring for every potentially affected private supply. [APP/5.11]

East Pye should identify which supplies remain within a credible effect pathway, verify their location and source where reasonably practicable, and explain whether monitoring is required.

Where a credible pathway cannot be excluded after detailed assessment, East Pye should secure proportionate baseline and follow-up monitoring together with appropriate incident-response and contingency arrangements.

2.9 Certainty Before Foundation Works

Requirement 13 secures approval of a CEMP before the relevant part of the authorised development commences, while the Outline CEMP and Commitments Register provide for FWRA before relevant foundation works. [APP/3.1, Requirement 13; APP/7.1; APP/7.26]

East Pye should demonstrate that this combination creates a clear and enforceable pre-works hold point for any deep or piled foundations that could create a groundwater pathway.

The Applicant's Minor/Not Significant conclusions, and the negligible or very-small magnitudes on which they rely, should only be relied upon if those controls demonstrably preserve the assessed envelope.

2.10 Overall Groundwater and Private Water Supply Requirement

The Water Environment assessment treats private water supplies within 1 km as Very High sensitivity, while the Ground Conditions assessment also identifies highly sensitive aquifer receptors and adopts a 1 km study area for the BESS and substations because piling may be required. [APP/6.1.9; APP/6.1.16]

East Pye should demonstrate that the final design and secured controls are capable of preventing unacceptable effects from contaminant pathways created by foundations, construction or operational pollution, drainage or containment failure, and contaminated BESS firewater.

Where material uncertainty remains, East Pye should demonstrate that the relevant works cannot proceed until that uncertainty has been investigated, assessed and satisfactorily controlled.

2.11 Hawkchurch BESS Appeal– Relevance to Receptor Protection

The Hawkchurch BESS appeal (APP/U1105/W/25/3369854) was dismissed on 13 August 2026. One of the principal issues was whether fire-safety and pollution-control measures would be sufficient to prevent pollution of aquifers and protect groundwater quality with regard to local residents. The Inspector concluded that the evidence was not sufficiently robust to be confident that the firewater pollution controls would be adequate.

BEPS does not suggest that Hawkchurch establishes that East Pye would cause the same effects. Its relevance is narrower: where a BESS relies on fire-safety, drainage and containment measures to protect groundwater, the adequacy of those measures must be demonstrated by sufficiently robust, scheme-specific evidence rather than assumed or left unresolved.

East Pye should demonstrate or secure:

- which private water supplies remain within a credible effect pathway, verifying location and source where reasonably practicable and otherwise applying a suitably precautionary assumption;
- why the retained 1 km/250 m screening approach, including the decision not to adopt the Environment Agency's groundwater travel -time amendments, remains protective for the final design and any credible preferential pathway;
- an enforceable pre -works sequence so that the necessary ground investigation and FWRA are completed before relevant deep or piled foundation works, and any required HRA is completed before the trenchless crossing to which it relates;
- final BESS and substation foundation, drainage, containment and firewater arrangements that remain within the assessed environmental envelope and are secured through the applicable DCO requirements and approved management plans; and
- where a credible pathway to a private supply cannot be excluded after detailed assessment, proportionate baseline and follow -up monitoring, with clear incident -response and contingency arrangements.

Key Applicant documents checked: APP/6.1.2, APP/6.1.9, APP/6.1.16, APP/6.3.9.1, APP/6.3.9.3, APP/6.3.16.1, APP/7.1, APP/7.5, APP/7.18, APP/7.26, APP/5.11 and APP/3.1. Hawkchurch comparator: Planning Inspectorate appeal decision APP/U1105/W/25/3369854, 13 A ugust 2026.

2.12 Ecology and Biodiversity – BESS/Site 1 Specific Transparency

The BESS and Site 1 should not be treated ecologically in the same way as the solar-array areas. This part of the Scheme would introduce a concentrated area of BESS equipment, substations, hardstanding, permanent access, security fencing, drainage infrastructure and operational lighting into an existing agricultural landscape formed by interconnected hedgerows, trees, ponds, ditches and field margins. East Pye's own BNG documentation recognises this distinction by classifying BESS post-development habitat as "Urban – Developed land, sealed surface". Pasted markdown

East Pye has undertaken extensive Scheme-wide ecological surveys. The Examination issue is therefore not whether ecological work exists, but whether East Pye has demonstrated clearly and specifically what the BESS/Site 1 hard-infrastructure cluster would affect, what mitigation is necessary, and whether that mitigation remains effective once the final BESS and substation designs are fixed. At present, the relevant evidence is distributed between the ES, species appendices, BNG material, management plans and design commitments rather than being presented as a single auditable BESS/Site 1 assessment.

Protected species evidence should be reconciled specifically to the BESS/Site 1 area

The same difficulties arise with the protected species evidence, BEPS would request for transparency and traceability, not for East Pye to repeat work already completed.

A consolidated schedule would allow the Examining Authority to test the local baseline, habitat loss, species constraints, mitigation, BNG consequences and long -term controls without having to reconstruct that position from numerous separate documents. and whether the necessary mitigation is clearly secured

Bats, Barbastelle and Dark Corridors

The ecological constraints are material. East Pye records widespread bat activity, including high barbastelle activity across the wider survey area, making the protection of hedgerows, woodland edges and genuinely dark commuting and foraging corridors impo rtant when the BESS and substations would introduce security, maintenance and potentially emergency lighting. East Pye must therefore demonstrate not simply that lighting will be controlled in principle, but that the final luminaire locations, heights, tri ggering arrangements and maximum spill levels will preserve the dark corridors and habitat assumptions relied upon in the ES.

Breeding Birds

East Pye's surveys identify breeding and farmland birds of conservation concern across the Scheme, including species dependent on open arable land, hedgerows, field margins and nearby buildings. The ES records significant use of the site by breeding birds, including 81 skylark territories, 70 within areas subject to permanent development, and recognises displacement and habitat loss from the BESS, substations and solar infrastructure. [APP/6.1.8; APP/6.3.8.4; APP/7.4]

East Pye should therefore demonstrate, specifically for the BESS/Site 1 footprint, which breeding territories and supporting habitats would be lost, displaced or disturbed by construction and operation, and where equivalent replacement or compensatory habi tat will be provided and secured for the lifetime of the development. Scheme -wide

mitigation should not obscure the local ecological effects of converting open farmland and associated habitat to permanent or long-term energy infrastructure.

Great Crested Newts and Ponds

Great crested newts, ponds and terrestrial habitat also require clear spatial protection. East Pye relies on 50 m buffers around known or unsurveyed GCN ponds and 30 m buffers around ponds demonstrated negative by survey. Those buffers need to be reconciled directly with the final locations of access roads, drainage, fencing, hardstanding, substations and other infrastructure. The same principle applies to badgers and other terrestrial species: where extensive permanent security fencing is proposed, East Pye should demonstrate where existing movement routes occur and how permeability will be maintained through appropriate gaps or passages.

Hedgerows, Trees and Ecological Connectivity

Ecological connectivity is particularly important because the local habitat functions as a network rather than as isolated features. Hedgerows, mature trees, ditches, ponds and field margins provide connected habitat through the Site 1/BESS locality. East Pye should therefore identify which features would be retained, removed, crossed or illuminated and demonstrate that their ecological function would continue throughout construction and operation. Particular attention should be given to the proposed works at Hundred Lane, where alteration of established boundary vegetation and the haul-road crossing may affect both ecological connectivity and the rural landscape corridor.

Drainage, Pollution and BESS Firewater

Ecological assessment should be integrated with the drainage and BESS safety strategy. Ponds, ditches, groundwater-connected habitats and downstream receptors may provide credible pathways for contaminated runoff or firewater.

East Pye proposes isolation of the drainage system following a fire, testing of retained water and off-site removal where contamination is identified. East Pye should therefore demonstrate that the proposed containment capacity is sufficient, identify the ecological receptors and pathways protected by those measures, and explain the safeguards available if valves, penstocks or other containment measures fail.

Rural Habitat Conversion and Hard Infrastructure

East Pye's BNG documentation classifies BESS post-development habitat as “Urban – Developed land, sealed surface”, with substations, access and associated infrastructure also reflected within the post-development assumptions. [APP/7.23; APP/7.24]

East Pye should therefore identify clearly the habitat loss and conversion attributable specifically to the BESS/Site 1 infrastructure cluster, the ecological functions affected, and the mitigation or compensatory habitat relied upon.

A Scheme-wide BNG result does not remove the need for transparency at Site 1. East Pye should provide a BESS/Site 1-specific account showing the local habitat debit, the compensatory habitat relied upon, where it will be delivered and how its establishment and long-term management are secured.

Replacement and Decommissioning

Ecological protection should extend throughout the operational life of the development. Battery replacement, augmentation and decommissioning may involve renewed vehicle movements, lighting, ground disturbance and works close to habitats that may have changed or become newly occupied.

East Pye should therefore secure proportionate ecological checks and, where necessary, updated surveys before substantial replacement, augmentation or decommissioning works, rather than relying solely on the original construction baseline.

East Pye should demonstrate or secure:

- **a single BESS/Site 1 ecological schedule identifying local receptors, habitat losses, protected -species constraints, mitigation, compensation, monitoring and long-term management;**
- **a coordinated constraints plan showing ponds and buffers, hedgerows, trees, ditches, ecological corridors, fencing, access, drainage and lighting;**
- **confirmation that the final BESS, Project Substation, access, drainage and lighting arrangements remain within the ecological effects assessed in the ES;**
- **a BESS/Site 1-specific BNG account identifying the local habitat debit, compensatory habitat, delivery location and management mechanism;**
- **integration of the firewater and drainage strategy with mapped ecological receptors and pollution pathways;**
- **protection of ecological connectivity affected by permanent access or infrastructure works; and**
- **ecological review and, where necessary, updated surveys before major replacement, augmentation or decommissioning works.**

The issue is not whether East Pye has undertaken ecological surveys. It is whether East Pye has demonstrated, for the **BESS/Site 1 hard-infrastructure cluster** , what ecological effects arise, how they will be mitigated throughout the development's life, and how each measure relied upon is secured and capable of verification. [APP/6.1.8; APP/6.3.8.1–8.10; APP/7.1–7.4; APP/7.23–7.25]

2.13 Telecommunications and Emergency Communications

Residents, emergency services and people reliant on telecare require reliable communications throughout construction and operation.

Shallow fibre and other telecoms infrastructure may be vulnerable to excavation, access works and construction activity. Reliable communications are also important for emergency response to the BESS and substations.

East Pye identifies telecommunications infrastructure within the Order Limits. [APP/6.2.18.1; APP/6.1.18]

East Pye should demonstrate where BESS/Site 1 works interact with vulnerable telecoms assets, how those assets will be protected or diverted, and what rapid repair and emergency communication arrangements will apply if service is disrupted.

2.14 Utilities and Essential Services

The BESS/Site 1 locality is a concentrated infrastructure node in which high -voltage plants, cable corridors, drainage, access and emergency response interact with existing utilities and telecommunications. A Scheme -wide utilities plan is useful, but East Pye should make the interfaces at this cluster directly auditable

East Pye should provide a BESS/Site 1 utilities schedule identifying affected apparatus, protection or diversion measures, statutory undertaker requirements and responsibility for maintaining service continuity.

2.15 Climate Change and Resilience

The BESS, substations and emergency systems must remain safe and effective under future climate conditions.

East Pye identifies battery replacement as a major lifecycle emission source, approximately **1,034,103 tCO2e**, while a potential BESS saving of approximately **957,849 tCO2e** sits outside the principal GHG assessment. SF6-containing equipment is also proposed, but lifetime fugitive emissions are not quantified.

East Pye should demonstrate that the final design remains robust in relation to:

- battery replacement and charging assumptions;
- SF6 leakage;
- extreme heat and cooling demand;
- drought and firefighting-water availability;
- climate-adjusted drainage and firewater containment; and
- resilience of the BESS, substations and emergency access.

These matters should be sufficiently defined and secured before the climate conclusions are relied upon.

2.16 Listed Buildings, Rural Setting and Residential Receptors



Friends Meeting House

East Pye assesses designated heritage assets, including Barn Cottages, Moulton Farmhouse and other listed buildings in the wider locality. The Examination should distinguish heritage significance from residential visual amenity: a conclusion of limited heritage harm does not automatically establish that the same infrastructure has no important effect on the outlook, tranquillity or living conditions of nearby homes.



Walk Farm Listed

The source document also raises the vulnerability of older timber-framed, clay-lump and traditionally constructed buildings to vibration, settlement and heavy construction traffic. Where a credible risk exists, the Applicant should identify the buildings, appropriate vibration limits and the need for pre-construction condition surveys and monitoring.

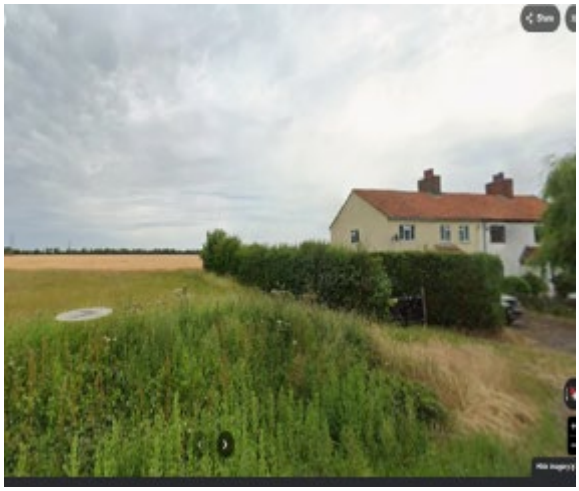
East Pye should:

- **demonstrate the combined BESS/substation effect on the closest residential and heritage receptors, including duration before mitigation becomes effective;**
- **identify any vulnerable older buildings within the relevant influence area;**
- **secure proportionate condition surveys and vibration monitoring where required; and**
- **provide a clear response and remediation procedure if damage attributable to construction occurs.**

Station Road - B1134 - Homes opposite the proposed BESS Site and Project Substation



The Cottage



Fernleigh Cottages

current view from these homes on Station Road B1134 which is the proposed location of the Project Substation and BESS site.



Chapter 3 The Order Limits - Site and Surroundings



The principal receptors are the communities of **Tivetshall St Margaret, Tivetshall St Mary, Great Moulton and Wacton**, together with nearby homes, farms, heritage assets, PRoWs, rural lanes, agricultural land, drainage features and the wider landscape. These receptors are vulnerable because the area is predominantly **open agricultural countryside**, characterised by scattered development, narrow rural roads, public rights of way, open views and a generally tranquil rural setting.

East Pye identifies:

- Site 1 (Sub-Sites 1A–1D) – approximately 73.6 ha;
- The BESS Site – approximately 22.90 ha ;
- Site 1 (Sub-Sites 1A–1D) – approximately 73.6 ha;
- Site 2 (Sub-Sites 2A–2C) – approximately 99.9 ha.

ES Chapter 3 defines a separate 22.90 ha BESS Site, while ES Chapter 4 describes Work No. 2 as the BESS compound "contained within Sub-Site 1B". The relationship between these descriptions is not sufficiently clear.
[APP/6.1.3; APP/6.1.4; APP/2.2; APP/2.3; APP/3.1]

East Pye should provide a definitive combined plan identifying the BESS Site, development compounds, authorised works, access routes, PRoWs, environmental buffers and nearby receptors.

3.1 Site Envelope and Development Footprint

East Pye identifies a BESS Site of approximately 22.90 ha, while the operational BESS compound and 400 kV Project Substation occupy only part of that area. The remainder may be required for access, drainage, firewater, security, ecological mitigation and landscaping. The Applicant should define the purpose of each part of the land rather than relying on a large undifferentiated envelope.

The land is predominantly **BMV Grade 2 agricultural land**, increasing its sensitivity to permanent or extensive infrastructure.

East Pye should:

- provide a definitive combined plan showing the BESS Site, Work No. 2, Sub-Site 1B, Project Substation, National Grid infrastructure and adjoining mitigation land;
- identify land required for operational plant separately from land reserved for drainage, firewater, ecology, landscape mitigation and access;
- confirm that the Works Plans, Land Plans, draft DCO and Environmental Statement use consistent spatial definitions; and

- show that all assessed offsets and buffers are protected from later encroachment by detailed design.

East Pye should clearly identify which land is required for operational development and which will remain undeveloped or be secured for landscaping, ecology, drainage and mitigation. The final layout should preserve all assessed offsets and environmental buffers.

3.2 Relationship with Tivetshall St Margaret, Great Moulton and Nearby Homes

The surrounding fields presently form part of the rural setting and physical separation between settlements and scattered homes. The relevant visual and amenity question is therefore the combined relationship between residential receptors and the whole infrastructure cluster, not simply the shortest distance to one individual component.



Gt. Moulton (North)

East Pye's proposals introduce the BESS, Project Substation, solar infrastructure, fencing, access and associated equipment into this presently agricultural setting.

East Pye should:

- **provide clear receptor plans showing distances to the final BESS, substations, fencing, access and other operational infrastructure;**
- **demonstrate how landscape mitigation, noise control, lighting limits and emergency safeguards protect the closest homes; and**
- **assess the effect of the cluster on perceived rural separation between Great Moulton and the Tivetshalls.**

East Pye should demonstrate, through its ZTV, residential receptor assessment and verified visualisations, the effects on the closest properties and explain how setbacks, planting, lighting controls and other mitigation will protect residential and landscape amenity.

Visual Showing Views from The Cottage, Station Road across the Proposed 400kV substation and BESS towards Hundred Lane



Visual Showing Views from Hundred Lane across the Proposed 400kV substation and f BESS towards Station Road



3.3 Rural Roads, Access and Public Rights of Way

Residents, walkers, cyclists, horse riders, farmers and heritage receptors depend upon the rural character and accessibility of the surrounding countryside.



The local network includes narrow rural roads, ditches, bends, restricted byways and PRoWs used by residents, farmers, walkers, cyclists and horse riders. East Pye should demonstrate that the final access strategy is safe and proportionate and that any permanent road or crossing works are justified by an identified operational requirement.

East Pye should:

- **identify all temporary and permanent access routes and highway works on one coordinated plan;**
- **show where widening, passing places, vegetation removal, drainage alteration or visibility works are required;**
- **demonstrate protection for vulnerable road users and PRoW users during construction and operation; and**
- **secure reinstatement where works are temporary and a clear necessity case where works are permanent.**

Principal Applicant evidence: APP/6.1.3; APP/6.1.4; APP/6.1.11; APP/6.2.18.1; APP/6.3.11.1; APP/7.6-7.8; APP/2.2; APP/2.3; APP/3.1.

East Pye should demonstrate the combined relationship between these receptors and the proposed infrastructure rather than relying solely upon assessments of individual components.

3.2.4 Proximity of Development to Homes

Nearby homes, particularly around Tivetshall St Margaret, Lodge Road, Station Road and Hundred Lane, are vulnerable because of their proximity to the proposed BESS, substations and solar development.

The surrounding fields presently provide open views and physical separation between homes, villages and infrastructure. The proposed development would introduce BESS equipment, substations, solar arrays, fencing and related works across several adjoining land parcels.

Visual Showing Proximity of BESS/Solar Panels /National Grid & 2 x 400Kv substation to residential properties in Lodge Road



3.3 Rural Roads, Access and PRoWs



Residents, farmers, walkers, cyclists and horse riders rely on a network of narrow rural lanes that also provide access to homes and agricultural land.

East Pye should demonstrate that the proposed access strategy can operate safely alongside existing users, identify where widening, passing places or other highway works are required, and secure appropriate protection for pedestrians, cyclists, riders, dra inage features and PRoWs.

3.4 Examination Requirement

The key issue is the **combined relationship between the Order Limits, the infrastructure that may be constructed within them and the surrounding receptors** .

BEPS submits that East Pye should provide a single coordinated plan showing:

- **the BESS Site and development footprint;**
- **BESS and Project Substation compounds;**
- **National Grid and other substation infrastructure;**
- **solar development and cable connections;**
- **permanent and temporary access routes;**
- **PRoWs;**
- **residential and heritage receptors; and**
- **secured landscape, ecological, drainage and safety buffers.**

This would allow the Examining Authority and local communities to understand clearly what development is authorised, where it may be located and how the surrounding receptors will be protected.

Chapter 4: The Scheme - BESS and the Project Substation

The BESS Site accommodates a substantial battery compound and the 400 kV Project Substation together with access, electrical, drainage, security and safety infrastructure. The Examination should test the development that the DCO would authorise, not merely an indicative layout.

East Pye identifies a **22.90 ha BESS Site**, together with substantial associated electrical infrastructure. However, important elements of the final BESS and Project Substation design remain subject to detailed design.

The Examination should therefore establish not simply whether an indicative design has been assessed, but whether **every development capable of being authorised by the DCO would remain within the environmental and safety effects assessed** .

4.1 BESS Site and Work No. 2

The source document records assessed BESS enclosure heights up to 3.5 m, security fencing up to 3 m, operational access roads generally 4.5-6 m wide and foundation options including piles to approximately 12 m. The Project Substation may occupy up to appro ximately 3 ha and include equipment up to 13 m to the top of busbars. These parameters demonstrate that the BESS Site is a major engineered compound rather than a lightly developed agricultural use..

East Pye should provide:

1. **a definitive plan identifying the BESS Site, Work No. 2, Sub -Site 1B and associated infrastructure;**
2. **a parcel-by-parcel explanation of the purpose of the land within this area; and**
3. **confirmation that the Works Plans, DCO and environmental assessments all rely upon the same spatial boundary.**

4.2 Scale and Physical Infrastructure

Residents and landscape receptors are potentially affected by substantial industrial infrastructure within a predominantly rural setting.

BESS ELEMENT	EAST PYE PARAMETER
*(The assessed parameters include BESS enclosures up to **3.5 m high**, 3 m security fencing, operational access roads and foundations extending to piles of up to **12 m below ground**.)*	
BESS enclosure height	Up to 3.5 m
BESS control building	Up to 6 m long, 2.5 m wide and 3.5 m high
Fencing	3 m palisade fencing, with CCTV
Operational access	4.5 m to 6 m wide; up to 8 m at passing places
Foundations	Reinforced concrete base up to 1 m deep, or piles up to 12 m below ground with 1 m pile cap
Surfacing	Levelled platform; each unit on a concrete base

PROJECT SUBSTATION IN THE BESS SITE 400KV	
*(The associated 400 kV Project Substation may occupy up to approximately **3 ha**, with equipment reaching **13 m to the top of the busbars**, together with transformers, switchgear, buildings, fencing and access infrastructure.)*	
Maximum compound area	3 ha / approx. 7.4 acres
Maximum height	13 m to the top of the busbars
Relay and control room	Up to 7 m by 19 m, 4.2 m high
33 kV switch room	Up to 7 m by 19 m, 4.2 m high
Fencing	m palisade fencing plus 2.5 m deer-type wire mesh wooden post fencing outside
Access	Up to 6 m wide, hardcore or gravel over levelling
layeFoundations	Concrete base/monolith plinth up to 1 m deep or piles up to 12 m deep
Transformers/Switchgear	Gas-insulated or air-insulated

East Pye should demonstrate that the final layout remains within these assessed limits and that its combined landscape, noise, drainage, ecological and residential effects have been assessed as part of the wider infrastructure cluster rather than as isolated components.

4.3 Detailed Design - Rochdale Envelope

Important design matters remain for later determination, including final battery technology and chemistry within the assessed envelope, manufacturer and enclosure selection, detailed layout and spacing, cooling, fire detection and suppression, manufacturer -specific fire -test evidence, final firewater hydraulics, aspects of plume analysis and the Emergency Response Plan. Flexibility is acceptable only if these choices cannot enlarge the assessed environmental or safety envelope.

East Pye should demonstrate or secure:

- link each deferred design choice to a maximum parameter or worst -case ES assumption;
- final battery and enclosure specifications that remain within the tested and modelled safety envelope
- •identify the approval body and consultation requirement for each deferred matter;
- require manufacturer -specific evidence before operation where the final technology materially affects safety, noise or fire behaviour; and
- provide a compliance schedule showing how final design will be checked against the assessed envelope.
- post -incident inspection, deposition/clean -up and environmental monitoring where required by the final consequence assessment.
- Final infrastructure definition – a coordinated parcel -by-parcel schedule and plan for Sub -Sites 1A–1D and the BESS Site identifying the BESS, Project Substations, National Grid Substation, pylon works, cables, drainage, access, fencing and other permanent and temporary infrastructure by Work Number, location, dimensions and duration.
- Operational noise control – a final cumulative acoustic design demonstrating that the selected BESS, inverter, transformer and substation plant remains within the assessed noise envelope, including night -time operation, acoustic character, mitigation, comm issioning, monitoring and corrective action.
- Lighting and dark -sky protection – a final operational lighting scheme identifying fixed, emergency and sensor -controlled lighting, switching arrangements and ecological and dark -sky safeguards.
- Construction controls – a coordinated construction layout identifying compounds, laydown areas, haul routes, welfare facilities, temporary fencing and lighting, vegetation removal and visibility -splay works.
- Drainage and firewater containment – a final strategy demonstrating how potentially contaminated drainage or firewater would be isolated, contained, tested and removed, including safeguards against failure of penstocks, shut -off valves or other containment systems.

- Combined-effects verification – confirmation that the final design remains within the assessed environmental and safety envelope for residential amenity, public rights of way, landscape and visual effects, tranquillity and dark skies, ecology, traffic and access, drainage and groundwater, agricultural land and cumulative effects.

Where a matter remains deferred, East Pye should identify the approval mechanism, consultation requirements, compliance criteria and verification process that will ensure the final Scheme cannot materially exceed the effects assessed at Examination. The issue is whether the final design is sufficiently defined and controlled to ensure that the assumptions and mitigation relied upon in the Environmental Statement are carried through into construction and operation.

Use of a Rochdale Envelope is not itself objectionable. The important issue is whether the DCO prevents later design choices from producing effects greater than those assessed.

4.4 BESS Safety and Emergency Response

The Outline Battery Safety Management Plan [APP/7.5] addressing thermal runaway, fire, explosion, electrical hazards, toxic-gas release, reignition, emergency access, firefighting water and contaminated-runoff containment. The document provides an important assessment framework, but it is based on a concept BESS rather than the final equipment, layout and operating system that would ultimately be installed.

The final battery chemistry, equipment specification, enclosure design, spacing, fire behaviour and emergency arrangements therefore remain matters for detailed design. East Pye should consequently bear the responsibility for demonstrating, before construction and operation, that the final BESS remains within the safety and environmental parameters assessed during the Examination.

East Pye should demonstrate or secure:

- the final battery technology and configuration present risks no greater than those assessed in APP/7.5;
- final equipment spacing and fire-separation arrangements are supported by appropriate large-scale fire testing and consequence modelling;
- site-specific plume modelling using the final equipment and thermal-runaway data demonstrates compliance with the relevant public-health criteria;
- emergency access, isolation, firefighting and post-fire monitoring arrangements are practicable for the final layout;
- firefighting water and potentially contaminated runoff can be fully contained, isolated and removed without unacceptable risk to groundwater, surface water, soils or ecological receptors; and
- the detailed Battery Safety Management Plan and Emergency Response Plan incorporate all measures necessary to address the final design and are agreed with the relevant emergency and environmental authorities.
- demonstrate that final cell chemistry, enclosure arrangement and spacing are no worse than the safety case examined;

- confirm the standards and guidance against which the final BESS will be designed, approved and independently verified.
- secure fire detection, isolation, suppression and emergency shut -down measures appropriate to the selected technology;
- demonstrate sufficient firefighting -water availability and contaminated - firewater containment, including credible failure modes;
- provide appliance access, turning, rendezvous and incident -command arrangements agreed through the relevant approval process;
- identify warning, exclusion and PRoW management measures where modelled consequences may affect public routes; and
- secure post -incident inspection, testing, clean -up and environmental monitoring where required.

BEPS does not contend that battery safety has been ignored or that toxic exposure to residents is a predicted effect. The issue is that East Pye should not be permitted to rely upon an assessment of an illustrative BESS while leaving material safety characteristics to later selection without demonstrating that the final development remains within the assessed envelope. The burden should rest with East Pye to prove that the system ultimately installed is no worse, in safety and environmental terms, than the system assessed at Examination.

Appendix 1 - *The NFCC guidance*

The Navenby BESS material relevance as an external illustration of why battery spacing, fire propagation and firewater containment can materially affect community and environmental safety.

4.5 Operational Noise in a Very Quiet Rural Environment

The BESS and substations introduce continuous or recurrent plant noise from transformers, inverters, cooling equipment and associated electrical plant into a rural sound environment in which the source document records very low background levels, including periods below 25 dB. In such conditions, acoustic character - including tonality or other distinctive features - can matter as much as the numerical A-weighted level.

East Pye's assessment uses an indicative or example plant because final equipment is not yet selected. Conservative assumptions are used in some respects, but later manufacturer choice, layout, cooling duty and attenuation may materially affect the result. The final installed plant should therefore be checked against the assessed cumulative noise envelope rather than assumed to comply because an indicative model did so.

East Pye should:

- provide a final plant schedule and acoustic model based on the equipment actually selected;

- ·assess combined BESS and Project Substation noise at the same receptors, including relevant BS 4142 acoustic character corrections;
- demonstrate compliance during the quietest relevant night -time periods and under credible operating conditions;
- secure any barriers, enclosures, low -noise equipment or operational controls necessary to achieve the assessed outcome; and
- establish a verification and complaint -investigation mechanism after commissioning.

4.6 BESS Replacement and Augmentation During Operation

East Pye anticipates battery maintenance, replacement and supplementation during the operational period but does not fix a 60-year replacement timetable. The uncertainty is understandable, but the environmental consequences of large-scale replacement - HGV movements, handling, waste, temporary storage, fire risk, noise and ecological disturbance - should remain bound by the consented envelope.

The remaining issue is that the application does not identify the likely frequency or scale of replacement or augmentation activity, or demonstrate separately how associated traffic, handling, waste, storage, fire and pollution effects would remain within the Environmental Statement assumptions.

East Pye should:

- identify the replacement assumptions used in the ES and GHG assessment;
- secure traffic, handling, waste, recycling, temporary storage and fire/pollution controls for replacement campaigns;
- require review if the frequency or scale of replacement materially exceeds the assumptions assessed; and
- ensure substantial replacement works remain subject to relevant ecological and environmental checks.

The relevant consideration is not whether East Pye can predict an exact replacement cycle now, but whether foreseeable replacement and augmentation throughout the operational life of the BESS remain within the traffic, noise, waste, safety and environmenta l envelope examined and secured by the DCO.

Principal Applicant evidence: APP/6.1.2; APP/6.1.4; APP/6.1.6; APP/6.1.12; APP/7.2; APP/7.5; APP/7.18; APP/7.26. The source document also relies on an independent acoustic review reproduced as Appendix 2.

Chapter 5: Reasonable Alternatives, Site Selection and Design Evolution

Evolution

A planning examination does not require local communities to design an alternative BESS for the Applicant. East Pye should provide the evidence that explains why the chosen BESS location and configuration represent a justified outcome when environmental co nstraints and reasonable alternatives are considered together.

5.1 The BESS-Specific Site Selection Issue

East Pye's Site Selection Assessment and design evolution material explain the wider solar and grid siting process and the value of proximity to the point of connection. The source document's concern is narrower: the BESS is a risksensitive and land-inten sive component, yet the route from wider grid proximity to this particular BESS parcel is not presented as a transparent like -for-like comparison of reasonable BESS locations.

East Pye should #demonstrate or secure:•

identify the reasonable BESS locations considered within or outside the wider Scheme;

- **set out the criteria used to compare them, including homes, groundwater, private supplies, emergency access, ecology, BMV land, landscape, heritage and noise;**
- **explain why co -location benefits outweighed the environmental disadvantages of the chosen parcel; and**
- **explain whether a smaller BESS, different configuration, solar -only scheme or off -site/network storage option was considered and, if not, why not.**

5.2 Point of Connection and Co-location

Grid proximity and electrical efficiency are legitimate planning considerations. They do not, however, answer the separate question of whether the final siting of battery storage and project substation infrastructure has avoided or reduced harm so far as reasonably practicable. East Pye should distinguish engineering convenience from environmental preference and explain the weight given to each.

5.3 Design Evolution: Mitigation after Selection versus Avoidance

The BESS design was later refined through setbacks and mitigation addressing flooding, screening, residential amenity, fire safety and noise. Those changes may be beneficial, but they also identify constraints that were known or became apparent after the location had been selected. The Applicant should demonstrate that the mitigation-led design remains preferable to reasonable alternatives that could avoid the constraint at source.

5.4 Access Design Evolution

The access strategy has evolved, including the relationship between Station Road, Lodge Road/Frith Way, existing access A03 and the permanent RB19/Hundred Lane crossing. Any permanent new crossing or road alteration should be supported by a clear chronology, operational need and alternatives assessment.

5.5 Consistency of the Scheme Description

Site selection can only be scrutinised if the selected site is spatially clear. East Pye should therefore reconcile the description of a separate BESS Site with Work No. 2 "contained within Sub-Site 1B" and confirm exactly which land was subject to the site-selection and alternatives reasoning.

Principal Applicant evidence: APP/7.17; APP/7.18; APP/7.20; APP/6.1.3-6.1.5; APP/2.2; APP/2.3; APP/3.1; APP/6.3.11.1; APP/7.6; APP/7.7.

East Pye should therefore provide a concise and auditable account of the reasonable alternatives actually studied and the principal reasons for selecting the proposed locality.

5.3 Design Evolution and Co-location

Residents and the surrounding rural environment experience the BESS, Project Substations, National Grid infrastructure and associated works as one infrastructure cluster, irrespective of their separate Work Numbers or ownership.

The Stage 3 design introduced or refined an approximately 200 m separation from the nearest residential property in response to fire-safety and noise considerations. Surface-water constraints affected the developable BESS area, while buffers and woodland-connectivity measures were incorporated into the evolved design. [APP/6.1.5; APP/7.17; APP/7.18; APP/6.3.9.1; APP/7.4; APP/7.5]

These changes show that the selected locality contains material constraints. Co-location may provide engineering advantages and shorter connections, but it also concentrates the BESS, Project Substations, National Grid infrastructure and associated works in one rural locality. Residents and other receptors experience that infrastructure together, not by individual Work Number.

The Great Moulton Plateau Farmland is itself identified as susceptible to battery storage, substations and high-voltage infrastructure. [APP/6.1.7; APP/6.3.7.2]

East Pye should therefore demonstrate that the environmental disadvantages of concentrating this infrastructure at Site 1 were weighed alongside the engineering advantages of co-location.

5.4 Definition of the BESS and Site 1 Infrastructure

Affected communities require a clear definition of the development whose effects they are being asked to accept. ES Chapter 3 identifies a separate BESS Site of approximately 22.90 ha, while ES Chapter 4 describes Work No. 2 as the BESS compound contained within Sub-Site 1B. [APP/6.1.3; APP/6.1.4]

East Pye should provide a definitive coordinated plan showing the BESS Site, Sub-Site 1B, Work No. 2, Project Substations, National Grid infrastructure, principal access and drainage, and the relevant parish boundaries.

This is necessary to understand the relationship between the infrastructure, surrounding communities and the cumulative effects being assessed.

5.5 Central Examination Issue

Mitigation of a chosen site should not substitute for explaining the choice of site. East Pye should demonstrate that the environmental and residential constraints which later required substantial design change were properly considered when the BESS locality was selected.

Relevant Applicant documents include APP/6.1.3, APP/6.1.4, APP/6.1.5, APP/6.1.7, APP/6.3.7.2, APP/6.3.9.1, APP/7.4, APP/7.5, APP/7.17, APP/7.18 and APP/7.20, together with the Works Plan, Land Plan and draft DCO.

The issue is whether East Pye has demonstrated that environmental, residential and safety constraints genuinely informed the choice of BESS location, and whether enforceable controls will ensure that the development ultimately constructed remains within th e environmental and safety envelope examined.

The Botley West examination provides a useful procedural comparison, where further information was sought concerning alternative locations, site -selection methodology, environmental and technical considerations, identified disadvantages and opportunities f or further design reduction.

For East Pye, the Examining Authority should therefore require:

- **a clear chronology of BESS and western -cluster design changes from scoping through PEIR, targeted consultation and DCO submission;**
- **a BESS-specific alternatives and mitigation schedule;**
- **a plan showing the relationship between the BESS Site, Project Substations, Work No. 2 and Sites 1A –1D;**
- **a combined residential -amenity and cumulative -effects assessment for the Site 1/BESS infrastructure cluster;**
- **parcel-specific design evolution for Sites 2A and 2B; and**
- **confirmation that worst -case effects have been assessed consistently across the final scheme.**

Until this information is provided, the Examination should carefully test whether the BESS, substations, Site 2 development and wider western infrastructure cluster have been justified and assessed on a sufficiently integrated basis.

5.6 Applicant's stated site-selection rationale

APP/7.20 records that access considerations relevant to the National Grid Substation were also important to the BESS and that proximity between BESS and National Grid Substation was preferred to limit grid connection infrastructure. East Pye states that proximity minimises transmission losses, maximises storage efficiency, supports grid balancing and clusters taller infrastructure.

The selected BESS Site is also said to provide access from Station Road and separation from homes, heritage and PRoWs.

This explains the proximity to the Point of Connection is attractive to the Applicant. It does not, however, provide a transparent criteria-led assessment of alternative BESS specific sites. In particular, The Applicant has not clearly shown how alternative BESS sites were tested against residential proximity, fire safety, emergency access, groundwater protection, contaminated firewater containment, landscape and visual harm, agricultural land quality, public rights of way, ecological sensitivity, operational noise and cumulative effects with the substations and grid infrastructure.

We would submit that the BESS location appears to have been driven primarily by grid proximity and co-location with other major electrical infrastructure. Later design changes may reduce some harm, but they do not demonstrate that the BESS location was selected through a robust, comparative assessment of reasonable alternatives.

5.7 Design evolution of the BESS Site

The ExA has itself identified the inconsistency between the two 400kV substations described in the Scoping Report and the three contained in the submitted application. Tivetshall Parish Council submits the ExA should require The Applicant to provide a complete dated change chronology, comparative plans and a clear explanation of how the environmental effects of the additional 400kV Project Substation—including its greater voltage, height, equipment, noise, landscape effects, construction requirements and abnormal-load movements - were assessed and consulted upon

APP/6.1.5 records a three-stage evolution.

At Stage 1, the general BESS location and co-location with a 400 kV Project Substation were identified close to the Point of Connection.

At Stage 2, the maximum BESS area was set back from identified surface-water risk and landscape screening/woodland connectivity was introduced.

At Stage 3, the north-eastern BESS area was set back further to provide a minimum 200 m buffer to the nearest residential property in response to fire-safety best practice and noise considerations.

5.8 Technical issue: alternative BESS locations

The Applicant explains the reasons for the selected general location

The examination question is whether the evidence provides a sufficiently transparent comparison of materially different BESS/Project Substation locations, particularly where the selected site is Grade 2 BMV and where the final safety/noise layout remained under development.

The comparison should distinguish the technical benefit of proximity to the PoC from the environmental question of whether a materially lower -impact configuration was reasonably available.

5.9 Mitigation after selection versus avoidance through selection

The Applicant's documents refer to later refinements including setbacks, buffers, screening, surface-water considerations, residential amenity, fire -safety separation and noise considerations. Those changes may be relevant mitigation, but they do not answe r the prior question of whether the BESS and associated project substation and infrastructure should be located in this sensitive village-edge position at all.

This distinction is important. Design evolution should not be used to disguise the absence of a clear alternatives case. If surface-water setbacks, landscape buffers, woodland connectivity, residential separation, fire safety and noise mitigation were nece ssary after the location was identified.

We would submit that the ExA should require The Applicant to explain why those issues were not determinative site -selection criteria from the outset.

The examination should be able to understand which constraints were decisive when the site was chosen and which were managed only after selection.

Key East Pye sources: *APP/7.20 §3.7; APP/6.1.5 design evolution table; APP/6.1.15; APP/7.5.*

5.10 Consistency and Clarity of the Scheme Description

The concern remains regarding the relationship between the "BESS Site" and Work No. 2, this is not sufficiently clear for residents.

The ExA should require The Applicant to confirm, in one clear schedule and plan, the precise spatial relationship between the BESS Site, the POC National Grid Substation, the 2 x 400kV Project Substations, the 132kV Project Substations, access works, cable routes, drainage works, fencing, lighting and emergency -response infrastructure.

Without that clarification, it is not possible to be confident that all environmental assessments have been undertaken on a consistent spatial basis.

5.11 Safety, Water and Emergency-Response Concerns

The BESS safety case remains dependent on detailed design and later management controls. We acknowledge that the Rochdale Envelope is unlawful in principle, where major infrastructure is proposed close to residential receptors, private water supplies, pub lic rights of way and sensitive rural landscapes, the worst -case parameters must be clear enough to allow likely significant effects to be properly understood before consent is granted.

The Applicant's Site Selection Assessment confirms that the Grid Connection Agreement allows for export of up to 500MW of electricity and import of up to 500MW to be stored in the BESS. That is a major operational facility, not a minor ancillary feature.

We would submit that the ExA test whether the current information is sufficient to assess worst-case effects, including BESS fire, toxic emissions, contaminated firewater, access for emergency services, drainage design, groundwater pathways, private water supplies, operational noise and impacts on nearby residents and public rights of way.

5.12 Uncertainty Matters - Gas Insulated Switchgear or Air insulated Switch Gear

As The Applicant has not confirmed whether the proposed 400 kV substations will use Gas-Insulated Switchgear (GIS) or Air-Insulated Switchgear (AIS). This uncertainty matters.

This is a material design choice between GIS and AIS as it affects how much land is needed, appearance, how much noise it produces, and the safety and environmental effects and maintenance.

Without a clear decision, residents and planners cannot properly understand the visual, environmental, or safety impacts of the substations. The Applicant should confirm the technology type before consent is granted, so that the full effects on land use and the surrounding community can be properly assessed, together with the control equipment required to facilitate export from the Scheme to the proposed National Grid Substation.

The Applicant has provided indicative layouts, typical images and maximum design parameters. What is missing and crucial for the residents of Tivetshall and Great Moulton is that none of the following has been finalised:

- engineering drawings
- final battery chemistry, supplier and BESS unit model. notwithstanding that the Outline BSMP appears to use lithium -ion / LFP assumptions for assessment purposes
- the number, spacing arrangements of BESS Enclosures/Battery Units on site
- final firewater -containment design
- final substation technology choice, or final detailed layout for the BESS and substations.
- noise Assessments

The Applicant is relying on a broad Rochdale Envelope and is deferring material design decisions until after consent. Tivetshall residents deserve the reassurance that the ExA has sufficient fixed information, to assess the likely significant effects of the BESS, Project Substations and National Grid Substation before consent is granted.

5.13 Cumulative Assessment of the Western Infrastructure Cluster

There is concern that the consideration of the individual components of the western part of the Scheme risks understating their combined effect.

The BESS, Project Substations, National Grid Substation, Sites 1A–1D, Sites 2A and 2B, overhead-line works, pylons, cable corridors, compounds, haul routes and highway alterations should be considered together as a single infrastructure cluster when assessing cumulative effects.

Those combined effects include prolonged construction traffic, PRoW disruption, drainage and water risks, permanent electrical infrastructure, changes to rural landscape character and tranquillity, and impacts upon residential amenity.

The Examining Authority should therefore require an integrated assessment of highways, PRoWs, drainage and water, utilities, emergency access, construction phasing and permanent operational infrastructure across the Tivetshall –Great Moulton –Wacton area.

5.8 Road and Access Design evolution for Road Changes



ES Chapter 11 identifies the normal construction accesses for Sub-Sites 2A–2C as A07, A08 and A10 from existing A140 lay-bys. The proposed changes to the B1134/Station Road are therefore more directly associated with abnormal indivisible loads and the west ern infrastructure route, although Areas 1–3 adjoin Site 2A and contribute to the cumulative effects experienced around Site 2.

Widening or straightening sections of Station Road could affect residents along the B1134, including Hales Street and Moulton Road, and alter conditions at junctions with Lodge Road, Green Lane and Star Lane, together with PRoWs BR9, FP11 and FP12.

The existing width and alignment of Station Road naturally constrain vehicle speeds. Widening or straightening may alter those conditions and could increase conflict risks for pedestrians, cyclists and equestrians crossing or using the highway. The Applicant should therefore demonstrate clearly how the final highway design protects these users and maintains safe access to the wider PRoW network towards Great Moulton and Wacton.



There is also the concern that the targeted -consultation material has not always made clear whether individual highway works would occur to the north or south of the B1134, making it difficult for adjoining property owners and residents to understand the d irect effects.

Tivetshall residents requests that the Examining Authority require the Applicant to provide:

- **a single coordinated plan showing Site 2 panels, drainage, landscaping, ecological buffers, PRoWs, accesses and all temporary and permanent highway works;**
- **for Areas 1, 2, 3, 5 and 7, final swept -path drawings and a schedule identifying temporary and**

permanent widening, vegetation removal, street -furniture changes, reinstatement and affected receptors;

- confirmation that the environmental assessments remain valid for the final highway design, with updated assessment where materially different effects arise; and

- clear identification of the location, extent and permanency of each proposed B1134 highway alteration.

Chapter 6: Design Certainty, Rochdale Envelope and Post-Consent Controls

6.1 Why Design Certainty Matters

Residents, neighbouring landowners, users of public rights of way and environmental receptors require certainty that the BESS and Project Substation ultimately constructed will not produce materially different or greater effects than those assessed at Examination.

East Pye relies on a Rochdale Envelope and maximum design parameters because a number of detailed equipment and layout decisions will be made after consent.

This approach can provide appropriate flexibility, but only where the final development is clearly bounded by the environmental and safety assumptions assessed in the application.

The burden therefore rests with East Pye to demonstrate that later design choices remain within that assessed envelope.

6.2 What is Fixed

East Pye has fixed important parameters through APP/7.18 and the draft DCO controls, including compound areas, maximum building and enclosure heights, foundation parameters, BESS residential separation, ecological offsets and drainage principles.

Requirement 5 requires the detailed design of Work Nos. 1, 2 and 3 to accord with the relevant Design Principles, Parameters and Commitments.

Requirement 6 provides a separate approval process for battery safety management, including consultation with Norfolk Fire and Rescue Service and the Environment Agency.

These controls provide important limits to the Scheme.

6.3 What Remains Flexible

Affected receptors remain potentially sensitive to design choices that have not yet been fixed.

Matters remaining for later determination include battery technology and chemistry, enclosure numbers and energy duration, cooling arrangements, precise plant locations and spacing, detailed fire suppression, acoustic mitigation and the final Project Substation configuration.

Those choices may materially influence:

- operational noise and acoustic character;
- landscape and visual effects;
- drainage and contaminated firewater;
- fire behaviour and emergency response;
- access and circulation within the site; and

- cumulative effects between the BESS and Project Substations.

The final detailed -design process therefore carries significant environmental and safety consequences.

6.4 What East Pye Must Demonstrate or Secure

East Pye should demonstrate, through the DCO requirements and subsequent approvals, that:

1. Each flexible parameter is bounded by an identified Environmental Statement worst-case assumption or maximum design parameter.

2. Later safety evidence cannot enlarge the consented envelope. The final Battery Safety Management Plan, large-scale fire testing and consequence modelling should demonstrate compliance with the assessed design rather than provide justification for greater noise, firewater, air-quality or spatial effects.

3. Residents are protected from the final plant actually installed. Final acoustic assessment should use the selected equipment and demonstrate compliance with the assessed cumulative noise envelope, including relevant tonal or other acoustic character corrections.

4. Water and environmental receptors are protected. A final integrated drainage and firewater-containment design should identify containment capacity, isolation, testing, release or tankering arrangements and foreseeable emergency failure modes.

5. Overlapping infrastructure is assessed together. The detailed BESS and Project Substation designs should be considered cumulatively wherever their noise, drainage, fire-safety, landscape, access or other effects interact.

6. Compliance can be verified. Each deferred matter should be linked to a clear approval process, consultation requirement, compliance criterion and corrective mechanism.

6.5 Examination Issue

The central issue is not whether some design flexibility is permissible. It is whether East Pye has provided sufficiently clear limits and enforceable controls to ensure that post -consent design cannot transfer additional environmental or safety risk onto surrounding residents and other receptors.

Where a material design matter remains unresolved at Examination, East Pye should demonstrate how the final decision will remain within the assessed reasonable worst case and how compliance will be independently capable of verification.Where I would place it

Chapter 7 Climate Change and BESS Carbon Effects

A scheme promoted as part of the response to climate change should demonstrate both its greenhouse -gas consequences and the resilience of its safety -critical infrastructure under future climate conditions. The BESS is particularly important because East Py e's own lifecycle assessment identifies replacement as a major source of operational emissions.

7.1 BESS Lifecycle Carbon

The source document records East Pye attributing approximately 1,034,103 tCO2e to BESS replacement over the operational period, representing the dominant share of operational - phase emissions and a substantial share of total Scheme lifecycle emissions. East Pye also calculates a potential storage -related saving of approximately 957,849 tCO2e based on assumed storage capacity and charging/discharging behaviour, but treats that figure separately from the principal GHG total because of uncertainty and double -counting

East Pye should:

- **confirm the battery technology, capacity, cycle assumptions and replacement frequency that underpin the carbon assessment;**
- **demonstrate that the final replacement regime and transport/waste arrangements remain within the assessed envelope;**
- **explain the evidential basis and limitations of any BESS -specific carbon benefit relied upon in the planning balance; and**
- **quantify or otherwise transparently address material fugitive greenhouse -gas sources associated with final high -voltage equipment where relevant.**

7.2 Future Climate Resilience

Future heat, drought, intense rainfall and changing storm conditions may affect battery cooling, drainage, firewater management, firefighting-water availability, access and electrical equipment. Resilience should therefore be demonstrated as part of the final design rather than assumed from present-day operating conditions.

East Pye should:

- **demonstrate design resilience to credible future heat and cooling demand;**
- **confirm climate -adjusted drainage and firewater containment capacity;**
- **demonstrate adequate emergency water provision under drought or supply - stress conditions;**
- **protect emergency access from foreseeable flooding or surface -water disruption; and**
- **ensure that later equipment selection does not increase energy consumption, noise or safety risk beyond the assessed envelope.**

Principal Applicant evidence: APP/6.1.6; APP/7.5; APP/7.18; APP/7.26.

Chapter 8: Landscape and Visual

East Pye's own baseline describes the BESS/Site 1 locality as open plateau farmland with expansive skies, long views, sparse settlement and a relatively tranquil, dimly lit rural character. The BESS, Project Substations and National Grid infrastructure would introduce a concentrated industrial form into that setting. The correct question is therefore whether East Pye has demonstrated that the scale, visibility and perceptual change are acceptable, not whether some screening can eventually reduce selected views.

8.1 Landscape Character and Sensitivity

The source document refers to the Great Moulton Plateau Farmland and the wider South Norfolk/High Suffolk clayland landscape: large arable fields, hedgerows, mature trees, quiet lanes, historic features and frequent open views. This character is sensitive to tall or extensive infrastructure because built form can be conspicuous over long distances.

8.2 Applicant-Identified Significant Effects

The source document relies on East Pye's own findings of significant adverse effects at relevant BESS/Site 1 landscape and visual receptors, including public rights of way and some residential viewpoints. Construction effects also include traffic, task lighting, temporary fencing, intermittent noise, PRoW closures and vegetation loss. Those Applicant findings should be given full weight when the acceptability of the location is considered.

8.3 Tranquillity, Dark Skies and Night-Time Character

The BESS and substations require security, maintenance and emergency lighting in a landscape where darkness and low levels of activity form part of the baseline. The LVIA and Lighting Strategy should be read together so that night-time effects are not diluted by treating lighting as a separate technical topic.

8.4 Reliance on Planting

Planting can reduce visibility over time but cannot make the infrastructure absent, and it may itself alter the open plateau character. East Pye should identify the time at which mitigation is expected to become effective, the land needed to achieve it, the party responsible for maintaining it and the residual effect in the intervening years.

8.5 Combined Infrastructure Cluster

The BESS, Project Substations, National Grid Substation, Site 1 works, overhead-line alterations, access and nearby solar arrays may be experienced together. The Examining Authority therefore needs an integrated landscape assessment of the cluster as people see and experience it, not merely a series of component-by-component conclusions.

East Pye should:

- **provide a coordinated landscape plan showing all BESS, substation, grid, access, fencing, lighting and mitigation elements;**
- **identify significant effects at construction, Year 1, Year 15 and decommissioning for the principal local receptors;**
- **demonstrate that screening relied upon is within the Applicant's control and secured for as long as required;**

- assess the combined effect on tranquillity, dark -sky character and perceived rural separation; and
- ensure that later design changes remain inside the landscape and visual envelope examined.

Chapter 9: Ecology and Biodiversity

East Pye has undertaken Scheme-wide ecological surveys. The BESS question is whether that evidence is sufficiently reconciled to the hard-infrastructure footprint and whether the final design protects the species and habitat functions on which the assessment relies.

9.1 Bats and Dark Corridors

The wider surveys record bat activity, including barbastelle. In this rural landscape hedgerows, trees, woodland edges, ponds and field boundaries can function as commuting and foraging routes. The BESS and substation lighting, fencing and access should therefore be designed around identified dark corridors rather than leaving those protections to general wording.

9.2 Breeding Birds and Ground-Nesting Species

The source document records 81 skylark breeding territories across the surveyed area, with 70 within areas subject to permanent development, and notes that skylark remains within the operational assessment for BESS and solar sites. The Applicant should identify the BESS/Site 1 contribution to habitat displacement and where replacement or compensatory habitat is secured.

9.3 Great Crested Newts, Ponds and Terrestrial Habitat

East Pye relies on pond buffers and survey results to control GCN risk. The decisive evidence is spatial: the final BESS, access, drainage, fencing and substation layout should be shown against ponds, buffers and terrestrial habitat so that detailed design cannot erode the mitigation assumptions.

9.4 Badgers, Fencing and Habitat Connectivity

Security fencing can fragment terrestrial movement even where individual hedgerows or trees remain. East Pye should identify known or likely movement routes and show how ground clearance, mammal gaps or other permeability measures will maintain ecological connectivity.

9.5 Hedgerows, Trees, Ditches and Rare Flora

The ecological function of Hundred Lane and other mature boundaries should be assessed as part of an interconnected network. Vegetation removal, access crossings, lighting and drainage changes should be shown together because small individual losses may have a greater combined effect on connectivity than a parcel-based habitat calculation suggests.

9.6 Biodiversity Net Gain and Long-Term Management

A positive scheme-wide BNG result does not remove the need to identify the local BESS/Site 1 habitat debit. Where rural land is converted to developed/sealed surface, East Pye should show the compensation attributed to that loss, its location, establishment period, management responsibility and monitoring.

East Pye should:

- provide a single BESS/Site 1 ecology schedule and plan;
- demonstrate protection of bat corridors, ponds, bird habitat, badger movement and connected hedgerows under the final layout;
- link drainage/firewater pathways to ecological receptors;
- identify the local BNG debit and compensatory habitat; and
- secure ecological review before major replacement and decommissioning activities where habitat or species use may have changed.

Principal Applicant evidence: APP/6.1.8; APP/6.3.8.1 -8.10; APP/7.1-7.4; APP/7.18; APP/7.23-7.25.

Chapter 10: Water Environment

Water is a cross-cutting issue because the BESS and substations combine deep or intrusive foundations, impermeable or engineered surfaces, transformers and oils, battery materials, drainage infrastructure and potentially contaminated firewater above sensitive groundwater and near private supplies.

10.1 Groundwater and Private Drinking Water Supplies

East Pye identifies multiple private supplies and permitted abstractions within the study area, but some records remain uncertain. A high-sensitivity receptor should not be treated as protected merely because a desk-based source-pathway-receptor screen predicts a low likelihood of impact. The Applicant should establish the relevant hydrogeology to the level needed to support its conclusion and secure investigation where uncertainty remains.

10.2 Foundations and Contaminant Pathways

Piling or deep foundations may create vertical pathways. East Pye proposes later intrusive investigation and Foundation Works Risk Assessment. The DCO should therefore make the sequencing explicit: no relevant piling or deep foundation should proceed until the hydrogeological setting and contamination pathway have been satisfactorily assessed and controlled.

10.3 Drainage and Contaminated Firewater

The BESS drainage system must cope with normal surface water and the abnormal condition of a battery fire. Containment, isolation, testing, tankering and controlled release should form one integrated system and should be tested against credible equipment or valve failure, not merely the intended operating condition.

10.4 Rivers, Ditches and Catchment Connectivity

Ditches, field drains, culverts, ponds and groundwater may connect receptors beyond the immediate compound. East Pye should identify the receiving catchment and demonstrate that its assessment has not stopped at an artificial parcel boundary where a credible pollution pathway continues downstream.

East Pye should:

- **confirm the private -water -supply baseline and monitoring strategy;**
- **justify groundwater travel -time and screening assumptions;**
- **secure pre -foundation investigation and risk assessment;**
- **provide final drainage/firewater capacity and failure -mode analysis; and**
- **show downstream surface -water and ecological pathways on a receptor plan.**

Principal Applicant evidence: APP/6.1.9; APP/6.1.16; APP/6.3.9.1; APP/6.3.9.3; APP/6.3.16.1; APP/7.1; APP/7.5; APP/7.26.

Chapter 11: Cultural Heritage

The principal heritage issue is not whether every nearby building will suffer statutory heritage harm. It is whether East Pye has adequately assessed the effect of a large BESS and grid-infrastructure cluster on the rural setting in which designated and non-designated assets are understood and experienced.

11.1 Setting of Listed Buildings and Historic Rural Landscape

East Pye considers listed buildings in the Site 1/BESS study area and predicts limited or no residual harm for a number of them after mitigation. The source document accepts that the surrounding agricultural landscape contributes to the setting of some assets. Where mitigation takes decades to mature, the Applicant should state the duration of the effect and not treat eventual screening as though it exists from day one.

11.2 Hundred Lane and Historic Landscape Structure

Hundred Lane/RB19 is described in the source document as a historic rural route with longstanding boundary vegetation. A permanent engineered crossing, vegetation change and the enclosure of the lane between energy infrastructure should therefore be considered not only as access engineering but also as a change to historic landscape character and user experience.

11.3 Residential Amenity is a Separate Test

Heritage significance and residential outlook are different planning considerations. East Pye should therefore avoid relying on a "no significant heritage effect" conclusion as a substitute for a proper residential visual, noise or amenity assessment of nearby homes.

East Pye should demonstrate or secure:

- **demonstrate the combined BESS/grid effect on the setting of affected heritage assets;**
- **identify the period before planting materially reduces the effect;**
- **assess Hundred Lane and other historic routes as landscape and experiential receptors as well as access routes; and**
- **keep heritage conclusions separate from residential amenity conclusions.**

Principal Applicant evidence: APP/6.1.10; APP/6.3.10.1; APP/6.1.7; APP/6.3.7.9; APP/7.4.

Chapter 12: Transport and Access, Public Rights of Way and Glint/Glare

The transport case should demonstrate that the BESS, substation, solar and grid works can be constructed and operated safely on the rural road network, that permanent highway alterations are justified, and that PRoW users are protected throughout the works. The same chapter should clearly distinguish transport effects from separate glint/glare and aviation considerations.

12.1 Construction and Operational Access

Station Road/B1134, Hundred Lane, Lodge Road and Frith Way form part of the access context. East Pye should provide a final access schedule distinguishing temporary construction use, permanent operational access, abnormal-load requirements and emergency access. Where the design relies on widening, straightening or new crossings, the reason and permanence should be explicit.

12.2 Hundred Lane / RB19

The permanent RB19 crossing should not be treated as an incidental design detail. East Pye should identify what operational vehicle movements require it, why existing or earlier access options are inadequate and what restoration commitment applies if the asset it serves is eventually removed.

12.3 Vulnerable Road Users and PRoWs

Walkers, cyclists, horse riders, school transport and residents use roads and rights of way with limited width, verges and passing space. East Pye should demonstrate how HGV routing, peak construction activity, temporary closures, crossing points and visibility works protect those users and maintain access to the wider network.

12.4 Replacement Campaigns and Emergency Access

Battery replacement may generate significant periodic vehicle movements later in the Scheme life. Emergency access also needs to remain available during construction, normal operation and any concurrent incident. These requirements should be included in the operational traffic and emergency plans rather than treated as exceptional future matters.

12.5 Glint/Glare and Aviation

The source document identifies aviation and local airfield considerations within the wider Scheme. For the BESS objection, East Pye should ensure that final solar layouts and any materially reflective or illuminated infrastructure affecting local aviation receptors remain covered by the submitted glint/glare and aviation evidence. If layout changes occur, the Applicant should confirm that the assessment remains valid.

East Pye should:

- provide a single final access plan and schedule showing all temporary/permanent road and PRoW works;
- supply swept -path and geometry evidence for final highway alterations and abnormal -load movements;
- demonstrate cumulative construction traffic where BESS, substation, solar, cable and National Grid works overlap;
- secure safe arrangements for walkers, cyclists, riders and school/community movements;
- address later battery -replacement traffic and emergency access; and
- confirm the continued validity of glint/glare and aviation assessments for the final layout.

Principal Applicant evidence: APP/6.1.11; APP/6.3.11.1; APP/7.6 -7.8; APP/7.20; relevant glint/glare and aviation appendices referenced in the source document.

Chapter 13: Noise and Vibration

Noise is a principal BESS issue because continuous electrical and cooling plant would operate in a very quiet rural soundscape. The Applicant should demonstrate the effect of the final plant actually selected and the cumulative contribution of BESS, Project Substation and retained grid infrastructure.

13.1 Operational Noise

The source document records very low rural background levels, including periods below 25 dB, and relies on an independent acoustic review questioning the degree to which indicative plant data can determine the final BS 4142 outcome. In a low-background setting, modest sound levels and tonal or otherwise distinctive character may be noticeable even where absolute levels appear low.

13.2 Construction Noise and Vibration

Piling, heavy traffic, compaction and substation construction may affect nearby homes and older buildings. East Pye should define applicable vibration limits, monitoring locations and trigger/action levels before high-vibration works begin.

13.3 Cumulative Noise

The BESS and Project Substation should be modelled together where they operate concurrently. The retained National Grid Substation is also relevant to long-term sound character if its plant remains after the BESS is decommissioned. The Examination should therefore distinguish the temporary 60-year plant from any permanent transmission noise source.

East Pye should demonstrate or secure:

- **use final manufacturer data and the final layout for commissioning-stage verification;**
- **apply appropriate BS 4142 corrections for tonality, intermittency, impulsivity or other distinctive acoustic character;**
- **demonstrate cumulative night-time compliance for BESS and substation plant at the quietest relevant periods;**
- **secure mitigation and post-commissioning verification; and**
- **clarify the long-term noise assessment for any National Grid infrastructure that remains after BESS decommissioning.**

13.3 Noise Intrusion into rural Rural Character, Cumulative Effects and Assessment Uncertainty

Great Moulton and Tivetshall residents have employed their own Consultant - his comments are included under each relevant chapter. BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf - Oakridge Environmental Services) - (see full report following & Appended to this document

Great Moulton is a quiet rural environment, not an existing industrial soundscape. The significance of operational noise therefore cannot be judged simply by whether a predicted figure falls below a general numerical limit. The important questions are how noticeable the new sound would be, its character, how long it would occur, and the extent to which it would change the existing rural acoustic environment, particularly during evening, night-time and early-morning periods.

The Applicant has undertaken a substantial baseline survey, these were unattended acknowledges that it was not possible to identify the dominant sound sources throughout the monitoring periods. At the Great Moulton monitoring locations, (these have never been identified), so the road traffic may in fact refer to the B1134, which is not in the vicinity of Great Moulton, the road traffic was identified during attended observations, but the technical review questions whether traffic provides a reliable and continuous masking effect at the nearest homes, particularly during quiet night-time periods. **East Pye also identifies the relevant Great Moulton residential receptors as high-sensitivity receptors.**

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 5 2.1 Baseline Sound Survey The Environmental Statement on noise and vibration prepared by Stantec provides a baseline noise survey taking data from 51 noise monitoring positions that effectively ...(see full report following & Appended to this document

Page 6 The submitted ES Chapter 12 identifies MP41, MP42 and MP43 as the associated measurement positions for residential receptors in and around Great Moulton, including dwellings on Broadgate Lane and Station Road. The ES also identifies these (see full report following & Appended to this document

This is important because the proposed development would introduce a substantial new cluster of electrical infrastructure into that rural setting, including the **BESS, National Grid Substation, Project Substation, transformers, inverters and associated electrical plant**. These are operational effects capable of occurring over the lifetime of the development, including during the quietest periods of the night.

We would ask the ExA to be aware of Great Moulton's concern that the omission by the Applicant not to identify that the POC substation has no decommissioning date, so the proposed temporary changes to the environment are NOT temporary.

The concern is increased because the operational noise assessment is **not based on final plant specifications or a final equipment layout**. East Pye states that detailed plant specifications are not yet available and that potential noise emissions have therefore been assessed using

example equipment data and an example plant layout. The final number, type, location and operating regime of BESS containers, transformers, inverters and cooling equipment may materially affect both the overall noise level and its acoustic character.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 8 2.2 Noise modelling and calculations 2.2.1 Assessment Assumptions and Limitations The authors have stated that "Detailed plant specifications are not available at this stage and potential noise emissions baked on example equipment data have been assessed using an example plant layout which has been based on an indicative plant layout) (see full report following & Appended to this document

There is also significant reliance on mitigation. The assessment includes a **4-metre-high acoustic barrier around parts of the BESS**, while reduced fan duty is assumed as part of the BESS noise mitigation. The technical review identifies uncertainty over matters including the number of BESS units represented in the model, barrier location and performance, source heights, frequency response, plant layout and the effectiveness of the mitigation over the lifetime of the development.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 9 This introduces a level of uncertainty that is difficult to evaluate. The authors have prudently used a conservative approach assuming the plant operates simultaneously, continuously, and at maximum output. However, there is no indication as to the number of battery storage units (see full report following & Appended to this document

Particular concern arises from **tonal and low-frequency noise**. Electrical infrastructure does not necessarily produce sound that is adequately described by a single broadband A-weighted figure. The review identifies insufficient disclosed frequency data to independently verify the modelling of low-frequency sound from the BESS, inverters and substations, or the effectiveness of barriers at those frequencies. Such components may be more noticeable during quiet night-time conditions.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 9 The sound source data have only been given in broadband A-weighted sound power levels and thus, if the noise model has been calculated in accordance with ISO 9613-2, has used the 500 Hz octave-band frequency to estimate ...

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 10 ... frequency propagation, barrier performance at low frequencies or the potential prominence of transformer hum and cooling plant noise at night. This is particularly relevant as the development includes both BESS infrastructure, ...(see full report following & Appended to this document

East Pye itself recognises that high-voltage transformers can generate a **100 Hz hum**, but concludes that this would be masked by broadband noise from the BESS inverters and

containers. The technical review questions whether that assumption has been sufficiently demonstrated. If a BESS cooling plant operates at reduced duty during the night, or plant loading and operating conditions change, the relative prominence of transformer noise may also change. Without the underlying one-third-octave data, the absence of an appropriate BS 4142 acoustic-feature correction cannot presently be independently verified.

BEPS-GMPC -Review of the NIA - East Pye Solar V2.pdf

Page 11 2.2.3 BS 4142 Acoustic Feature Rating Corrections The authors have concluded that neither the BESS nor the National Grid Substation produce any tonal sound, despite stating:.... ".(see full report following & Appended to this document)

This is therefore **not an argument that unacceptable noise has already been conclusively demonstrated**. The concern is that the Applicant has not yet provided sufficient certainty to rule it out. The review identifies continuing uncertainty over final plant specification, source spectra, modelling assumptions, mitigation performance and whether the measured residual sound environment is representative of the most affected homes.

The issue must also be considered **cumulatively**. Residents around Site 1 and the adjoining BESS would not experience the National Grid Substation, Project Substation, BESS, inverters and other electrical plants as separate planning exercises. They would experience the combined acoustic effect of an infrastructure cluster operating within the same rural environment. Any assessment and noise limits must therefore control the **combined operational effect**, rather than allowing individual items of plant to be considered in isolation.

For Site 2 and other solar parcels containing operational electrical equipment, the same principle applies: the assessment must demonstrate that inverter, transformer or other plant noise remains acceptable at the relevant receptors. However, the attached technical review is principally directed to the BESS and National Grid infrastructure around Great Moulton and should not be presented as a parcel-specific assessment of Site 2.

What should be required

Before reliance is placed on the Applicant's conclusion of no significant operational noise effects, East Pye should be required to demonstrate, on a secured worst-case basis:

- **the final or maximum plant numbers, specifications, locations and operating conditions;**
- **cumulative operational noise from the BESS, National Grid Substation, Project Substation, transformers, inverters and associated plant;**
- **representative night-time background conditions at the most affected homes;**
- **appropriate assessment of tonality, low-frequency sound and other distinctive acoustic characteristics;**
- **the specification and effectiveness of acoustic barriers, enclosures and other mitigation;**
- **enforceable cumulative noise limits applying to the completed development; and**

- **post-installation verification, together with a clear requirement for corre**ctive mitigation if operational noise proves more intrusive than predicted.

The central concern is that a long-term industrial acoustic character should not be introduced into a quiet rural environment on the basis of example equipment, indicative layouts, assumed masking and mitigation that has not yet been finally specified and demonstrated.

The Applicant must therefore establish not merely that predicted broadband noise can meet numerical criteria, but that the **final development, operating cumulatively and during the quietest periods, will avoid significant adverse effects and minimise other adverse effects on residential amenity and quality of life.** The technical review concludes that the present information does not yet provide sufficient certainty to make that judgment.

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However, it is not possible to validate this assessment due to the degree of uncertainty in the submitted assessment. This is due to: • The lack of detail in plant selection, both for the BESS and National Grid ...(see full report following & APPENDIX 2)

13.3.1 APPENDIX 2- Independent Noise Impact Assessment Review - Oakridge Environmental Services on behalf of the village of Great Moulton and The Tivetshalls

13.3.2 APPENDIX 3 - Professional Article on Solar/BESS Noise The sound of solar: Noise in a sustainable world | New Civil Engine

Principal Applicant evidence: APP/6.1.12; noise appendices referenced in the source document; APP/7.2; APP/7.18; Appendix 2 independent noise review.

Chapter 14: Air Quality

Normal operation of the BESS is not expected to be a major source of routine air pollution, but construction emissions and the low-probability/high-consequence case of a battery fire require appropriate controls. The Applicant should demonstrate that the final battery technology and layout remain no worse than the plume and consequence assumptions examined.

14.1 Construction Dust and Diesel Emissions

Construction compounds, access works, earthworks, piling and HGV movements can generate dust and diesel emissions close to rural homes, farms, habitats and roads. The CEMP should identify sensitive receptors, suppression measures, monitoring and complaint response for the actual construction programme.

14.2 BESS Fire Plume and Emergency Response

The plume assessment within Appendix B of the Outline BSMP [APP/7.5] does not identify assessment-level exceedances at the modelled residential receptors. It does, however, identify HF and/or CO exceedances along three public rights of way under the assessed worst-case and sensitivity conditions.

These results should not be interpreted as evidence of routine air-quality impacts or as establishing that residents will experience toxic exposure. They do, however, demonstrate that the consequences of a credible BESS incident are dependent upon the particular battery system, fire behaviour, layout, meteorological assumptions and emergency-response arrangements assessed.

The submitted modelling is based on an illustrative BESS configuration rather than the final system. East Pye should therefore be required to demonstrate, using the final equipment specification and manufacturer-specific test data, that the eventual development does not produce materially greater plume concentrations, fire consequences or emergency-management requirements than those assessed in APP/7.5.

Where the Applicant's own modelling identifies potential exceedances affecting public rights of way, the response should not depend principally upon receptors avoiding harm after an incident has occurred. East Pye should demonstrate that the final design has first reduced the risk at source so far as reasonably practicable through battery selection, enclosure design, separation distances, fire protection, detection, isolation and layout. Any temporary PRoW closure or emergency restriction should form part of a clearly defined and deliverable emergency response, rather than substitute for adequate design mitigation.

East Pye should also demonstrate that the final Emergency Response Plan provides workable arrangements for incident command, public warning, access restriction, liaison with emergency services, firefighting-water containment, monitoring, re-entry and management of any residual contamination.

The proper Examination question is therefore not whether residents, walkers, landowners or neighbouring receptors can respond adequately to a BESS emergency. It is whether East Pye has demonstrated, and the DCO adequately secures, that the final BESS is designed and operated so that risks are controlled at source and remain within the safety and environmental envelope relied upon for consent.

East Pye should: ·

- demonstrate that final chemistry, enclosure spacing and fire behaviour are no worse than the system modelled;
- update consequence modelling where a materially different final technology or layout is selected;
- secure public -route management, warning and exclusion arrangements where required;
- identify post -incident deposition, clean -up and environmental monitoring triggers; and
- coordinate air -quality emergency response with contaminated -firewater and groundwater protection.

Principal Applicant evidence: *APP/6.1.13 where applicable; APP/7.1; APP/7.5; the plume modelling summarised in the source document.*

Chapter 15: Socio-Economics

The principal socio-economic question is not whether the Scheme may create construction expenditure or renewable-energy benefits in the abstract. It is whether East Pye has demonstrated how the concentrated BESS/grid development affects the local rural economy, access, agriculture, tourism and day-to-day functioning of the nearby villages, and whether any claimed benefits are specific and deliverable.

15.1 Rural Businesses and Agricultural Activity

Construction traffic, access restrictions, land take and changes to agricultural operations may affect farms, contractors and small rural businesses. East Pye should identify material local disruption and demonstrate how access to fields, premises and services will be maintained.

15.2 Tourism, Recreation and Rural Character

PRoWs, quiet lanes and rural landscapes contribute to recreational use and the experience of the villages. Where significant visual effects, closures or construction disruption are accepted, East Pye should account for those effects in its socio-economic conclusions rather than treating landscape and recreation as unrelated chapters.

15.3 Property and Insurance Concerns

The source document records local concern about property, insurance and valuation. These matters should not be overstated without objective evidence. East Pye should, however, provide clear information on operational safety, access and nuisance controls so that community concern is not intensified by avoidable uncertainty.

- East Pye should:
- demonstrate continuity of access for farms and rural businesses;
- identify periods of material construction disruption and the mitigation/communication arrangements;
- ensure recreation and PRoW effects are reflected in the socio-economic assessment where relevant; and
- avoid relying on generic economic benefit claims without identifying the locally deliverable component.

Principal Applicant evidence: *APP/6.1.15 where applicable; transport, landscape and PRoW documents referenced elsewhere in this submission.*

Chapter 16: Soils and Agriculture

The BESS is materially different from raised solar arrays because it requires concentrated hard infrastructure, stripping and reworking of soils, foundations, access, drainage and long-term operational disturbance. East Pye's own soil evidence describes the BESS area as essentially Grade 2 BMV land.

16.1 Best and Most Versatile Land

The source document records a BESS compound up to approximately 6.5 ha and a Project Substation within a wider approximately 22.90 ha BESS Site. It also records a worst-case figure of approximately 37.9 ha of permanent BMV loss across BESS, project substations, National Grid substation and tracks, assessed as a significant permanent agricultural effect. The precise BESS contribution should therefore be made transparent.

16.2 Reversibility and Soil Restoration

Topsoil stripping, concrete bases, piled foundations and long-term access are more intrusive than ordinary solar arrays. East Pye should distinguish land that can genuinely return to agricultural use after decommissioning from land affected by retained National Grid infrastructure or long-term engineered works.

16.3 Soil Management throughout the Scheme Life

Battery replacement, maintenance, drainage repairs and decommissioning may disturb soils long after initial construction. Soil handling and compaction controls should therefore extend beyond the construction CEMP where later campaigns involve significant earthworks or heavy plant.

East Pye should:

- **provide a parcel-specific ALC plan for the BESS, Project Substation, National Grid works and permanent access;**
- **quantify the permanent and temporary BMV loss attributable to each component;**
- **justify why Grade 2 land is required where reasonable alternatives are said to be unavailable or less suitable;**
- **distinguish truly reversible land from land affected by retained infrastructure; and**
- **secure soil management and restoration standards for construction, replacement and decommissioning.**

Principal Applicant evidence: *APP/6.1.15 or the soils/agricultural chapter cited in the source document; relevant ALC appendices; APP/7.3; APP/7.18.*

Chapter 17: Ground Conditions

Ground conditions matter because the BESS and substations may use deep foundations or piling and because ground disturbance can alter pathways between shallow soils, aquifers, drains and private water supplies. East Pye proposes to resolve important detail s through later intrusive investigation and risk assessment.

17.1 Intrusive Investigation and Foundation Works

A Phase 1 assessment cannot determine every site-specific foundation or contamination issue. Post-consent investigation can be appropriate, provided the DCO prevents relevant works from proceeding until the necessary evidence has been produced, assessed and approved.

17.2 Vibration, Settlement and Nearby Buildings

Foundation works, heavy construction traffic and compaction may affect vulnerable buildings or structures. Where East Pye's chosen method creates a credible risk, the Applicant should identify condition -survey and monitoring requirements before works commence.

17.3 Groundwater, Drainage and Contamination

Ground investigation, groundwater protection, drainage and BESS firewater cannot be treated as separate controls. The final foundation design should be checked against the hydrogeological and contamination assessment so that the engineering solution does n ot create a new pollution pathway.

East Pye should:

- **secure intrusive investigation before relevant detailed foundation design is approved;**
- **require Foundation Works Risk Assessment and any necessary hydrogeological assessment before piling/deep foundations;**
- **identify vibration and settlement controls for sensitive buildings or structures;**
- **integrate foundation design with groundwater, drainage and contamination protection; and**
- **provide monitoring and corrective action where residual uncertainty remain**

Principal Applicant evidence: *APP/6.1.16; APP/6.3.16.1; APP/7.1; APP/7.26.*

Chapter 18: Electromagnetic Fields

High-voltage substations, cables and grid infrastructure generate electromagnetic fields. East Pye's obligation is to demonstrate compliance with the applicable exposure guidance and to identify the receptors and infrastructure interfaces relevant to the final design. The submission should not imply biological or ecological effects that are not supported by the Applicant's evidence.

18.1 Residents and Public Routes

The Applicant should show that final equipment, cable routes and operational boundaries remain compliant at accessible locations, including nearby homes and public routes. Where the detailed electrical arrangement changes after consent, compliance should be re-checked against the same standards.

18.2 Electrical Compatibility and Infrastructure Interfaces

The same chapter should identify any relevant compatibility issues with existing utilities, communications or aviation/navigation systems where those matters are within the environmental assessment or protective-provisions process.

East Pye should:

- **identify the applicable EMF exposure standards and demonstrate compliance for the final layout;**
- **confirm the assessment at accessible boundaries, PRoWs and nearby residential receptors; and**
- **re-assess if later electrical design changes could materially affect the field envelope.**

Principal Applicant evidence: *APP/6.1.18 and associated plans/appendices referenced in the source document.*

Chapter 19: Other Environmental Matters

The purpose of this chapter is to ensure that cross-cutting matters are not lost between individual technical topics. For the BESS/Site 1 cluster the most important interfaces are utilities, communications, lighting, waste, materials, replacement activity, decommissioning and the consistency of management plans.

19.1 Utilities and Essential Services

East Pye should identify all existing service corridors affected by the final layout and show how diversions, protection, outages and emergency repair will be managed without transferring unacceptable risk to nearby homes, farms or emergency response.

19.2 Lighting and Security

Security and maintenance lighting affects landscape, residents, bats and dark-sky character at the same time. The final Lighting Strategy should therefore define luminaire heights, direction, controls and maximum spill levels with direct cross-reference to ecological and residential receptors.

19.3 Waste, Materials and Replacement

Battery replacement will create a recurring materials and waste stream. East Pye should demonstrate lawful and practical arrangements for removal, temporary storage, transport, recycling or disposal and any damaged or incident-affected equipment.

19.4 Decommissioning

The decommissioning strategy should clearly distinguish BESS/Project Substation assets to be removed from National Grid assets, access or mitigation that remain. Restoration should be specified sufficiently to demonstrate the end state relied upon in the environmental assessment.

East Pye should:

- **provide cross-referenced final plans and management documents for utilities, lighting, waste and decommissioning;**
- **define performance standards rather than relying only on "where practicable" wording where mitigation is essential;**
- **assign responsibility for long-term maintenance, monitoring and incident response; and**
- **demonstrate the post-decommissioning land and infrastructure condition relied upon in the ES.**

Principal Applicant evidence: APP/6.1.18-6.1.20; APP/7.1-7.5; APP/7.18; APP/7.26.

Chapter 20: National Grid Infrastructure Cluster

The BESS should not be assessed in isolation from the National Grid and Project Substation infrastructure that gives the locality its defining character. The western cluster comprises multiple high -voltage and storage components, associated access, drainag e, cabling, security and landscape mitigation. Some parts are intended to be removed after the operational period; others are intended to remain.

20.1 One Functional Infrastructure Cluster

The local receptor experiences the BESS, Project Substation, National Grid Substation and related access as one concentration of infrastructure. East Pye should therefore demonstrate combined effects for noise, landscape, lighting, drainage, emergency acce ss and construction, rather than relying only on separate component chapters.

20.2 Permanent versus Time-Limited Infrastructure

The National Grid Substation and Grid Connection Infrastructure are described as remaining after the approximately 60 -year solar/BESS period. The Applicant and NGET should therefore identify which impacts, access arrangements and mitigation become effectiv ely permanent and which genuinely end with BESS decommissioning.

20.3 Operational Responsibility

Where different entities operate the BESS, Project Substation and National Grid assets, responsibility for emergency coordination, access, drainage interfaces, noise, maintenance and landscape mitigation should be clear. Fragmented ownership should not lea d to fragmented environmental control.

East Pye should:

- **provide a single plan and asset schedule for the western infrastructure cluster;**
- **identify operator/owner responsibility for each asset and shared system;**
- **assess combined operational noise, lighting, drainage and emergency response;**
- **confirm all infrastructure that remains after Year 60 and the mitigation that continues with it; and**
- **demonstrate that shared or adjacent systems do not create gaps between DCO requirements and NGET responsibilities.**

Principal Applicant evidence: *APP/6.1.3; APP/6.1.4; APP/6.1.7; APP/6.1.12; APP/7.37.5; APP/7.18; APP/7.26; relevant NGET examination material referenced in the source document.*

Chapter 21: Cumulative and In-Combination Effects

Residents and environmental receptors do not experience the Scheme as separate Environmental Statement chapters. They may experience traffic, noise, lighting, visual change, PRoW disruption, drainage, ecological disturbance and construction activity at the same time. East Pye should therefore demonstrate cumulative effects at receptor level.

21.1 The Receptor Experience

The appropriate unit of analysis is often the receptor: a household, PRoW, rural lane, ditch, habitat corridor or heritage setting. A series of individually "not significant" topic effects may still require careful examination where they combine in duration, timing or location.

21.2 Construction Overlap

BESS, substation, solar, cable, highway and National Grid works may overlap on the same roads and affect the same communities. East Pye should demonstrate the realistic peak combined construction case, including worker movements, HGVs, temporary traffic management, noise, dust and PRoW closures.

21.3 Operational In-Combination Effects

The BESS and substations combine visual change, low-level operational sound, lighting, security fencing and altered access. Water, ecology and ground conditions are also connected through drainage and foundation pathways. These interfaces should be shown directly rather than left for the Examining Authority to reconstruct across documents.

21.4 Residual Significant Effects and Mitigation Dependency

East Pye's own documentation identifies significant landscape and visual effects in the BESS/Site 1 area. Other conclusions depend on later plant selection, planting, acoustic design, lighting controls, drainage and safety management. The Examination should distinguish: Applicant-identified significant effects; effects predicted not significant but mitigation-dependent; and residual uncertainty caused by deferred design.

East Pye should:

- **provide receptor-based cumulative schedules for the closest homes, key PRoWs, rural roads and sensitive environmental receptors;**
- **demonstrate combined construction activity under a realistic phasing case;**
- **assess BESS, Project Substation and National Grid operational effects together where they interact;**
- **identify which conclusions depend on future mitigation or detailed design; and**
- **show how compliance and cumulative performance will be verified after detailed design.**

Principal Applicant evidence: *APP/6.1.19; APP/6.1.20; cumulative LVIA and topic assessments referenced in the source document.*

Chapter 22: Human Health and Wellbeing

Human health and wellbeing should be assessed through the actual pathways by which the Scheme may affect people: noise, sleep disturbance, construction traffic, dust, lighting, emergency incidents, access to recreation, private water supplies and prolonged uncertainty. The chapter should neither exaggerate unproven risks nor treat these pathways as unrelated because they sit in separate technical assessments.

22.1 Residential Amenity

Nearby residents may experience construction disturbance followed by long-term changes in view, sound, lighting and rural character. East Pye should demonstrate that the combined effect remains acceptable at the closest homes and that mitigation is secured for the full period in which it is needed.

22.2 Water and Emergency Risk

For households reliant on private water supplies, prevention and rapid response to contamination are directly relevant to wellbeing. BESS emergency planning should also identify public communication and protective actions without implying that a serious incident is expected to occur.

22.3 Access to Countryside and Community Routes

PRoWsand quiet rural lanes contribute to everyday recreation and community wellbeing. Temporary closures, permanent crossings, construction traffic and long-term industrialisation of views should therefore be assessed as lived effects, not just transport or landscape metrics.

22.4 Human Rights and Proportionality

The source document cross-refers to Article 8 and Article 1 of Protocol 1. The useful Examination question is proportionality: whether interference with private life, home, property use or access is justified by a properly evidenced public-interest case and is no greater than necessary, taking account of reasonable mitigation and alternatives.

East Pye should:

- **demonstrate the combined amenity effect on the closest households;**
- **secure protection and response arrangements for private water supplies where credible pathways exist;**
- **maintain safe and usable access to community routes so far as reasonably practicable; and**
- **explain why residual interference with homes, property use or public routes is necessary and proportionate in light of the alternatives considered.**

Principal Applicant evidence: *Human-health, noise, transport, landscape, water and safety documents referenced throughout the source document; relevant DCO and management-plan controls.*

Chapter 23: Great Moulton Specific Issues

Great Moulton is directly affected by the concentration of BESS, Project Substation and National Grid infrastructure around Site 1. The local issue is not one isolated impact but the conversion of open plateau farmland into a long -lived grid hub, together with access, PRoW, water, noise and landscape consequences.

23.1 The Western Grid Hub

East Pye should present Site 1 and the BESS as a coherent local infrastructure cluster. Residents should not have to combine separate Works Plans, environmental chapters and management plans to understand the total development between Great Moulton and Tivetshall.

23.2 Hundred Lane / RB19 and Rural Character

The permanent crossing, vegetation change and infrastructure on either side of Hundred Lane make this route a particularly clear example of the need for an Applicant -led necessity and alternatives case. East Pye should demonstrate why the permanent change is required and how its acknowledged significant visual effect is addressed.

23.3 Very Quiet Sound Environment

Great Moulton is a quiet rural environment, not an existing industrial soundscape. The rural baseline is exceptionally quiet at certain times.The significance of operational noise therefore cannot be judged simply by whether a predicted figure falls below a general numerical limit. The important questions are how noticeable the new sound would be, its character, how long it would occur, and the extent to which it would change the existing rural acoustic environment, particularly during evening, night -time and early-morning periods.

East Pye should therefore design the final BESS and substation plant to the local sound environment rather than relying on generic acceptability. Final commissioning evidence is essential because the decisive plant has not yet been selected.

23.3.1 Cumulative Effects and Assessment Uncertainty

Great Moulton and Tivetshall residents commissioned an independent review of East Pye's Noise Impact Assessment by **Oakridge Environmental Services** . The full report is provided at **Appendix 2** , with relevant findings referred to throughout this chapter.

East Pye has undertaken an extensive baseline sound survey and identifies Great Moulton residential receptors as highly sensitive. However, the unattended monitoring could not continuously identify the dominant sound sources, and the Oakridge review questi ons whether road traffic provides reliable masking at the nearest homes, particularly during the quietest night -time periods.

This is important because Site 1 would introduce a substantial concentration of operational electrical infrastructure, including the **BESS, National Grid Substation, Project Substation, transformers, inverters and associated plant** . The National Grid infrastructure is also of particular importance because it is not proposed to be decommissioned with the temporary solar and BESS development.

The operational assessment is not based on the final plant or a final layout. East Pye relies on **example equipment data and an indicative plant layout**, together with mitigation including acoustic barriers and assumptions concerning BESS fan operation. Oakridge identifies uncertainty concerning plant numbers, source locations and heights, operating regimes, barrier performance and the effectiveness of mitigation.

The review also raises specific concerns regarding **tonal and low-frequency noise**. East Pye recognises that high-voltage transformers can generate a characteristic 100 Hz hum but relies partly on masking by other plant. Oakridge considers that the disclosed frequency information is insufficient to independently verify low-frequency propagation, barrier performance or the absence of significant acoustic character, particularly during quiet night-time conditions.

The issue is not that unacceptable noise has already been demonstrated, but that **East Pye has not yet provided sufficient certainty to rule it out**. Residents would experience the BESS, substations, transformers and other electrical plant as a single infrastructure cluster. The assessment and any secured limits should therefore address their **combined operational effect**, including during the quietest periods.

East Pye should demonstrate or secure:

- **the maximum plant numbers, specifications, locations and operating conditions relied upon in the assessment;**
- **cumulative operational noise from the BESS, National Grid Substation, Project Substation and associated electrical plant;**
- **representative night-time background conditions at the most affected dwellings;**
- **appropriate assessment of tonality, low-frequency noise and other distinctive acoustic characteristics;**
- **the specification and effectiveness of barriers, enclosures and other mitigation;**
- **enforceable cumulative noise limits for the completed development; and**
- **post-installation verification and corrective mitigation where predicted limits or acoustic characteristics are not achieved.**

The central issue is whether East Pye can demonstrate that the final development, operating cumulatively and during the quietest periods, will avoid significant adverse noise effects and minimise other adverse effects on residential amenity. Oakridge concludes that the present level of uncertainty does not yet allow that conclusion to be independently verified.

[BEPS-GMPC Review of the NIA– East Pye Solar V2, Oakridge Environmental Services, pp. 5-14; Appendix 2]

23.4 Grade 2 Land and Private Water Supplies

The same locality combines Grade 2 agricultural land with sensitive groundwater and private supplies. East Pye should justify why this land is required and demonstrate that deep foundations, drainage and firewater systems protect the underlying water environment.

23.5 Retained National Grid Infrastructure

Great Moulton's landscape and amenity effects do not necessarily end at BESS decommissioning because the National Grid Substation and connection infrastructure are described as remaining. East Pye and NGET should identify the post-Year-60 condition and any access or mitigation that remains with it.

East Pye should:

- provide one Great Moulton/Site 1 infrastructure plan covering BESS, substations, OHL/grid works, access, drainage and mitigation;
- provide a necessity and alternatives case for the permanent RB19 crossing;
- verify final cumulative noise at the quietest relevant periods;
- protect private water supplies and Grade 2 agricultural soils through enforceable controls; and
- provide a post-Year-60 landscape and access statement for retained National Grid assets.

Principal Applicant evidence: *APP/6.1.4; APP/6.1.7; APP/6.1.9; APP/6.1.12; APP/6.1.15/soils evidence cited in the source document; APP/6.1.16; APP/6.3.7.9; APP/7.3-7.8; APP/7.18.*

Chapter 24: Core Position

The core position is not that East Pye has undertaken no assessment. It has submitted a large Environmental Statement and an extensive suite of plans, appendices and outline management documents. The issue is whether those documents establish a sufficiently clear and enforceable case for this particular BESS and grid-infrastructure cluster.

The Examining Authority should be able to answer four questions from East Pye's evidence without reconstructing the case on the Applicant's behalf: Why is the BESS needed and deliverable as a distinct component? Why is this location and scale justified against reasonable alternatives? What is the maximum development that may ultimately be built? What binding controls ensure that the final design will not produce materially different or greater effects than those examined?

Where East Pye can answer those questions with site-specific evidence and enforceable controls, that evidence can be weighed in the usual planning balance. Where a material conclusion still depends on undefined later design, uncertain receptor information or mitigation that is not secured, the uncertainty should remain with the Applicant rather than being assumed away.

Before the BESS element is given positive weight, East Pye should therefore establish:

- **a transparent BESS -specific need and deliverability case;**
- **a reasoned alternatives and site -selection case for the chosen BESS location;**
- **a definitive spatial description of the BESS/Site 1/National Grid cluster;**
- **fixed environmental and safety limits for all material deferred design choices;**
- **site -specific fire, drainage, groundwater, private -water, noise, landscape, ecology, transport and agricultural -land controls;**
- **receptor -based cumulative assessment; and**
- **clear DCO mechanisms for approval, monitoring, verification and corrective action.**

Appendices

The source document contains external and specialist supporting material, including a safety comparator and an independent acoustic review. Those materials should be retained as supporting evidence where the final submission team wishes to rely on them, bu t the main objection should stand on East Pye's own application evidence and the secured DCO position.

Appendix 1- External BESS Safety Comparator

The source document refers to external BESS safety material as an illustration of why cell/container spacing, plume assumptions and firewater design can matter. It should not be presented as proof that East Pye has the same design deficiency. East Pye's pɒposal should be judged against its own final technology, APP/7.5, the secured DCO controls and the applicable guidance.

The Navenby material is external to the East Pye application and is relied upon only as an illustration of why spacing, plume assumptions and firewater design can matter. BEPS does not contend that East Pye has the same design deficiency. East Pye's compliance must be judged against APP/7.5, the final secured design and the applicable guidance at the time.

The following is an article highlighting the unusual steps The UK Health Security Agency (UKHSA) took in intervening in a local planning application in relation to a proposed battery energy storage system (BESS) site at Navenby in Lincolnshire which highlights the facts that there are many issues which do cause concern.

"Its response to the application which highlighted the lack of compliance with guidance on BESS fire safety issued by the National Fire Chiefs Council (NFCC), as a result of which it "significantly increases" the risk of a fire at the site developing into a major incident."

The NFCC guidance states that battery modules should have 6m separation between each one to mitigate against fire spreading through thermal radiation in the event that one module goes into thermal runaway.

The UKHSA said: "The non-compliant 3.5m spacing significantly increases the probability of a domino effect (thermal runaway)." "This design failure renders the air quality modelling... unreliable and insufficient to safeguard the community.

The letter to the council also raised concerns that water used to fight any fire at the site would not be contained by the size of the proposed "firewater lagoon", leading to pollution into the local environment:"The release of highly toxic firewater run -off (containing heavy metals and corrosive acids) into the aquifer, posing potential contamination risk to land and groundwater, the public water supply and environmental health".

Additionally, UKHSA found fault with the application, stating that it "fails to address the high probability that a lithium -ion fire will be left to burn for days or weeks… prolonging the potential exposure of nearby residents to toxic gases".

The Navenby BESS site has been designed to store up to 400MW of electricity, with the site developers, Windel Energy and Recurrent Energy, explaining in a consultation document

that: "Advanced safety measures, including continuous monitoring of individual battery cells, are in place to promptly address any potential concerns and manage operations for utmost safety."

As previously reported by the FPA, the dangers posed by BESS sites and the need for greater regulatory safety has been raised in the House of Commons. The debate came after a series of incidents at BESS sites, including a fire at one such site at East Tilbury, Essex in February 2025

Appendix 2 - Independent Noise Impact Assessment Review

The source document identifies an independent acoustic review prepared for Great Moulton and Tivetshall. The key points relied upon in this concise submission are reflected in Chapters 4 and 13: the importance of the very low rural background, final plant selection, BS 4142 acoustic character, cumulative BESS/substation noise and post-commissioning verification. The full specialist report should be appended to the final submission if it is to be relied upon as expert evidence.

OAKRIDGE
ENVIRONMENTAL SERVICES

Noise Impact Assessment Review

East Pye Solar

Solar PV station, erection of a battery energy storage facility (BESS), National Grid substation

and associated infrastructure

On behalf of

Block East Pye Solar and Great Moulton Parish Council

Great Moulton

Norfolk

Planning Inspectorate Reference: EN0110014

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1. Introduction

1.1 Introduction

This report is prepared on behalf of Great Moulton Parish Council in support of refusal of the planning application EN0110014 for the erection of a battery energy storage facility (BESS) and a National Grid substation within the parish of Great Moulton, Norfolk. The BESS and National Grid substation will serve a proposed solar farm which is also part of the application. However, it is the BESS and substation that have the potential to cause significant adverse effects to the residents of Great Moulton. The grounds for refusal include consideration of potential noise impacts stated as follows:

This report is a technical review of the applicant's submitted Noise Impact Assessment and supporting information. It does not purport to provide a complete new operational noise assessment of the scheme.

Rather, it considers whether the submitted information is sufficiently detailed, transparent and robust to allow the decision-maker to conclude that unacceptable adverse noise effects would be avoided. Where the applicant's information is incomplete, uncertain or not capable of independent verification, this report identifies those limitations and the implications for decision-making.

1.2 Summary

The case is not that the BESS and National Grid substation development is inherently unacceptable in noise terms. Rather, the concern is that the submitted information does not provide sufficient information and therefore introduces a high level of uncertainty as to whether adverse noise effects would be avoided or capable of being mitigated effectively once the site becomes operational, particularly having regard to:

- BS 4142 assessment methodology, context and uncertainty;
- The very quiet rural night-time acoustic environment;
- Potential low-frequency and lack of information on tonal characteristics;
- Uncertainty over the final plant specification; and
- Limited information on modelling inputs and scale of uncertainty of the noise propagation model for a large collection of noise sources with a low frequency character

acoustic character, mitigation assumptions and receptor background conditions remain uncertain, the decision-maker cannot be confident that the proposed development would be acceptable in noise terms.

While it is acknowledged that grid-scale battery energy storage systems (BESS), substations and associated electrical infrastructure can often be made acceptable in noise terms, it is respectfully submitted that the current submission does not provide sufficient certainty to conclude that this particular development would not give rise to

adverse or significant adverse effects on residential amenity, particularly during the night-time period and in relation to low-frequency and/or tonal noise.

The BESS is considered in some detail because it appears to be one of the potentially dominant operational noise sources, but the same issues of specification uncertainty, source data, acoustic character, mitigation assumptions and receptor context are also relevant to the National Grid substation and other noisy operational elements of the scheme.

1.3 Documents examined

Report	Prepared by	Date
Environmental Statement Vol. 1: Chap.12 – Noise and Vibration	Stantec	March 2026
Environmental Statement Vol. 2: Figure 12.1 Sound and Meteorological Survey Location	Stantec	February 2026
Environmental Statement Vol. 2: Figure 12.2 Noise and Vibration Sensitive Receptors	Stantec	February 2026
Environmental Statement Vol. 3 Appendix 12.1 Baseline Sound Survey Report	Stantec	March 2026
Environmental Statement Vol. 3: Appendix 12.2 – Noise Modelling and Calculations	Stantec	March 2026
Statutory Nuisance Statement Revision 1	Stantec	March 2026

Table 1 - Reports examined

2. Stantec Environmental Statement – Noise and Vibration

2.1 Baseline Sound Survey

The Environmental Statement on noise and vibration prepared by Stantec provides a baseline noise survey taking data from 51 noise monitoring positions that effectively covers the number of noise-sensitive receptors across this vast site. The survey durations were 6 to 8 days at each location and provide a good representative snapshot of the ambient and background sound levels in terms of broadband A-weighted $L_{eq,T}$, $L_{90,T}$ and $L_{F\,Max,T}$.

However, the report states that as this was an unattended survey, it is not possible to accurately comment on the dominant noise sources or specific noise events during the entire survey period. Comments were given on the on-site environmental sound climate at the time of set-up and collection and these included "on-site sound levels dominated by vehicular movements on the surrounding road network" for the majority of the survey positions and in all 4 of the survey positions reported for Parcel Group 1 which covers Great Moulton.

These are MP41 to MP44. Since no octave or third-octave band data have been published, it is not possible to determine whether road traffic noise is the dominant source of noise in this isolated rural area. The presence of road traffic noise can be indicated by comparing the spectral content of the measured levels with the typical road traffic spectrum set out in BS EN 1793-3 and referenced in BS 8233:2014. This is a concern, as the subsequent noise model and specific sound level assessments rely somewhat on the masking effect of road traffic sound. The DEFRA-funded strategic noise maps produced by Extrium (http://www.extrium.co.uk/noiseviewer.html) shows that the A140 to the east of Great Moulton does not appear to have a significant noise impact on the area. (See ***Figure 1*** to ***Figure 3***).

These strategic road traffic noise maps are not a substitute for receptor-specific background sound measurements, but they provide useful context when considering whether road traffic is likely to provide a consistent masking influence at Great Moulton, particularly during the night-time period.

The submitted ES Chapter 12 identifies MP41, MP42 and MP43 as the associated measurement positions for residential receptors in and around Great Moulton, including dwellings on Broadgate Lane and Station Road. The ES also identifies these receptors as high sensitivity receptors.

This reinforces the need for particular caution when applying generic assumptions about the residual acoustic environment at Great Moulton, because the acceptability of the operational assessment depends on whether the measured baseline is genuinely representative of the receptor locations and whether the assumed masking environment is present during the most noise-sensitive periods.

The principal concern at this time is not whether the background sound levels reported by the applicant are numerically correct at the monitoring locations. Rather, it is whether those measurements and the acoustic conclusions drawn from them are representative of the nearest and most affected residential receptors.

The submitted assessment relies upon assumptions regarding the residual acoustic environment, including the degree to which existing background sounds like road traffic, would mask operational noise from the BESS, National Grid substation and associated infrastructure. If those assumptions are not representative of the receptor locations, the conclusions of the BS 4142 assessment may be materially affected. This uncertainty could then be further exacerbated by tonal and character assumptions informing the selected Noise Rating level on which judgement is made as to whether or not there are significant impacts.

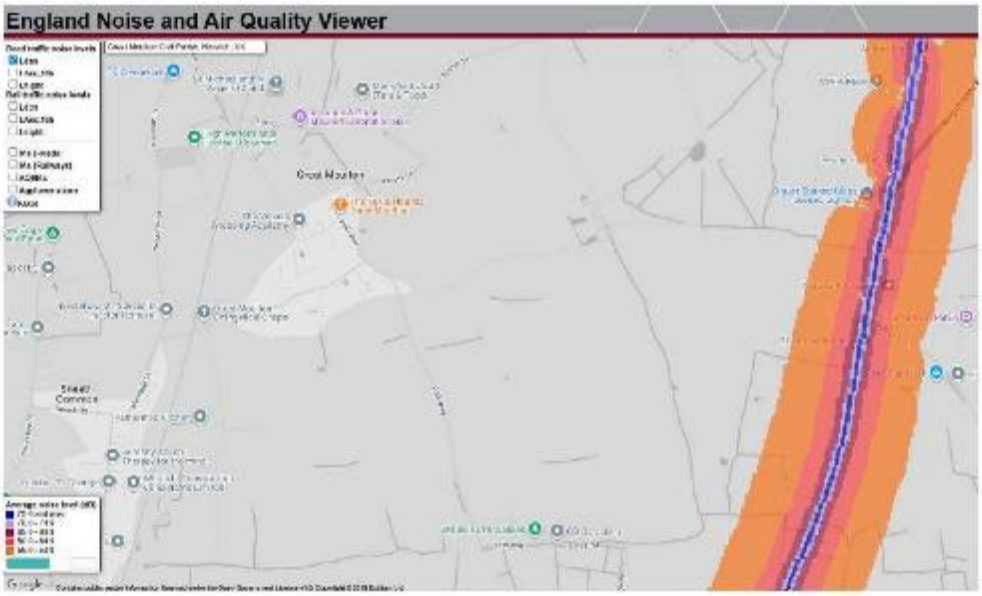


Figure 1- Lden Road traffic noise levels from Extrium

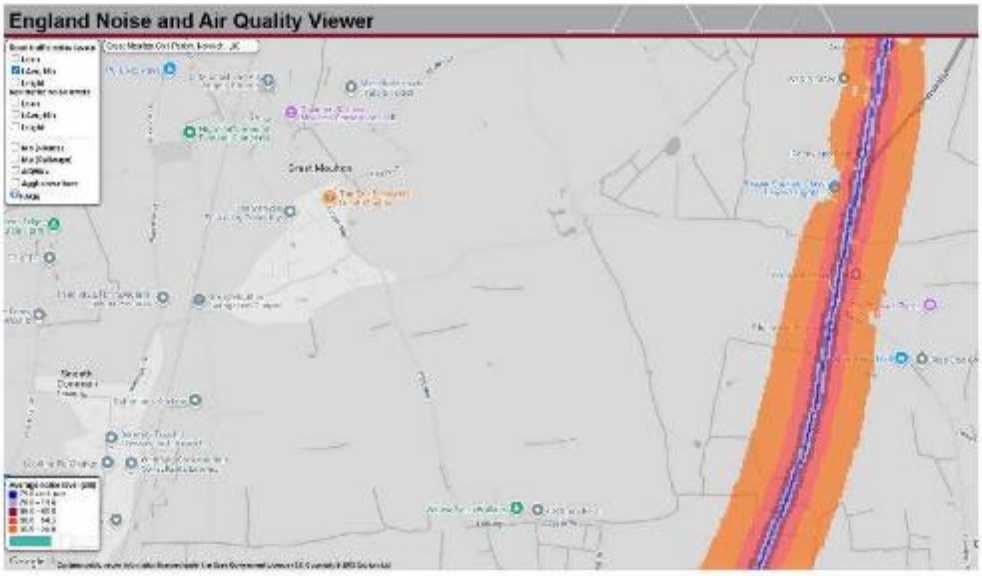


Figure 2 LAeq,16hrs road traffic noise levels (daytime) from Extrium

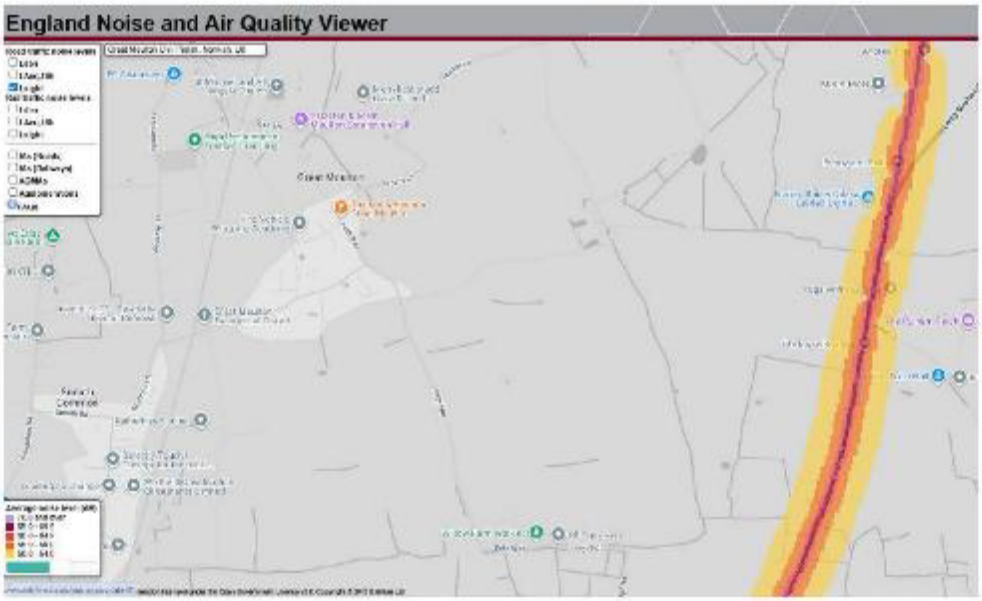


Figure 3 Lnight road traffic noise levels from Extrium

2.2 Noise modelling and calculations

2.2.1 Assessment Assumptions and Limitations

The authors have stated that:

> *"Detailed plant specifications are not available at this stage, and potential noise emissions based on example equipment data have been assessed using an example plant layout which has been based on achieving the Outline Operational Environmental Management Plan….. noise requirements "*

The ES Chapter 12 states that the operational assessment has been informed by scheme information but also identifies assessment assumptions and limitations. The submitted information therefore appears to rely on an indicative plant layout and example plant data at this stage.

This is important because the final number, type, layout and operating regime of BESS containers, inverters, transformers and associated cooling plant may materially affect both the overall rating level and the acoustic character of the installation. In a BS 4142 assessment, such uncertainty is not simply a matter of calculation refinement; it affects the confidence that can be placed on the predicted outcome and on the conclusion that no significant effect is anticipated.

This introduces a level of uncertainty that is difficult to evaluate. The authors have prudently used a conservative approach assuming plant operates simultaneously, continuously, and at maximum output. However, there is no indication as to the number of battery storage units to be installed and the authors have made an exception with the BESS by assuming reduced sound levels associated with lower fan duty as a method of mitigation. It is not clear from the report how many units have been used in the calculation of noise from the BESS.

The calculation includes the provision of a 4m high acoustic barrier in areas around the BESS with a surface density of 15kg/m2 and an absorptive side facing the battery storage containers.

The inclusion of a 4 m high acoustic barrier as part of the modelled mitigation indicates that operational noise requires material mitigation in order to achieve the assessment conclusions. The effectiveness of that mitigation is therefore central to the reliability of the assessment and should be supported by clear assumptions regarding barrier location, height, surface density, absorption, source heights, frequency performance and long-term deliverability.

Consideration could be given to an earth bund around the BESS and substation site that provides sound and visual screening.

The need for a 4 m high acoustic barrier as embedded or additional mitigation is itself a material indicator that operational plant noise is capable of being significant if not carefully controlled.

The ES Chapter 12 includes operational plant noise assessment tables and residual operational assessment tables, but the robustness of those conclusions depends on the performance assumptions for the barrier, the assumed source heights, source directivity, plant layout and the frequency content of the source data. If any of these assumptions change at detailed design stage, the modelled screening performance and receptor levels may also change.

The sound source data have only been given in broadband A-weighted sound power levels and thus, if the noise model has been calculated in accordance with ISO 9613-2, has used the 500 Hz octave-band frequency to estimate sound attenuation. However, there are concerns regarding low-frequency sound from the BESS, inverters and substations, which will not be addressed by A-weighted broadband levels, and attenuation over distance in the lower frequencies such as 50 Hz and 100 Hz is less than that in the mid to high frequencies.

The ES Chapter 12 reports operational sound power data in tabulated form and concludes that residual effects would not be significant. However, without the supporting octave-band or one-third-octave source data, it is not possible to independently test whether the model has appropriately accounted for low-

frequency propagation, barrier performance at low frequencies or the potential prominence of transformer hum and cooling plant noise at night. This is particularly relevant as the development includes both BESS infrastructure, inverters and a National Grid substation, as these source types can include tonal, low-frequency or otherwise distinctive acoustic components.

The practical implication for nearby residents is that the likely audibility, character and intrusiveness of operational noise cannot be confidently determined from the information currently provided.

This is particularly important at night, when residual sound levels in rural areas may be low and when tonal or low-frequency components may be more noticeable than would be suggested by broadband A-weighted levels alone.

The absence of transparent source spectra and detailed modelling inputs therefore prevents a robust assessment of whether operational noise would be inconspicuous, clearly audible, adverse, or potentially significant at the most affected dwellings.

When considering background noise levels and statements in the applicants noise reports suggesting reliance on traffic noise to provide masking of operational sound, the accuracy and consideration of spectral make-up of the ambient noise is a key consideration to ensure any consideration of impact is as accurate as possible.

2.2.2 Operational Assessment of Low Frequency Noise

The authors of the noise model have provided a calculated 1/3 octave band façade incident external sound level from estimated noise from both the National Grid Substation and the BESS site.

However, it is not clear how the one-third-octave-band sound power levels from the plant have been determined. For example, manufacturer's data or measurements taken from existing sites. Although the authors state that they have used manufacturers' sound power levels of similar plant, this is not documented and only the A-weighted sound power levels are reported.

Without this information it is not possible to check the validity of the estimated sound levels.

The ES Chapter 12 includes operational plant assessment outputs for high sensitivity residential receptors and identifies residual operational effects as not significant. However, the ability to reach that conclusion is dependent on the accuracy of the assumed source spectra and propagation model. If the underlying frequency data are not provided, the assessment cannot be independently checked against the low-frequency criteria or the tonal audibility method in BS 4142. This is a material limitation because a broadband A-weighted level can mask the presence of a pronounced low-frequency component which may be more noticeable inside dwellings, particularly during the night-time period.

This issue is particularly relevant to electrical infrastructure such as transformers and substations, where tonal or low-frequency components may form an important part of the perceived acoustic character. The assessment should therefore demonstrate not only compliance with broadband noise limits, but also that the frequency content and acoustic character of the predicted sound would not give rise to adverse perceptibility or disturbance at nearby dwellings.

It is also not clear how much absorption from the proposed noise barriers located around the BESS has been estimated in the model, but the effective absorption at low frequencies will be affected by the depth of the absorptive layer. This is due to the length of the soundwave, which is equal to the speed of sound in air (m/s) divided by the frequency of the sound (Hz). This can range from 13.7 m at 25 Hz to 2.1 m at 160 Hz. (See ***Table 2***.) The use of earth bunds, which have a wider footprint as mitigation, would address some of these concerns.

Frequency (Hz)	25	31.5	40	50	63	80	100	125	160
Wavelength (m)	13.7	10.9	8.6	6.9	5.4	4.3	3.4	2.7	2.1

Table 2 – Typical wavelength values (m) for low frequency 1/3 octave bands (Hz).

2.2.3 BS 4142 Acoustic Feature Rating Corrections

The authors have concluded that neither the BESS nor the National Grid Substation produce any tonal sound, despite stating:

> *"High voltage transformers can generate a 100Hz hum due to vibration of the transformer coil. The acoustic modelling exercise indicates that the specific sound level from the high voltage transformers, including the 100Hz tone, is unlikely to be distinguishable at the receptor as it will be masked by other broadband sound relating to the BESS inverters and BESS Containers."*

Annexe C of BS 4142:2014+A1:2019 provides a 1/3 octave band method for assessing the audibility of tones. If the 1/3 octave band data used in the noise model were provided, this would prove/disprove the likelihood of tones and the value to be added to the Rating Level.

In the absence of disclosed one-third-octave data, it is not possible to confirm whether the transformer 100 Hz component would be sufficiently masked at the receptor, or whether it would remain perceptible during periods of low residual sound.

This is important because the assessment appears to rely on the assumption that broadband BESS-related sound will mask any transformer tone. That assumption may not be robust where the BESS cooling plant is operating at reduced night-time duty, or where weather, plant loading or operating mode changes the relative contribution of the transformer and cooling plant sources.

The authors also state:

> *"BESS are designed without any noticeable acoustic features due to the broadband nature of the sound. Noise from the proposed development is not likely to be readily distinctive against the residual sound environment. Therefore, no rating penalty has been applied for 'Other Sound Characteristics'."*

Section 11 of BS 4142:2014+A1:2019 states:

> *"The character and level of the residual sound compared to the character and level of the specific sound. Consider whether it would be beneficial to compare the frequency spectrum and temporal variation of the specific sound with that of the ambient or residual sound to assess the degree to which the specific sound source is likely to be distinguishable and will represent an incongruous sound by comparison to the acoustic environment that would occur in the absence of the specific sound. Any sound parameters, sampling periods and averaging time periods used to undertake character comparisons should reflect the way in which sound of an industrial and/or commercial nature is likely to be perceived and how people react to it."*

If one-third-octave-band or at least one-octave-band data were available from the baseline sound survey, this could be used to show whether the specific sound level is in fact indistinguishable against the residual background. The authors may be relying on the presence of road traffic noise, particularly in the 80 Hz to 160 Hz one-third-octave bands. However, it has not been demonstrated that road traffic is the dominant noise source in all areas, particularly in Great Moulton where the BESS and National Grid substation are proposed. Road traffic in this rural area is sporadic and there are long periods, particularly at night, when there is very little traffic.

The same concern applies to any reliance on road traffic or general residual sound to mask tonal or low-frequency components from the proposed plant. Masking cannot be assumed from short attended observations or from broadband A-weighted sound levels alone. It should be demonstrated using representative night-time frequency data for the residual sound environment and the predicted plant noise. Without that comparison, there remains uncertainty as to whether tonal components, particularly around 100 Hz, would be perceptible at residential receptors during quiet night-time periods.

In the absence of this information, it is not possible to determine whether the operational sound would be appropriately characterised as acoustically neutral, or whether rating penalties for tonality, intermittency, distinctiveness or other acoustic features may be required. T

his is a material issue because even relatively small changes to the rating level may alter the BS 4142 outcome, particularly where representative night-time background sound levels are low.

2.3 Implications for residential receptors

The implications for residents are not that unacceptable noise effects have been conclusively demonstrated at this stage. Rather, the submitted information does not allow those effects to be confidently ruled out. This distinction is important.

Where a proposed development includes substantial operational electrical infrastructure in a quiet rural environment, the assessment should provide sufficient information to demonstrate that noise from the BESS, National Grid substation, transformers, inverters, cooling plant and associated infrastructure would not result in unacceptable effects at the nearest and most affected dwellings.

The current assessment does not provide sufficient transparency regarding final plant specification, source spectra, modelling assumptions, mitigation performance or the representativeness of receptor background sound levels.

As a result, it is not possible to determine with confidence whether operational noise would be insignificant, acceptable subject to mitigation, or potentially adverse at individual residential receptors. This uncertainty is itself material to the planning decision, because the decision-maker must be satisfied that significant adverse effects on health and quality of life would be avoided before consent is granted.

3. Conclusion

Paragraph 4.43 of the Statutory Nuisance Statement states:

> *"A noise assessment has been undertaken and is reported in ES Volume 1, Chapter 12 - Noise and Vibration [EN0110014/APP/6.1.12]. This chapter focuses on an assessment of the likely significant effects on noise and vibration as a result of the Scheme. The noise and vibration assessment concludes that no significant noise or vibration effects are anticipated."*

However, it is not possible to validate this assessment due to the degree of uncertainty in the submitted assessment. This is due to:

- The lack of detail in plant selection, both for the BESS and National Grid substation;
- Operational assumptions such as reduced fan duty at night and the suggestion of acoustic enclosures without details/specifications;
- Lack of spectral data for both the assumed plant noise and the residual/background sound survey;
- Lack of detail regarding the acoustic barrier performance and the propagation of low frequency noise (<160Hz) over distance;
- Insufficient evidence supporting the decision not to add a feature correction to the specific sound level.

Taken together, the available information does not demonstrate that the development would avoid adverse or significant adverse noise impacts with sufficient certainty. The conclusions of the submitted assessment are therefore not robust, as they are dependent on assumptions which have not been substantiated by project-specific data. Accordingly, the Council's position remains that insufficient information has been provided to demonstrate that acceptable noise levels can be achieved and maintained. The absence of confirmed plant specification, lack of frequency-based source and survey data and limited transparency of the modelling approach collectively introduce a substantial level of uncertainty into the assessment. This is not a minor or isolated uncertainty, but one which has the potential to materially alter the outcome of the BS 4142 assessment.

Relatively small changes in the underlying assumptions — including acoustic character corrections and spectral content — may reasonably result in rating levels within a range indicative of adverse or significant adverse impact. In the context of an exceptionally quiet rural environment, such outcomes may be particularly difficult to mitigate effectively through design or operational controls once the site is constructed.

The ES Chapter 12 records that operational plant noise has been assessed against defined LOAEL and SOAEL thresholds and concludes that residual operational effects would not be significant. However, those conclusions are only as reliable as the assumptions on which they are based. The present review identifies several areas where the submitted information does not allow independent verification of the assessment outcome, including the absence of confirmed plant specification, incomplete disclosure of source spectral data, uncertainty over acoustic feature corrections, limited transparency over barrier performance, and uncertainty regarding the representativeness of the residual acoustic environment at Great Moulton.

If the applicant subsequently provides confirmed plant specifications, source sound power spectra, detailed modelling assumptions, mitigation specifications and representative receptor-based background data, it may then be possible to undertake a more definitive assessment of likely operational impacts. Until that information is available, any attempt to quantify the precise degree of impact at individual dwellings would be subject to significant uncertainty.

This raises fundamental concerns regarding reliance on pre-commencement or pre-operational planning conditions to resolve these issues at a later stage. Paragraph 198 of the National Planning Policy Framework requires planning decisions to ensure that development avoids significant adverse impacts on health and quality of life arising from noise.

Where the submitted information does not allow the decision-maker to confidently conclude that unacceptable noise impacts would be avoided, the appropriate conclusion is not that the matter can simply be deferred, but that the assessment is presently insufficient. The associated Planning Practice Guidance sets out the concept of the Significant Observed Adverse Effect Level (SOAEL), above which adverse effects should be avoided. The potential for adverse or significant adverse noise effects cannot be ruled out with the degree of confidence required.

On the information currently submitted, the proposed development has not demonstrated compliance with Policy ENV2 or national planning policy in relation to noise.

On the information currently submitted, the applicant has not demonstrated with sufficient confidence that adverse or significant adverse noise effects would be avoided, particularly at night and in relation to low-frequency and/or tonal operational plant noise.

Noise is a material consideration in the national Planning Framework. Refusal of the application is therefore justified unless and until the applicant provides sufficient project-specific evidence to demonstrate that the BESS, National Grid substation, Inverters and associated noisy infrastructure can operate without causing unacceptable noise impacts at affected residential receptors.

Appendix 3 - Professional Article On Solar/Bess Noise

The source document reproduces professional commentary on the importance of designing noise control into solar/BESS infrastructure from the outset, particularly in quiet rural settings. It is supporting context rather than a substitute for project-specific modelling. The East Pye decision should turn on the project evidence, final plant and enforceable acoustic limits.

Noise Impact Assessment Review

Article, regarding the issue of Noise associated with large NSIP developments. Daniel Clare is managing director at RSK Acoustics – 2 April 2025 -

[The sound of solar: Noise in a sustainable world | New Civil Engine]

The noise associated with solar farms, particularly large developments, can be significant and compounded by their rural locations. In these settings, any additional noise can be noticeable and can have an impact on people using and living in the area, aswell as local wildlife.

It is often assumed that solar farms don't make any noise, that they are silent generators of clean energy. While the panels themselves make no noise, the infrastructure surrounding solar farms that enables energy to reach our homes does create residual noise. It is important to design for this noise at the start of the process to avoid surprise mitigation further down the project's development that could increase costs and delay planning approvals.

When considered at the scale of solar farm installations that we see in the UK, the electrical infrastructure that enables these large -scale connections to the grid can have an impact on existing noise environments if noise is ignored. Typically developed in rural locations where there is sufficient land to house solar photovoltaic (PV) panels, these naturally quieter environments can often mean that low -level noise emissions that would often go unnoticed in an urban environment have the potential to be dis ruptive. Managing this is regulated closely by planning policies to ensure any noise brought by the infrastructure is not harmful to wildlife or residents.

National policies such as the National Planning Policy Framework (NPPF) and the Noise Policy Statement for England (NPSE) both provide specific overarching requirements to protect residents and communities from noise associated with developments and promot e its effective management for good health and quality of life. At a local level, individual councils and authorities will have their own policies, resulting in some national variation and making it crucial to understand what applies to a specific site. An understanding of acoustics is vital to delivering new projects in line with these regulations and for positive community outcomes. Dispelling myths around sound and solar means appropriately anticipating the impact of an installation and designing mitigat ion early on.

On a solar farm, it is the supporting infrastructure, such as battery storage, transformers and substations, that produces noise. The significance of that audible noise is relative to the existing environment and the plant chosen. Identifying the right pro ducts for the development and working closely with the manufacturers allow for greater control over potential noise. Engaging with the manufacturers at this stage also enables collaborative work on designing the plant for greater noise control and quieter operation when installed

Ambient sound levels typically fluctuate through the course of the day – it is usually quieter overnight than during the day – and vary by location. The bustle of a city will create much more noise than rural countryside. This means that a low-level sound generated by a battery energy storage system or transformer may not be noticeable during the day in the middle of a city, but in the countryside it would be. It is also important to bear in mind the cumulative effect of multiple plant and machines running together; it is unlikely that a solar farm will have a single source of noise.

When there is an understanding of these specific environmental factors, and their relationship with the infrastructure to be installed, it becomes possible to manage noise. To most effectively mitigate potential significant noise, incorporating actions into the design is vital. It means not only cost savings against implementing measures later on but also issues can be removed in their entirety.

Layout is particularly important on large sites where significant infrastructure is needed. It is possible to design in a way that is sympathetic to acoustics, moving sources away from receptors such as residents or wildlife or creating noise barriers with needed site structures. These intelligent designs make use of the natural noise-managing properties of terrain, structures and buildings. If this is considered at the design stage, buildings such as offices and substations that are an integral part of the site can be positioned in a way that they serve as these needed noise barriers.

Making these design elements as effective as possible comes down to accurate early estimations of source noise levels. Preparing models that simulate the acoustics of the site means that mitigation can be designed from the beginning. Like in many construction and engineering disciplines, it's always the case that action to eliminate will be taken before action to insulate. The accuracy of models and plans makes this possible. Engaging acoustic specialists early on enables mitigation to be optimised. Working on the early planning and design stages of the project also means that it is possible for cross-discipline collaboration, opening opportunities for solutions to be found together.

Ultimately, by incorporating acoustic considerations from the outset and integrating noise reduction strategies into the design, we not only align with regulations but also foster harmonious relationships with local communities and protect wildlife. Effective noise management is not an afterthought but a crucial element of sustainable solar farm development that ensures long-term success and minimal environmental impact

.

Objections submitted in response to East Pye Solar

PINS Reference: EN0110014

Land Parcel 3

Researched and written by [redacted].

Submitted by BEPS (Block East Pye Solar [redacted])

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Chapter 1: Introduction

Land Parcel 3 - Description and Current Status

Land Parcel 3 is an 82 hectare area of high quality arable farmland, grade 3a and 3b, bordering ancient woodland, lying to the south of the hamlet of Lundy Green, which itself lies to the South of the village of Hempnall.



The main part of Land Parcel 3 is a large flat field edged by hedges, ditches, lines of trees and, to the east, a sizable area of woodland.



The view east along the footpath towards Spring Wood. The field to the right of the path in this image will be entirely covered by Solar Panels, with a fence and security cameras etc.

The other part, to the north of the wood, is another, smaller field, also edged by trees, hedges and the north side of the wood, where there is a strip of mixed woodland. The south east edge of the field borders the Alburgh Road with a hedge and a ditch. There is a ditch between this field and the smaller field leading up to the corner of the wood where it ends and the wood begins.



The view east from the footpath, across the ditch and across the field from the north/south footpath towards the Alburgh Road.

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Executive Summary

Land Parcel 3B is **incapable of lawful, safe or practical delivery**. It is subject to multiple **independent, front-loaded and mutually reinforcing fatal constraints**, including European Protected Species impacts, ancient woodland adjacency, confirmed bat maternity and hibernation sites, extreme unexploded ordnance risk, water pollution pathways to a protected chalk stream, lack of compliant construction access, heritage setting harm, public rights of way severance, harm to tourism businesses, and strategic Great Crested Newt constraints.

Several of these constraints are **absolute**. Others compound so that no realistic mitigation, redesign or licensing pathway exists. Land Parcel 3B is therefore **undeliverable**

in principle, and its inclusion further demonstrates that the East Pye Solar scheme is structurally unsound as a whole.

1. Barbastelle bats – maternity colony adjacency and CSZ overlap

Land Parcel 3B directly adjoins **Spring Wood**, which is both **ancient woodland** and a **confirmed barbastelle maternity colony**. The parcel lies within the associated **Core Sustenance Zone (CSZ)**, meaning the land provides essential functionally linked habitat supporting breeding success.

The proposed development would introduce:

- lighting, noise and vibration;
- prolonged construction disturbance;
- habitat fragmentation and loss of functional connectivity.

On this evidence, offences under the Habitats Regulations **cannot be excluded**, and a **European Protected Species licence would be required**. The application provides **no evidence that the statutory tests could be met**, particularly given the absence of alternative siting and the cumulative CSZ impacts across the wider scheme. This is a **front-loaded legal impediment** that cannot be deferred.

2. Bat hibernacula – WWII bomb shelters

Land Parcel 3B contains **multiple WWII bomb shelters deliberately converted into bat hibernacula**. These constitute protected **bat resting places**, irrespective of current seasonal use.

Ground disturbance, vibration, drainage alteration or microclimate change would risk damage or disturbance to EPS resting places, constituting an offence unless licensed. Given the density of bat features, proximity to a maternity colony and scale of works, **licence grantability is highly doubtful**, reinforcing undeliverability.

3. Great Crested Newts – strategic area

The parcel lies within a **strategic area for Great Crested Newts**, indicating high likelihood of presence and functional habitat connectivity. Development would involve trenching, soil stripping, access works and fencing, materially increasing EPS offence risk.

When combined with the existing barbastelle licensing burden, this creates **licence stacking**, making lawful delivery increasingly unrealistic.

4. Ancient woodland adjacency and ecological network fragmentation

Spring Wood is designated **ancient woodland** and forms part of a wider woodland and habitat network. Development immediately adjacent to ancient woodland is fundamentally constrained and buffers cannot be relied upon for mitigation. It is also a County Wildlife Site.

Security fencing, access tracks and arrays would fragment ecological networks, disrupt deer and wildlife movement, and generate secondary impacts that cannot be resolved without further harm. The parcel is therefore **incompatible with basic ecological protection principles**.

5. Unexploded ordnance – former RAF / USAAF bomb dump

Land Parcel 3B was the **heavy bomb dump serving RAF / USAAF Hardwick Airfield**, with adjacent land forming part of the wider ammunition storage complex. There is a **high likelihood of unexploded ordnance (UXO)**.

This presents:

- a severe risk to construction workers;
- major constraints on piling, trenching and cabling;
- insurability and liability barriers.

UXO risk at this level is not a routine mitigation issue and **materially undermines construction feasibility and programme certainty**, rendering the parcel practically undeliverable.

6. Water environment and contamination pathway – River Tas and white-clawed crayfish

A **watercourse runs through Land Parcel 3B**, forming a direct hydrological pathway to the **River Tas**, which supports **white-clawed crayfish** (a European Protected Species).

The land has a history of **military use**, with associated risk of legacy contamination, including historic pollutants and firefighting foams. Ground disturbance would create a foreseeable risk of contaminant mobilisation into the Tas catchment, potentially:

- committing EPS offences;
- breaching Water Framework Directive objectives;
- creating regulatory and criminal liability.

This risk is inherent to the site and **cannot be mitigated away**.

7. Ground conditions and flooding

The parcel comprises **heavy clay soils** with **groundwater at or near the surface**, subject to seasonal standing water and groundwater flooding. Machinery access is restricted for much of the year.

These conditions undermine:

- construction feasibility;
- pile installation and stability;
- access and long-term maintenance.

Claims of reversibility or temporary impact are **not credible** in these ground conditions.

8. Construction access – absence of compliant B-road access

Highways advice for the scheme requires **construction access from suitable B-class roads**. Land Parcel 3B **cannot be accessed from a B road** and is served only by narrow rural lanes with flooding, sharp bends and residential frontage.

Routing heavy construction traffic through these lanes would be unsafe and unacceptable. Without compliant access, **the parcel fails a basic deliverability test**.

Norfolk Highways has suggested a haul route from site 5. The ecological impact of this has not been assessed.

9. Heritage harm – Lundy Green listed buildings

Land Parcel 3B lies in close proximity to the **cluster of Grade II listed buildings at Lundy Green**, a historic rural hamlet whose significance derives in large part from its agricultural setting and separation from industrial development.

Solar infrastructure would fundamentally alter this setting through scale, fencing, lighting and visual industrialisation. Harm would arise from the **loss of historic rural context**, not isolated viewpoints, and cannot be mitigated without further eroding openness.

This represents **high-weight designated heritage harm** that compounds other fatal constraints.

10. Public rights of way – severance and experiential harm

Public rights of way cross and skirt Land Parcel 3B. Development would force walkers through fenced corridors with extensive arrays on either side, destroying openness, tranquillity and landscape experience.

This constitutes **qualitative severance**, not minor diversion, and conflicts with countryside access and wellbeing objectives.

11. Harm to tourism and holiday-let businesses

The area supports **holiday-let accommodation and rural tourism**, reliant on landscape quality, tranquillity, dark skies and access to woodland and public footpaths.

Industrial solar development would materially harm the attractiveness and viability of these businesses through:

- visual dominance;
- lighting;
- loss of landscape character;

- degraded visitor experience.

This is an **economic and social harm**, adding further weight to the planning balance against development.

12. Aviation safety – active runways and overlapping EFATO zones

Land Parcel 3B lies in the **immediate vicinity of two active airfields**, both with **operational runways within approximately 500 metres** of the site. One runway has an **EFATO (Engine Failure After Take-Off) safeguarding zone directly over Land Parcel 3A**, while the other has an **EFATO zone incorporating Land Parcel 3B** itself.

EFATO zones represent the **highest-risk phase of flight**, where aircraft and gliders experiencing power loss must execute emergency manoeuvres at low altitude with minimal margin for error. Within these zones, any development that introduces:

- physical obstruction,
- reflective surfaces,
- fencing,
- lighting,
- turbulence or thermal disruption,
- or construction activity involving cranes and plant,

creates an **unacceptable and unmitigable safety risk**.

The proximity of **two active runways**, with **overlapping EFATO constraints affecting both Land Parcels 3A and 3B**, means that aviation risk at this location is **not incidental but structural.**

These runways do not form part of the Applicant's Glint and Glare assessment.

13. Private water supply – Farmhouse, Shelton (holiday let)

A **private water supply serving Farmhouse, Shelton**, which operates as a **holiday let business**, is located approximately **50 metres south of Land Parcel 3B**. This supply is reliant on local groundwater and is therefore highly sensitive to changes in water quality, sediment mobilisation and contamination.

Land Parcel 3B has a documented history of **military use**, including bomb storage and associated activities, giving rise to a credible risk of **legacy soil contamination**, including historic pollutants and firefighting foams. The proposed development would involve extensive ground disturbance, excavation, vehicle loading and soil handling, all of which create a **foreseeable pathway for contaminants to enter groundwater** supplying the private abstraction.

Any deterioration in the quality or reliability of this private water supply would have **direct implications for human health**, would undermine the lawful operation of the holiday let, and would expose the developer to **significant legal and civil liability**. In the absence of comprehensive site-specific investigation and enforceable protection measures—which are not provided—this risk **cannot be mitigated or deferred**. The proximity of the abstraction point (c.50 m) places it well within the zone of influence of construction activity, rendering Land Parcel 3B **undeliverable in principle**.

14. Private water supply and Drinking Water Protection Zone – Park Farm (3A)

A further **private water supply serving Park Farm** is located within **Land Parcel 3A**, which lies within a **Drinking Water Protection Zone**. This supply is reliant on local groundwater and is therefore highly sensitive to disturbance, pollution pathways and changes in hydrogeological conditions.

Land Parcel 3A has been now been removed from the scheme due to constraints. .However, Land Parcel 3A is subject to **the same fundamental constraints** as Parcel 3B, including:

- proximity to ancient woodland and barbastelle Core Sustenance Zones;
- historic military land use and associated contamination risk;
- groundwater vulnerability and surface–groundwater interaction;
- aviation safeguarding and EFATO constraints.

Using land that is itself constrained by **drinking water protection requirements and private abstractions** as mitigation is inherently flawed. Ground disturbance, planting, drainage works or habitat manipulation within Parcel 3A would create **foreseeable risk to the private water supply**, engaging human health considerations and regulatory controls that have not been assessed.

In these circumstances, Parcel 3A **cannot function as mitigation land**. This demonstrates that the scheme's mitigation strategy is **circular and ineffective**, and further confirms that **Land Parcel 3B is undeliverable in principle**, with no lawful or viable mitigation pathway available.

Overall conclusion – Land Parcel 3B

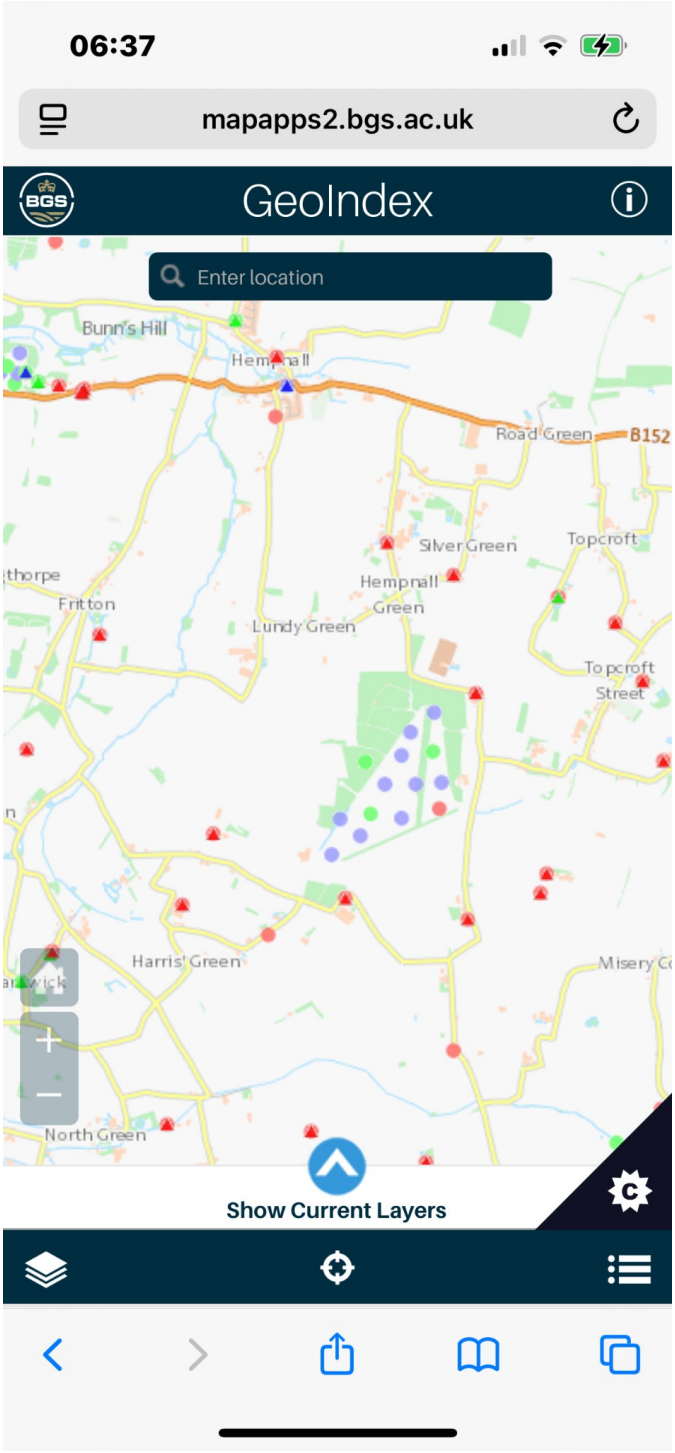
Land Parcel 3B is subject to **multiple independent fatal flaws**, including:

- adjacency to ancient woodland and a **barbastelle maternity colony**;
- **bat hibernacula** directly adjoining the site;
- strategic **Great Crested Newt** constraints;
- **UXO risk** from historic WWII USAAF Hardwick bomb dump;
- Historic Soil contamination from WWII airfield including from firefighting foams.
- direct **pollution pathways to the River Tas** affecting white-clawed crayfish;
- severe **ground conditions and flooding**;
- absence of lawful **B-road construction access**;
- designated **heritage setting harm** at Lundy Green;
- **public rights of way severance**;
- and **harm to tourism and holiday-let businesses**.
- Impact to private drinking water supplies.

These constraints are **front-loaded, non-mitigable and mutually reinforcing**. They cannot be resolved through design refinement, conditions or post-consent licensing.

Land Parcel 3B (and 3A) is undeliverable in principle, failing on European Protected Species law, ancient woodland protection, public safety (UXO and aviation), water environment compliance, physical access feasibility, heritage protection, public rights of way, and socio-economic impact. The presence of **two active runways with overlapping EFATO safeguarding zones within 500 metres of the site removes any residual margin for lawful or safe development**, and confirms that this parcel cannot form part of a deliverable scheme.

Chapter 2: Environmental Impact Assessment Methodology



Water supplies surveys and consultation

EPS should have mentioned the following private water supplies -

The map shows 3 private water supplies affected by LP3.

One at **Park Farm**, a private house which is also in a drinking water protection zone.

This supply is reliant on local groundwater and is therefore highly sensitive to disturbance, pollution pathways and changes in hydrogeological conditions.

One at **Farmhouse**, Shelton, a holiday let business reliant on local groundwater and is therefore highly sensitive to changes in water quality, sediment mobilisation and contamination.

And one at **Spring Lane Farm**, a farmhouse on the corner of spring lane near the south east corner of Spring Wood

Spring Wood

Spring Wood is a mixture of ancient woodland, replanted ancient woodland and modern plantation as a timber source. The ancient woodland consists of ancient oak trees that line the edge of Spring Wood where it abuts the main solar panel field of LP3. This proximity to the solar array and the consequent fencing and security apparatus is concerning.

"New development is frequently associated with the destruction or alteration of semi-natural habitats in the vicinity of ancient woods and the creation of large areas of terrain inhospitable for woodland species. Developments that create chemical or disturbance effects that penetrate nearby ancient woods may also effectively reduce them to smaller habitat islands. All types of development may lead to further isolation of ancient woodland:
increasing distances between favourable habitats that species must cross;
interrupting natural flows between habitats; and sub-dividing populations."
(Woodland Trust - Impacts of nearby development on the ecology of ancient woodland)

Woodland Priority Habitat Network (England) - High Spatial Priority
Woodland Improvement (England) - High Spatial Priority

Woodland - Ancient Woodland (England) - Ancient Replanted Woodland
Priority Habitat Inventory - Deciduous Woodland (England)

Well Surveys

There should have been well surveys carried out. There are a number of houses with wells that could be adversely affected.

Flora -

Botanical surveys should have been carried out in the correct season etc. There is evidence of rare plants being found in many locations in the overall scheme. This is an important consideration.

Bats -

There are documented surveys carried out by BEPS that show that Spring Wood has active Barbastelle Bat roosts within it and a confirmed Barbastelle maternity colony. Also Previous WW2 airfield bunkers in the wood were converted to Barbastelle Bat hibernacula which are very much active. These critically endangered bats also forage over the entire area of LP3

Great Crested Newts -

Almost the entire area of LP3 shows positive in the Great Crested Newts Strategic Operation areas (England) map -

Fringe 2 to Fringe 6. Core 3 to Core 6

There are Great Crested Newts in the general area covered by LP3. Photographic evidence of such exists. Surveys would have to have been carried out at the correct time(s) of year to determine their presence. There are many ponds in the curtilage of houses and farms in Lundy Green and beyond which should be surveyed for breeding populations.

Most of LP3 is a Countryside Stewardship Management Area (England)

All of LP3 is High Level Stewardship Theme area (East England Area)

LP3 is a Priority Area for CS Targeting - Lapwing

And is part of the Countryside Stewardship Scheme - Grey Partridge

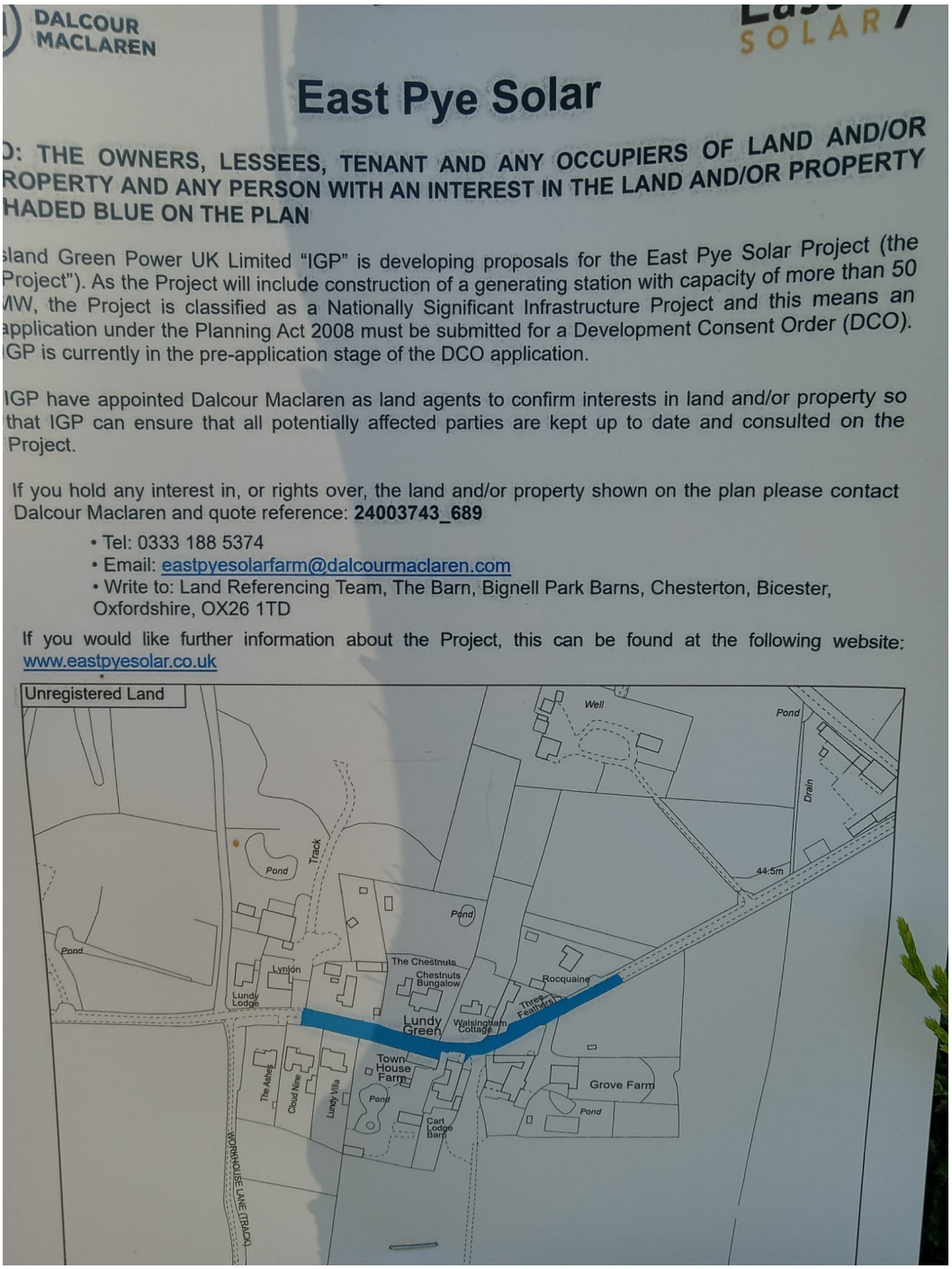
And part of the Countryside Stewardship Scheme - Turtle Dove

Insensitive communications - LIQs

Maps were posted (literally, on posts) by Dalcour Mclaren and East Pye Solar outlining the land where the cable routes were proposed to be sited. These maps are the same as the routes outlined on the PL3 map. They are vague in the extreme as they give no information as to where the cable routes would go in any detail. They encompass around 50% of the area of the large fields they would cross, and fail to indicate where the cables would cross Lundy Green Road and for that matter how they would cross the road.

Other maps and letters were sent to residents of Lundy Green inquiring about ownership of the verges on Lundy Green Road, leaving residents fearing the road widening plans would be imposed on them leading to unwelcome construction traffic being routed down Lundy Green Road. Many feared that Compulsory Purchase orders might be invoked.

This left residents unsure whether the roadside boundary hedges were going to be cut down and verges tarmacked over or otherwise spoilt.



Utilities Surveys

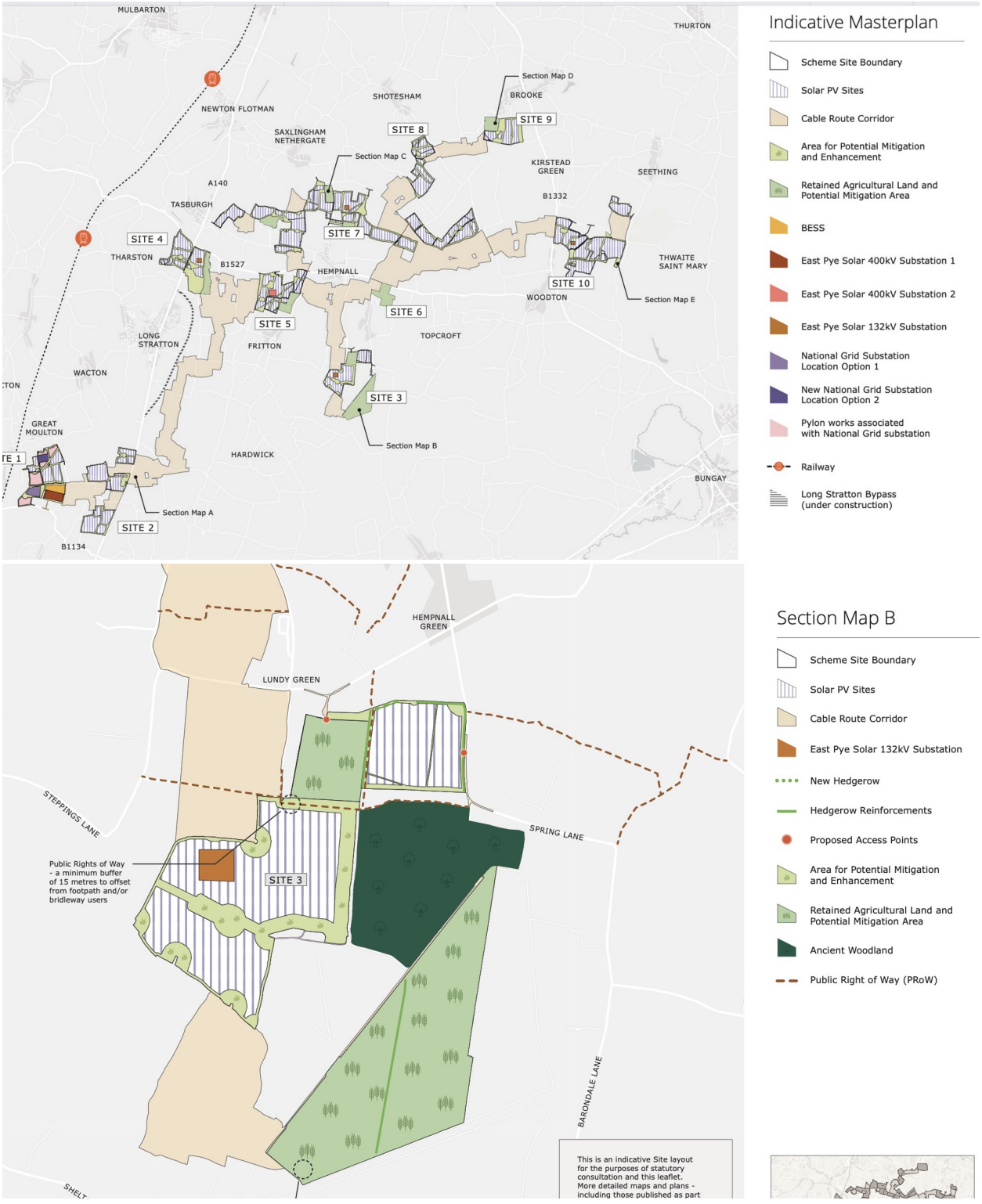
Utilities surveys should have been carried out, concerning power lines, any gas infrastructure, telephone and fibre optic cables which may be affected by construction or the completed scheme itself.

Views from listed buildings and impacted homes

Views from affected buildings, including listed buildings should be documented and analysed. Several buildings in Lundy Green would be adversely affected by the presence of the solar ‘farm’ on LP3.

No such views from Grove Farmhouse, Lundy Green, a potentially impacted building, were documented by EPS. Whether views from other impacted buildings were documented should be investigated.

Chapter 3: Site and Surroundings



NOTE - The substation has been withdrawn. It is not in the plans as submitted.

South Norfolk Council's website - NSIP - East Pye Solar - Island Green Power page

The Scheme as a Whole

East Pye Solar Ltd, part of Island Green Power, is introducing plans for a utility scale solar and battery energy storage system (BESS) on land near Long Stratton in South Norfolk, England.

The Project looks to deliver up to 500 megawatts (MW) of homegrown, renewable electricity through ground-mounted solar photovoltaic (PV) panels. We are advised this would be enough electricity to power approximately 115,000 homes and businesses annually. The scheme comprises of the construction, operation and maintenance, decommissioning of a ground-mounted solar photovoltaic (PV) generating station and associated development, including:

• A BESS;

• A number of 132kV substations location within the Solar PV Sites;

• Two 400kV substations, one adjoining the BESS site and one within Site 5; and

• A new National Grid substation operated by National Grid Electricity Transmission plc.

The scheme also involves grid connection infrastructure including works to the existing 400k overhead line and associated pylon(s), which may include relocation or moving

existing pylons, new pylons, temporary replacement pylons and restringing of overhead line. Undergrounding electricity cabling will run between the Solar PV sites within the Cable Route Corridor to connect to the BESS and National Grid Substation.

The operational phase of the scheme is expected to be 60 years. The project site currently being considered to host the Solar PV, BESS, substations, cable route corridor and associated equipment are at multiple locations, amounting to approximately 2,232 hectares (ha) of land.

Land Parcel 3 -

LP3 comprises 82 hectares of this scheme and would be connected by a long and complex cable corridor to the next nearest land parcel over a kilometre away. .

WW2 - possible soil contamination etc



Aircrews of the 93rd BG 329th BS pose on top and under wing of a B-24 Liberator at Hardwick airfield in UK on 28 May 1943.

Much of the area covered by the woodland to the east (and part of LP3) was very different in World War II. It was an American bomber base (RAF/USAAF Hardwick) and remnants of the buildings and shelters still exist amongst the trees. There is concern about the possibility of unexploded ordnance under the north east part of LP3 where it adjoins the wood, as that

was where the heavy bomb dump was located. There is also concern about any contamination still held in the soil leaching out into the water supply and general environment if the soil is disturbed. Several houses in the Spring Wood area have private water supplies. Also the surface water drainage ends up in the River Tas which has a population of White-Clawed Crayfish, a highly protected species which is very sensitive to disturbance and to contamination of the water supply.



The 1942 aerial photo opposite overlaid on a 2011 map. (Map by [redacted]

see his Geomapping pages)


93RD BOMBARDMENT GROUP (HEAVY)
328TH, 329TH, 330TH AND 409TH BOMBARDMENT SQUADRONS
AND ATTACHED UNITS
20TH COMBAT WING SECOND AIR DIVISION
8TH UNITED STATES ARMY AIR FORCE
FROM THIS AIRFIELD AND OTHERS IN ENGLAND AND NORTH AFRICA, THE 93RD GROUP FLEW A TOTAL OF 391 COMBAT MISSIONS IN SUPPORT OF THE ALLIED WAR EFFORT DURING WORLD WAR II. THESE MISSIONS WERE FLOWN FROM 9 OCTOBER 1942 UNTIL 25 APRIL 1945.
THIS MONUMENT IS DEDICATED TO THE MEMORY OF THOSE LOST IN THE WAR AND TO THE SURVIVORS WHO HELPED ACHIEVE ULTIMATE PEACE AND VICTORY
328 SQDN.
329 SQDN.
330 SQDN.
409 SQDN.
TWO MEDALS OF HONOR
TWO PRESIDENTIAL UNIT CITATIONS: NORTH AFRICA AND PLOESTI
BATTLES AND CAMPAIGNS
AMERICAN THEATER ★ ANTISUBMARINE ATO ★ AIR COMBAT-EAME THEATER ★ AIR OFFENSIVE-EUROPE ★ ANTISUBMARINE-ETO ★ EGYPT-LIYBIA ★ PLOESTI ★ TUNISIA ★ NAPLES-FOGGIA ★ SICILY ★ NORMANDY ★ NORTHERN FRANCE ★ RHINELAND ★ ARDENNES-ALSACE ★ CENTRAL EUROPE
DEDICATED 25 MAY 1987
H L. PERFITT DISS.

Lundy Green

Lundy Green is a small, very quiet hamlet to the south of Hempnall, to the south west of Hempnall Green and west of Silver Green. A single track country lane passes through it, with driveways serving as passing places when the need arises. There are several grade ll listed buildings in the main part of the village, alongside a few old, unlisted but significant buildings and some modern bungalows.



Lundy Green Road looking east from the junction with Workhouse Lane (Farm track, public bridleway)



Lundy Green Road, a short distance further along to the east



Lundy Green Road, looking west from outside The Chestnuts, a listed building



Lundy Green Road, looking west from outside Grove Farm Barn.



Lundy Green Road, looking west from outside Three Feathers, a listed building and Grove Farmhouse, a non listed but significant building



Lundy Green Road, looking west as it passes Hempnall House



Lundy Green Road, looking west from a passing place outside Hempnall House



Lundy Green Road, looking west past Town Green Farm, a listed building



A typical scene on Lundy Green Road, outside Town Green Farm, a listed building

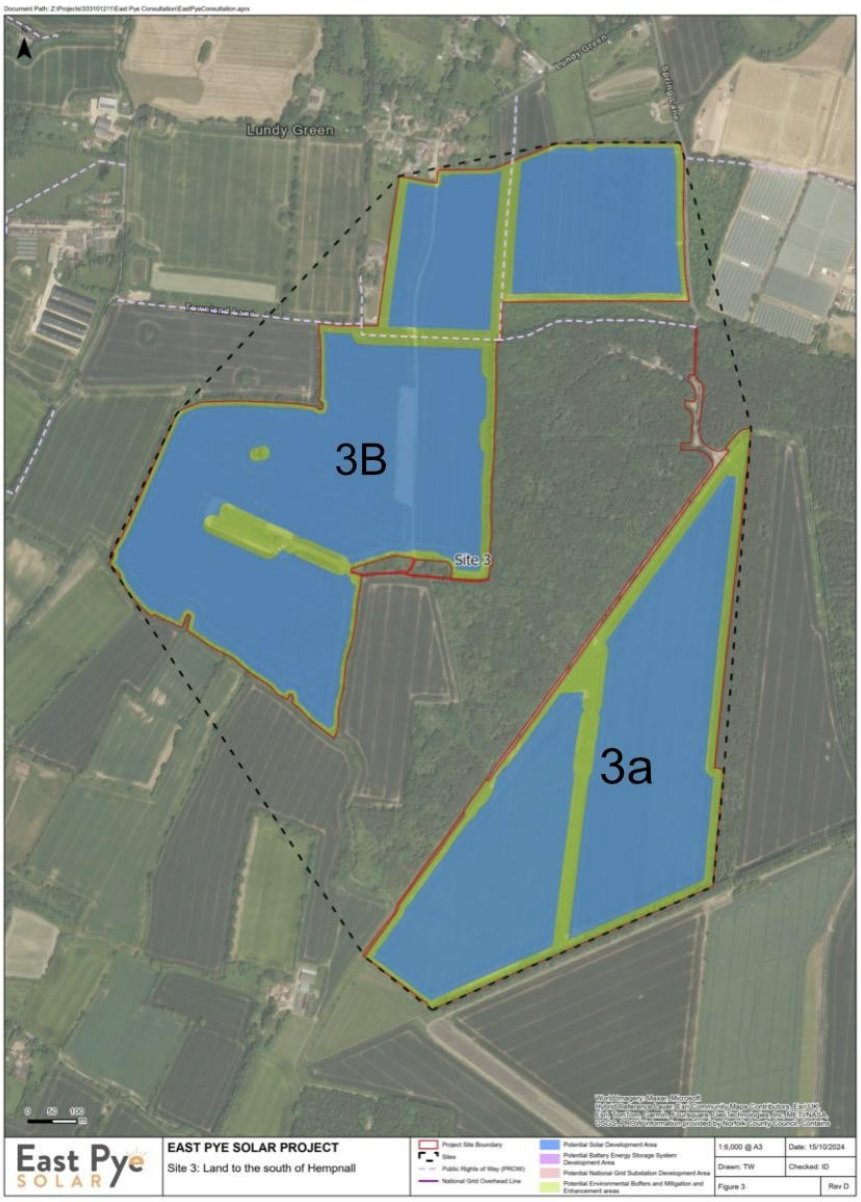
Chapter 4: Reasonable Alternatives and Design Evolution

Alternative Sites -

If any alternative sites to LP3 have been identified they need to be suggested.They were not apparent at any of the statutory consultations. No input from the community was sought.

Changes in the Design since the First Proposal -

The design has been changed since the first proposal. **LP3a**-as-was has been designated as a Retained Agricultural Land and Potential Mitigation area, as has the field between Lundy Green and the east/west footpath from Spring Wood to Workhouse Farm.



Map of original plan for LP3



Map of the plan proposed for LP3 (The substation is no longer proposed. There is no substation in the submitted plans for site 3)

The land to the south between LP3a-as-was and LP3 designated as part of the cable corridor should no longer be considered necessary as LP3a was redesignated as agricultural land/mitigation.

LP3 was previously named LP3b

The two fields in the plan for site 3 in the map finally submitted, have a new rectangular area between them which is proposed as part of the cable corridor. To access the larger field from the smaller field there will need to be an access road built running north east/south west near the north west corner of Spring wood, as well as a cable run joining the two fields.. This will seriously disrupt two footpaths, requiring their closure during construction, or possible rerouting if that is feasible. This has not been mentioned in the submission at all.

Issues Potentially Resolved -

The field between Lundy Green and the Spring Wood footpath redesignated as Agricultural/mitigation have put a greater distance between the houses in Lundy Green

that backed on to LP3b-as-was. That has helped a few residents somewhat but has resolved little else.

LP3a as was being redesignated has potentially slightly eased some environmental issues but not helped the overall issues LP3 has.

Community Involvement in Shaping the Design -

There has been very little Community Involvement in reshaping the design. What consultation the affected communities had only came after the whole layout of the solar 'farm' had been mapped out and contractually agreed with the landowners. Local communities were presented with what was largely a fait accompli. No consultation about siting of LP3 was carried out before the initial plan was suddenly dropped on the community. Allowing people to complain at various consultations is not 'working closely with the community'. Neither is concocting a scheme, in secret, with local farmers to reward them financially to give good agricultural land over to industrial scale solar power production.

The Statutory Consultation was far too brief, considering the amount of information available and the impact the proposals would make on the local communities and way of life. The people conducting it were not knowledgeable and there were many concerns which were not addressed.

The Final Design as a Response to the Key Issues Known to Affect This Site -

The Final Design does not address many of the key issues affecting this site. These are described in detail in the **Executive Summary,** but include; loss of high quality agricultural land, loss of amenity for the local community, lack of protection for critically threatened and highly protected wildlife, Possibility of unexploded ordnance due to a previous WW2 Airbase on the land, change in character from agricultural to large scale industrial and threat of contamination to private water supply to name a few.

Chapter 5: Scheme Description for this land parcel



The proposal for LP3 is that 82 hectare area of high quality arable farmland, grade 3a and 3b, bordering ancient woodland, lying to the south of the hamlet of Lundy Green, will be the site of a large solar farm consisting of 4.5 metre high tracking solar panels (substation withdrawn from submission) and land designated for a cable route. There are areas that have been removed from the original, larger scheme that have been set aside as ‘retained agricultural land and potential mitigation areas’. Some 15 metre ‘Areas for potential mitigation and enhancement’ have been proposed beside and along footpaths that cross the site and also alongside Spring Wood and other areas where belts of trees exist. With the exception of the footpath running north/south from the corner of Spring Wood. This has no 15 metre mitigation strip between it and the solar field to its west, just the other side of the ditch.

Chapter 6: Climate Change

The EIA fails to provide a robust, site-specific assessment of the scheme's resilience to climate change and the potential for the development itself to exacerbate local climate risks.

There is no quantification or modelling of how the extensive area of solar panels may increase surface water runoff, exacerbate flash flooding, or alter groundwater recharge, particularly in light of climate projections for more intense rainfall events.

Nor does the EIA consider whether the introduction of large-scale hard infrastructure could lead to localised overheating, changes in wind patterns, or drought vulnerability affecting adjacent farmland and communities.

The absence of a detailed local climate risk assessment and adaptation strategy falls short of best practice and EN-1 requirements for demonstrating that both the project and surrounding communities will not be made more vulnerable as a result of the development.

Chapter 7: Landscape and Visual

A major feature of LP3 is the rural character of the landscape. The fields proposed for siting the solar panels are productive farmland which has been farmed for generations. They sit next to Spring Wood, part of which is ancient woodland. The resulting views over the fields are important to and much loved by the local community.

Physically, the presence of hundreds of 4.5 metre high solar panels in serried ranks, each about the size of a double decker bus, surrounded by fencing and security lights etc would be considerable. The solar panel array and its fencing will be highly visible from many parts of Alburgh road and Lundy Green Road, from several footpaths as well as from the curtilage of many houses in Lundy Green, several of which are grade ll listed.

At present (feb 2026) LP3 is under cultivation, and has been so for generations. To my memory going back several years crops grown have included wheat, peas, oil seed rape and sugar beet.



Public Rights of Way



A footpath runs north/south from Lundy Green Road up to Spring Wood, where it joins another footpath running west to east from the edge of the wood to the top of Workhouse Lane.

The first footpath would, as the map indicates, be only separated from a huge array of 4.5 metre high solar panels, fencing and security lights by a patchy hedge and a ditch. EPS say there will be a minimum of 15 metres of buffer between the footpath and Solar Array. The solar array on this field would stretch all the way to the Alburgh Road to the east and to Spring Wood to the north



The north/south footpath, viewed from near Lundy Green Road, looking north.



The view east from the north/south footpath over the smaller solar field towards the Alburgh road, just past the line of hedging

The second footpath runs east/west from the Alburgh Road along the north end of Spring Wood then continues along the northern edge of LP3. This footpath is totally exposed and would only be separated from a huge array of 4.5 metre high solar panels, fencing and security lights stretching out past Workhouse Farm to the east, and to the south through one distant belt of trees to another beyond, by a suggested 15 metre buffer zone which, it has been suggested by EPS, may be planted to try to screen the panels from view. That would obviously take a decade or so to have any effect.

These footpaths are much used by local people walking in the countryside and exercising their dogs. The presence of all the aforementioned solar paraphernalia would severely detract from any pleasure gained using this local amenity.



View along the east/west footpath, looking west from the corner of Spring Wood towards Workhouse Farm, visible in the distance





The view along the east/west footpath, from near Workhouse Farm, looking east towards Spring Wood



View from the east/west footpath, looking south along the edge of Spring Wood, over the larger solar field



The view from the east west footpath, looking south west over the larger solar field towards the site of the substation, which would be behind the line of hedges



The view south from the east/west footpath, looking over the larger solar field. Note the water retention and the necessity for caterpillar tracked vehicles on this waterlogged surface



View north from the east/west footpath, from the edge of the larger solar field which is immediately behind the viewer, along a rutted and waterlogged farm track to Lundy Green



The view north from the east/west footpath along the continuation of the farm track from the previous image, across the larger solar field



View from the east/west footpath, west towards Workhouse Farm, showing the proximity of the solar panel field to the curtilage of Workhouse Farm and to its outbuildings



View from where the east west footpath crosses a ditch and continues on the north side of it. The west corner of the larger solar field lies immediately on the south side of the ditch

Chapter 8: Ecology and Biodiversity

Introduction

8.1 Barbastelle Bats

Where a proposed NSIP is located wholly within overlapping Core Sustenance Zones for barbastelle bats and directly adjacent to multiple ancient woodlands supporting maternity colonies, the impacts of construction disturbance, habitat fragmentation, lighting, noise and long-term landscape disruption are **intrinsic to the scheme** and **cannot be reduced to a level that avoids adverse effects on the local barbastelle population's favourable conservation status**.



Spring Wood, Hempnall Green

The row of mature oaks running along the entire west side of Spring Wood where it meets the main LP3 field contain Barbastelle roosts and maternity colonies. Feeding bats are active along that edge of the wood and forage actively over the main LP3 fields, in other

parts of the wood to the north west and over a wide area encompassing at least five core sustenance zones.

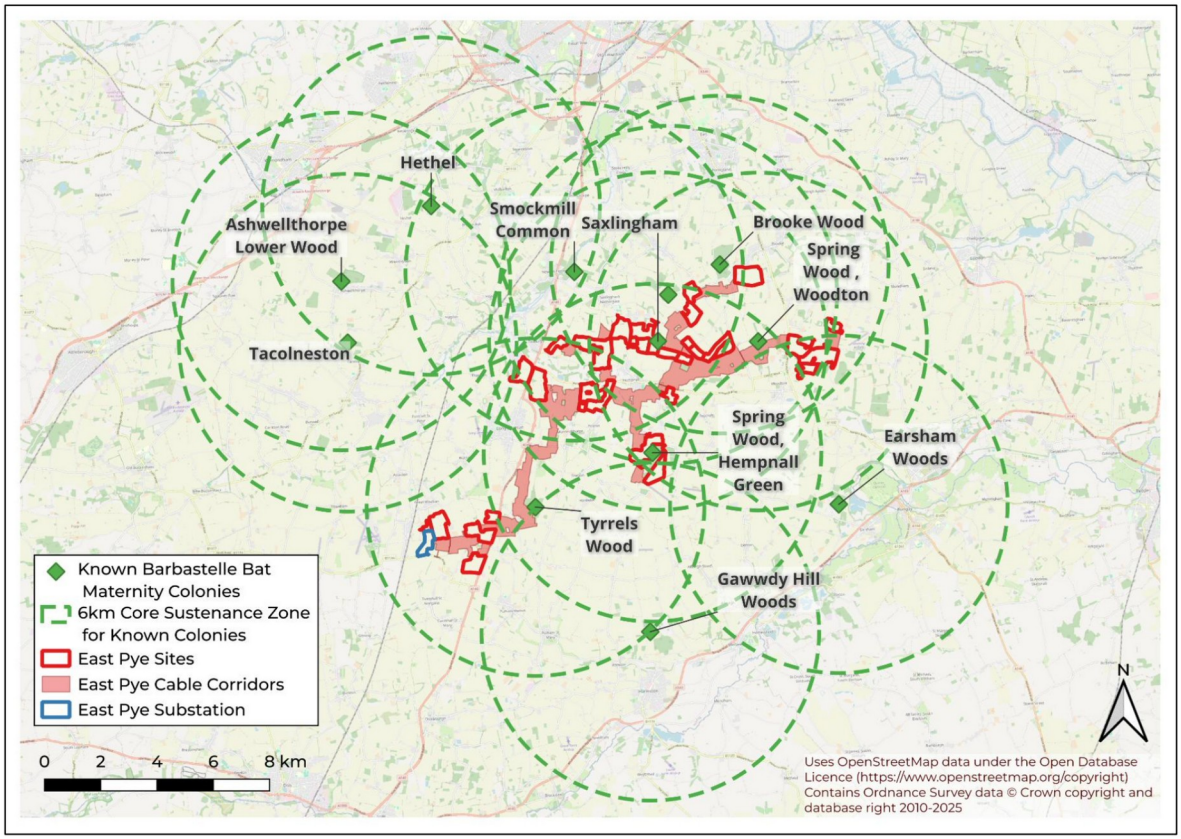


Figure 1. Core Sustenance Zones of Barbastelle Maternity Colonies within or close to the East Pye Solar Scheme Area

There are several old WWII bunkers running along the west side of Spring Wood along the entire length of the land parcel. These were converted into Bat hibernacula several years ago by the landowner, (of LP3, how times change. .) who specifically designated the area as a bat conservation area and even cited disturbance to bats as an objection to a previous planning application for the site.



WW2 bunker, now Barbastelle bat hibernacula

The construction and operation of large areas of solar panels, such as that proposed for LP3 is problematic for bats in several ways.

The noise, vibration, lighting, habitat fragmentation and general disruption caused by the construction phase would progressively impact their mode of living and their ability to feed. Quite possibly affecting the viability of the colonies' continued existence.

On completion, the solar panels' large reflective surfaces can confuse them and even, when horizontal, endanger them as they can mistake these reflective surfaces for a body of water and harm themselves.

Birds

Turtle Doves

Countryside Stewardship Scheme - Turtle Dove

Lapwing

Priority Area for CS Targeting - Lapwing

Grey Partridge

Countryside Stewardship Scheme - Grey Partridge

Birds - Farmland Birds -

Many species of bird are native to LP3. Some are on the red list and some on the amber list of endangered species. The solar scheme would be disruptive to their feeding and breeding areas. Some species are closely associated with farming practice, feeding on insects etc churned up by the plough and foraging over fields of crops.

Red List -
Grey Partridge
Turtle Dove
House Sparrow
Skylark
Greenfinch
Yellowhammer

Amber List -
Wood Pigeon
Black Headed Gull
Tawny Owl
Sparrowhawk
Kestrel
Rook
Wren
Song Thrush
Redwing
Dunnock
Bull Finch

Birds observed within 1.3 km of centre of area-
Chaffinch
Carrion Crow
Song Thrush
Fieldfare
Mistle Thrush
Song Thrush

Redwing
Barn Owl
Willow Warbler
Shelduck
Lesser Whitethroat
Blue Tit
Great Tit
Swallow
Pheasant
Robin
Blackbird
Yellowhammer
Whitethroat
Skylark
Rook
Chiffchaff
Swallow
House Sparrow
Dunnock
Starling
Pheasant
Red Legged Partridge
Lapwing
Wren
Tawny Owl
Redshank
Long Tailed Tit
Bullfinch
Green Woodpecker
Coal Tit
Wren
Magpie
Collared Dove
Goldfinch
Sparrowhawk
Brambling
Spotted Flycatcher
Jay

Greenfinch
Tree creeper
Great Spotted Woodpecker

Animals -

Deer and other animals live in and around Spring Wood and feed on agricultural land. They use the footpaths as access routes to other fields in their range. Fences would restrict where they could go. They wouldn't be able to leave Spring Wood anywhere on its considerable east side and be forced to risk the west side which has a busy road running near it and alongside it in places. Deer get hit by cars quite frequently, which is a danger to the public as well as to them.
Other animals' feeding behaviour would be disrupted if not entirely curtailed by the solar panel fields.

Hedgehog
Natterers Bat
Red Deer
Roe Deer
Muntjac

insects -

Surveys should be carried out to ascertain the extent to which rare and more common insects are present, and to determine the effect of the solar scheme on them and their habitat.

Southern Hawker
Migrant Hawker
Meadow Grasshopper
Roesel's Bush Cricket
Dark Bush Cricket
Common Green Grasshopper
Common Darter
Large White
Meadow Brown
Large skipper
Small Skipper

Ringlet
Small White
Green Veined White
Gatekeeper

8.6 Great Crested Newts

Almost the entire area of LP3 shows positive in the Great Crested Newts Strategic Operation areas (England) map - (source Magic Map)

Fringe 2 to Fringe 6. Core 3 to Core 6

There are Great Crested Newts in the general area covered by LP3. Photographic evidence of such exists. Surveys would have to have been carried out at the correct time(s) of year to determine their presence. There are many ponds in the curtilage of houses and farms in Lundy Green and beyond which should be surveyed for breeding populations.

The photos show Great Crested Newts present at Grove Farmhouse in Lundy Green. One of the houses affected by LP3 solar arrays etc.









8.7 River Tas – Protected Chalk Stream

Water draining from LP3, through ditches and watercourses flows eventually into the River Tas.

8.8 White Clawed Crayfish

A **watercourse runs through Land Parcel 3B**, forming a direct hydrological pathway to the **River Tas**, which supports **white-clawed crayfish** (a European Protected Species).

8.9 Hedgerows and Significant Trees

The proposed cable route could threaten hedgerows and several significant trees along its course. Its actual detailed course, if known, would determine which hedges and trees were endangered. The plans at present are unclear on this detail.

8.10 Rare Flora

Surveys of flora should be done to find and highlight any rare or endangered species that would be affected by LP3's change of use from agricultural to industrial

8.11 Inadequate Mitigation for Common Species

Many common farmland and garden birds, some on the amber and red lists, feed and nest in the hedges and field margins in and around LP3. There should be mitigation taken to protect them and their habitat.

There are common mammal species such as foxes, badgers, rabbits, voles, mice and deer in Spring Wood and in the surrounding fields and hedges. The transformation of LP3 into an industrial scale solar farm would disturb and disrupt their feeding and breeding irrevocably, especially the larger mammals such as Red Deer, a herd of which live in Spring Wood and feed in the fields near the south end of the wood. This herd, and Roe Deer and Muntjacs would have their movements restricted by fences and lights etc and their feeding grounds replaced by solar panel arrays. They may get driven out altogether. If so, where would they go? Foxes would be driven to forage in the gardens of the nearest houses, several of which keep chickens and are subject to occasional fox predation. This could get much more prevalent.

A survey of mammals, amphibians and reptiles should have been carried out.

Chapter 9: Water Environment

Introduction

9.1 Rivers, Streams, Ditches, Culverts

A watercourse runs through Land Parcel 3B, forming a direct hydrological pathway to the River Tas, which supports white-clawed crayfish (a European Protected Species).

9.2 Flooding

Flooding assessment should be carried out. The ground is prone to retaining surface water due to soil's high clay content.

9.3 Public Drinking Water Supplies

Risks to public drinking water supplies should be assessed

9.4 Private Drinking Water Supplies

There are several private drinking water supplies in the LP3 area, including wells

9.5 Drinking Water Protection Zone (SPZs)

Land parcel 3 is covered by a drinking water protection zone.

9.6 Contamination risks to Public and Private Drinking Water Supplies

The land has a history of military use, with associated risk of legacy contamination, including historic pollutants and firefighting foams. Ground disturbance would create a foreseeable risk of contaminant mobilisation into the Tas catchment.

9.7 Risks of Pile-Driven and Concrete-Mounted Infrastructure to Private Drinking Water Supplies

See 9.6 except in reference to private water supplies, including wells.

9.8 River Catchment Area

LP3 is in The River Tas catchment area.

Chapter 10: Cultural Heritage

Introduction

10.1 Impacts to Conservation Area

10.2 Impacts to Setting of Conservation Area

10.3 Impacts to Grade 1 Listed Churches

10.4 Impacts to Grade II* Listed Buildings

10.5 Impacts to Grade II Listed Buildings

There are several Grade ll listed buildings in Lundy Green that would be affected by proximity to the solar scheme on LP3.

Three Feathers - 1151135



Barn and Stable Range Adjoining Three Feathers to the South West - 1050334



Rose Cottage - 1304365



Townhouse Farmhouse - 1153325



Chestnuts Farmhouse - 1373241



Hempnall House - 1262145



These would all be affected by noise during construction.

The larger solar panel field would be visible from the curtilage of Townhouse Farmhouse



View south from Lundy Green, from behind Grove Farm Barn. The solar panel array and fencing etc would dominate the horizon line and obliterate the view of Spring Wood

10.6 Impacts to Pre-Modern Agricultural Landscape

10.7 Archaeology

10.8 Community Identity and Well-Being Rooted in Cultural Heritage and Historic Landscape

The solar array proposed for LP3 would also be visible from much of the quiet hamlet of Lundy Green which incorporates several listed buildings and several old, unlisted but significant buildings. A small, quiet country lane runs through it, crossed by footpaths and

bridleways and bordered by old hedges, ditches and many significant trees. LP3 is visible from many of the listed and unlisted buildings and their curtilage and forms part of the rural view they would normally enjoy, changing its rural character to that of an industrial landscape, drastically altering its historic rural context. For a community historically built around farming this is a drastic change of land use, and one that would have a deep impact on the well-being of the local community.

Chapter 11: Transport and Access

Introduction-

A project of this scale of this nature would generate considerable HGV and other traffic during the construction phase. This would have a deleterious effect on normal local traffic, slowing it down considerably or driving it down alternative routes, thus creating traffic problems elsewhere.

"Across the Site, we are forecasting the peak number of daily HGVs over the construction programme to be 48 one-way HGV movements per day (96 HGV movements taking into account arrivals and departures) for the solar sites and a peak of 20 one-way HGV movements per day (40 HGV movements taking into account arrivals and departures) for the Cable Route Corridor." - East Pye Solar website

11.1 Impacts on Road Network

There would be far reaching impacts on the local road system around LP3. Mainly through the construction phase where heavy lorries carrying everything needed to construct an array of hundreds of 4.5 metre high, tracking solar panels would traverse local roads many times a day over weeks or months. Impacts would also include transporting and siting of facilities for the workers and parking for the workers.

For LP3 the traffic would all travel, down the Alburgh Road, through Hempnall Green down to the access point on the right before Spring Wood. EPS states that no EIL traffic would be allowed down Alburgh Road but that HGV traffic would be allowed.



Alburgh Road Access

The physical impact on the local community would come mostly during the construction process, when the panels and transformers etc would be transported to the site. According to the map provided by East Pye Solar, this would be down the Alburgh Road, a road that is mostly just wide enough for a car to pass an HGV if one or the other hugs the side of the road. There is an access point on their map from this road into the smaller of the two fields that comprise LP3. From there, who knows what they are considering? The volume of traffic during this period would be considerable, disrupting normal life for both Hempnall Green and Lundy Green. Dog walkers, cyclists and horse riders use the Alburgh Road. It is also a bus route to and from Norwich and also to Harleston.

EPS also state that No HGV traffic will be permitted down Lundy Green Road, a narrow single track lane through the village of Lundy Green.

11.2 Proposed Road Straightening and Widening

Any plans for straightening or widening the road would have to have been consulted on with the Highways authority and local councils. Previous plans for widening Lundy Green Road were removed from the scheme as Lundy Green Road is not a permitted route for HGVs.

11.3 Impacts on Existing Traffic

The impact on local traffic down Alburgh Road (a small two way residential road) would be considerable. Access to Lundy Green would be complicated by traffic having to move to the sides of the road to let HGVs pass at all times of day. Access to Silver Green and Road Green would be similarly affected. The large strawberry growing concern, Berry Farm, situated over Spring Lane to the north of Spring Wood has lorry traffic to and from its site. Much of it along the Alburgh Road. The flow of goods in and out would be affected by LP3 traffic.

11.3 Impacts on Public Rights of Way

Footpaths potentially affected by construction traffic, as they join the Alburgh Road to the north, do not lie in the area defined by LP3, but would be adversely affected by construction traffic.

11.4 Impacts on Pedestrians and Children

The Alburgh Road as it runs through Hempnall Green, though not directly part of the LP3 site, will have to take the impact of all the construction traffic that will pass through it. Many dog walkers and pedestrians use the road and its verges at all times of day. This could become potentially hazardous with the amount of HGVs and cars often having to use the verges and driveways to let each other pass.

Horse riders use The Alburgh road through Hempnall Green very often. Horses would be terrified by HGVs passing them. Horse riders would likely try to find other places to exercise their horses, if they can, but this would be difficult for local people with horses.

Schoolchildren wait for the bus at the AlburghRoad/Silver Green crossroads on weekday mornings, some having to cross the Alburgh Road to get there. They make the return journey in the late afternoon. Heavy lorry traffic would make this hazardous.

11.5 Impacts on Cyclists

Cycling is popular on the roads and lanes around Lundy Green and the surrounding villages. The Alburgh Road is much used by cycle racing clubs and other cyclists. They are

in danger from irresponsible driving at the best of times, but with heavy construction traffic they will be even more vulnerable.

11.6 Parking for East Pye Solar Workers

Parking for EPS workers should be planned for and the relevant authorities and land owners consulted, including residents of nearby properties. The extra traffic from the workers will affect Cyclists and horse riders, as well as people walking. There are no footpaths, so families with small children and pushchairs and people with disabilities will be severely affected.

11.7 Local Bus Transport

A popular local bus uses Alburgh Road as part of its route between Harleston and Norwich, a few times a day. This route will be badly affected by such a large vehicle as a bus having to negotiate heavy traffic and increased traffic, on part of its route.

Schoolchildren and elderly people use this bus to get to school or to Norwich to go shopping, some having to cross the Alburgh Road to access the bus stop. Heavy HGV traffic would make this hazardous,especially for the young and for the less able.

11.8 Potential Impact on Rail Mainline

11.9 Impact on local Airfields

Chapter 12: Noise and Vibration

Introduction

Construction of a large array of solar panels would be noisy and disruptive. Shattering local peace and quiet and straining mental well being. Some residents run Air B&B businesses. Constant noise would completely ruin the premise of their business - a stay in the peace and quiet of the countryside. LP3 and the surrounding area is undisturbed by constant road noise and commercial airline traffic, especially overnight. Commercial flights are few and far between and are very high. Noise from farm traffic and tractors working the fields is sporadic and entirely acceptable in this context. Such a low level of noise is a rarer and rarer thing these days and should be preserved.

It will adversely affect the value of houses in the whole area, and make it probable that houses will be difficult to sell, during and after construction.

Impacts of Noise and Vibration on Residents' homes and businesses

During Construction

Driving metal piles into the ground to support 4.5 metre solar panels will be noisy to say the least, as will constructing concrete bases for the panel's support frames. This noise would go on all day (between 8 and 6 allegedly) for weeks if not months. The vibration caused by the pile driving could affect older buildings, especially those constructed using clunch or clay lump. The area around LP3 is particularly quiet and peaceful so even if houses are not directly abutting the site the noise will carry a considerable distance.

Any wildlife in the area will be disturbed and adversely affected.

The vibration will cause the ground to be unnaturally compacted, affecting flora and fauna. (Ref https://www.newcastle.edu.au/)

Pile driving causes significant, complex changes in clay soil, acting as a form of "compaction" or densification in the surrounding area. Driving displacement piles into clay increases the horizontal stress and density of the soil around the pile shaft and under the tip, often leading to increased soil strength over time.

Key Effects of Pile Driving in Clay:

- Compaction Zones: Driven piles create a zone of altered soil density extending roughly 6–7 pile diameters for single piles and 10–11 for group piles.
- Initial Strength Loss: In sensitive clays, the immediate impact causes large shear deformations, remolding the soil and significantly reducing its strength in the short term.
- Pore Pressure Buildup: Pile driving generates high excess porewater pressure, which causes the soil to temporarily lose strength.
- Long-Term "Set-Up": As the pore pressure dissipates (over weeks/months), the clay consolidates around the pile, often resulting in a final soil strength higher than the original undisturbed soil.
- Surface Heave: In soft to medium clays, pile driving can cause the ground surface to heave (rise) due to the lateral displacement of soil.

During Operation

The solar panels are tracking panels, moving to track the sun as it moves across the sky. The motors that power this movement will inevitably make noise, which may be audible from a distance. This noise would be constant as the sun is never still.

The large inverters used, make a noise, (from cooling fans, magnetic components in transformers, and electrical switching components working to convert high volumes of DC to AC electricity) They will primarily emit a low-frequency, 120 Hz humming or buzzing sound during daylight hours. This would be around 60 dB (the sound of a normal conversation) at close range. It will affect wildlife and people using the countryside for recreation.

During Decommissioning

Whenever decommissioning happens it will be noisy and disruptive, just as much as during construction.

Adverse mental and physical health

During Construction

Anyone living within earshot of the construction of this solar scheme will have no escape from the noise. They will have no escape from the knowledge that this disruption to their daily life is caused by a bigger disruption, an unwanted, unwelcome intrusion into their world. Each blow of the pile driver emphasising how powerless they feel in the face of what seems to be an evident wrong. How they weren't listened to and are rendered irrelevant in the face of a faceless organisation determined to, as the local community see it, spoil their beloved countryside despite their objections. And all in order to make money for large foreign bankers who are happy to use their wealth and power to try to influence government decisions. There is strong evidence that Island Green Power has been lobbying the government to this end.

I know people who are now on anti-depressants due to their despair at what is potentially being permitted.

During Operation

The presence of the completed Solar 'farm' doesn't dispel such despair and anger. It just reminds people of what has been lost. Mental well being is unlikely to be recovered in this situation, especially if constant noise from the panels and inverters is the daily reality

During Decommissioning

Many of the affected people will be dead by the time decommissioning comes round. Decommissioning will be just as disruptive as construction. The cause of worry would be the state of the land, which would be unlikely to be farmed again as it would be contaminated and compressed etc, leaving it open to being used for other purposes equally out of character with its rural setting. A depressing thought becoming a depressing reality.

The effect of noise and vibration on Wildlife

During Construction

Barbastelle Bats

Where a proposed NSIP is located wholly within overlapping Core Sustenance Zones for barbastelle bats and directly adjacent to multiple ancient woodlands supporting maternity colonies, the impacts of construction disturbance, habitat fragmentation, lighting, noise

and long-term landscape disruption are **intrinsic to the scheme** and **cannot be reduced to a level that avoids adverse effects on the local barbastelle population's favourable conservation status**.

Birds

Surveys should have been carried out to determine the presence or otherwise of breeding populations of red and amber listed birds.

The noise and vibration during construction, operation and decommissioning would negatively affect their ability to breed successfully and would drive many species away.

Impact of Vibration on Timber-framed and Clay-lump buildings

Impact of Vibration on other Vulnerable Structures

Chapter 13: Air Quality

https://www.phlorum.com/

Air quality on countryside construction sites is heavily impacted by particulate matter (PM10, and PM2.5) dust, and Nitrogen Dioxide (NO_2) from heavy machinery, excavation, and material transport. Rural sites often face specific challenges related to dust management and the potential for pollution to settle in low-lying areas or affect sensitive, undeveloped ecosystems.

Key Air Quality Issues in Rural Construction

- Fugitive Dust: The primary pollutant is dust from soil-stripping, earthworks, and vehicles moving over temporary roads.
- Trackout: Mud and dust tracked from unpaved site exits onto public roads can cause air pollution far from the actual site.
- Plant & Machinery Emissions: Non-Road Mobile Machinery (NRMM) running on diesel produces significant NO_2 and fine particulate matter, which can be high in rural areas that are otherwise clean.
- Impact on Ecology: Dust can settle on surrounding vegetation, reducing photosynthesis and harming local ecosystems, a risk more prevalent in rural settings.
- Topographical Trapping: While open, some rural locations (e.g., valleys and woodland) can experience trapped pollutants.

Chapter 14: Socio-Economics

14.1 Impact to tourism

During construction it is less likely that people will want to visit the area with all the major disruption. The same is true after construction as the countryside will be industrialised and not what people visit the area for.

14.2 Impact to home values

The impact on home values would be immense. Until a decision is made for or against East Pye Solar's plan, homes in the area of LP3 are to all intents and purposes, unsaleable. Estate agents advise that to find a potential buyer as things stand at present (Feb 2026), prices would have to come down around 15% at least. As long as the uncertainty over the government's planning decision continues, little to no activity in the local housing market will take place. At present (feb 2026) the housing market in this area is static.

Even if the scheme is approved, and until it is completed, estate agents say that the same advice stands.

Once actually constructed, prices could rise somewhat, as potential buyers would be aware of the solar farm and could make a decision based on that solid fact. It could still be a loss of around 10% compared to the price before the solar scheme was hatched. .

That is a considerable amount of money. There is no available compensation available for home owners, we are supposed to just shut up and take it.

Talk of buying or selling houses is moot if the market is flat. The other aspect to a home's value is its value to its owners/residents. Their freedom to relocate is hugely diminished if they can't sell their homes until such time as the solar scheme is completed. This could take several years, during which time they are essentially trapped in their homes. They could be in declining health and wishing to relocate to a more manageable property, or a family could be expanding and wishing to move to a bigger property. Whatever the reason might be to relocate, it will be virtually impossible until decisions are made concerning the solar farm on LP3.

14.3 Cumulative Impact of all proposed development

The other valuable commodity the area around LP3 has to offer is peace and quiet. It is undisturbed by constant road noise and commercial airline traffic, especially overnight. Commercial flights are few and far between and are very high. Noise from farm traffic and

tractors working the fields is sporadic and entirely acceptable in this context. Such a low level of noise is a rarer and rarer thing these days and should be preserved.

Impact on Local Community

The impact of LP3 on the local community will be both physical and mental, and is not just the obvious impact the disruption caused by the construction and operation of the Solar Array and its substation would bring, but by the anxiety and often despair caused by the continuing uncertainty about the future of this scheme and consequently the future of a much loved environment and landscape.

Mental impact This uncertainty begins the moment such a scheme is proposed, (exacerbated in the case of LP3, by the insensitive way in which this was done), continues through the long drawn out planning and approval process (can be years) and if approval is gained despite impassioned protests, the uncertainty turns into anxiety (if it hasn't already done so) which could easily turn to despair and depression as the construction and destruction process begins. (which could also take years)

Those wishing to escape the effects of the solar scheme by relocating will find themselves trapped in their homes (possibly for years) by a static housing market, caused by the uncertainty about the solar scheme's future or lack of same. This would be very bad for their mental health and could cause severe anxiety and depression.

An undisturbed view over a natural or agricultural landscape and a walk in the same has been proved to contribute very positively to people's mental health and consequently their happiness. Take that away, or even put the possibility of access to such an experience in doubt and anxiety and stress are likely to increase leading to a decline in mental health and well being.

Chapter 15: Soils and Agriculture

Introduction

“Ignoring the impact of solar installations on soil quality can have serious long-term consequences. Soil degradation can lead to reduced agricultural productivity, increased erosion and sedimentation, loss of biodiversity, and impaired ecosystem services. Addressing these challenges requires a holistic approach that integrates environmental considerations into all stages of solar energy development.

To elucidate the academic sense of solar land pollution, we must recognize its departure from conventional pollution paradigms. It is not solely defined by the presence of pollutants, but by the systemic alterations to ecological processes and land system functions. The significance here is profound: it shifts the focus from point-source contamination to landscape-scale ecological disruption.”

15.1 Impact of Solar infrastructure on Soil Quality

Over time, solar installations can lead to several changes in soil properties. Shading from the panels can alter soil temperature and moisture levels, affecting the microbial communities that are essential for nutrient cycling. The reduced sunlight can also inhibit the growth of plants beneath the panels, leading to changes in soil organic matter content.

The presence of solar panels can alter the soil’s chemical composition. Reduced rainfall reaching the soil beneath the panels can decrease leaching of nutrients, potentially leading to an accumulation of salts and other minerals. Conversely, in areas with high rainfall, increased runoff from the panels can lead to increased erosion and nutrient loss in surrounding areas.

Soil microbial communities are vital for maintaining soil health. They play a critical role in nutrient cycling, decomposition of organic matter, and disease suppression. Changes in soil temperature, moisture, and sunlight can significantly affect these communities.

Studies have shown that shading from solar panels can reduce the diversity and activity of soil microbes, which can have cascading effects on plant growth and soil health.

15.2 Soils and Compaction

The immediate impact of solar installation on soil can be quite disruptive. The removal of vegetation leaves the soil exposed, increasing the risk of erosion by wind and water. Heavy machinery compacts the soil, reducing its porosity and ability to absorb water.

This compaction can also hinder root growth and reduce the availability of nutrients for plants.

15.3 Soils and Contamination

WW2 - possible soil contamination etc

Much of the area covered by the woodland to the east (and part of LP3) was very different in World War II. It was an American bomber base and remnants of the buildings and shelters still exist amongst the trees. There is concern about the possibility of unexploded ordnance under the north east part of LP3 where it adjoins the wood, as that was where the bomb store was said to be located. There is also concern about any contamination still held in the soil leaching out into the water supply and general environment if the soil is disturbed.

While generally cleaner than fossil fuel infrastructure, solar farms can still contribute to chemical pollution. This includes runoff from panel cleaning agents and potential leaching from damaged panels (especially older technologies).

Chemical Contamination (Leaching)

- **High pH and Alkalinity:** Fresh concrete and grout are extremely alkaline (high pH). Rainwater or groundwater passing through or over new concrete structures can dissolve cement components, leading to "leachate" that increases the alkalinity of nearby groundwater.
- **Heavy Metal Contamination:** Concrete leachate can contain heavy metals and harmful elements that contaminate water sources, including chromium (particularly Hexavalent Chromium VI), arsenic, barium, lead, zinc, and nickel.

- **Sulphate and Mineral Release:** The leaching process can increase sulphate, calcium, and mineral content, which may make the water taste metallic, appear cloudy (turbid), or exceed safety standards for human consumption.
- **Interaction with Disinfectants:** If water containing disinfectants (like chlorine) comes into contact with new cement surfaces, the leaching of pollutants—including aluminum and chromium—can increase significantly.

15.4 Impact of Microcracking, Leaching, Glass

Micro cracks in solar cells are a frequent and complicated challenge for manufacturers of solar photovoltaic (PV) modules. While it is difficult to assess in detail their impact on the overall efficiency and longevity of a solar panel, they are one of the main sources of malfunctioning or even inactive cells. However, micro cracks are nearly impossible to avoid and – in the long run –will affect most solar panels, including high-quality panels. They are triggered by mechanical and chemical environmental factors causing stress to the panel operating in the field, such as hail, snow, sun, wind, and severe coldness. Further stress factors are geared to the thermal cycles of the cells involving contracting, expanding, and flexing metal contacts, solder, and wire interconnect.

15.5 Lack of Land Management Detail

Careful management is essential to minimize chemical risks. EPS should outline how they intend to carry out this management and maintenance.

15.6 Soil Recovery Plan

EPS should have a detailed soil recovery plan for when the Solar Farm is decommissioned and taken down

15.7 Lack of Decommissioning Bond

Chapter 16: Ground Conditions

Chapter 17: Electromagnetic Fields

The potential impacts of electromagnetic fields on the area and its surroundings needs to be researched and any necessary action taken in the light of the conclusions of such research. It potentially can affect living beings and can affect safety and navigation equipment on nearby airfields.

Impacts of EMF Radiation on:

17.1 Residents

17.2 Children

17.3 Bats

17.4 White-Clawed Crayfish

17.5 Airfields

Poorly wired cable looms are a prime source of interference. Certified inverters can, despite their certification, still generate interference at various frequencies. The frequency range that is most susceptible to interference is 100 to 200 MHz which may affect aeronautical radio frequencies dependent on the location of the development. Aerodrome operators should assure themselves that there is no risk of electromagnetic interference affecting any part of their ATS infrastructure (if applicable).
(Renewable energy developments: solar photovoltaic developments CAST Aerodrome Safeguarding Guidance Note)

Chapter 18: Other Environmental Matters

18.1 Utilities

High pressure gas main

Glass Fibre Broadband

Gas pipes

Water and sewage pipes

18.2 Major Accidents and Disasters

18.3 Glint and Glare

Airfields

A key safety concern when considering a solar photovoltaic panel development on- or off-aerodrome is related to the reflection of sunlight off the photovoltaic panels commonly referred to as glint and glare.
'Glint and glare' is the general term used to describe the reflection of sunlight from a reflective surface, typically one that is capable of producing specular solar reflections.
The definition of glint and glare is as follows:
• Glint – a momentary flash of bright light typically received by moving receptors or from moving reflectors.
• Glare – a continuous source of bright light typically received by static receptors or from large reflective surfaces.
Typical surfaces that are considered with respect to glint and glare are glass, metallic structures e.g. roofs, and solar PV panels. The orientation of a solar panel (azimuth and elevation angle) as well as its height will determine whether glint and glare effects are possible towards the assessed receptors.
The receptors that should be considered are usually ATS personnel in a control tower and pilots of aircraft within a suitable distance of an aerodrome. It is essential to conduct a glint and glare assessment when a reflective surface is to be located on or immediately adjacent to an aerodrome. In most cases, an assessment should be undertaken for a solar PV development which is being proposed within a specific distance (indicated by the aerodrome authority) from an aerodrome. For many

aerodromes, 5km is the distance of choice but it could be considered out to 10km. In exceptional circumstances, assessments may be required beyond 10km.

(Renewable energy developments: solar photovoltaic developments CAST Aerodrome Safeguarding Guidance Note)

The aerodrome operator in conjunction with any ATS personnel should, as part of the change management process in their safety management system, consider all the potential hazards posed by solar photovoltaic developments / BESS on or in the vicinity to their aerodrome and within the aerodrome's physical and technical safeguarded areas, in order to ensure the safety of the overall operation. The developer should provide the aerodrome with a safety survey which should include:

- a glint and glare survey when a development is within a distance specified by the aerodrome from an Aerodrome Reference Point (ARP) (5km in most cases)
- impacts to CNS facilities (if applicable) up to a distance specified by the aerodrome (typically 6km) from the ARP
- a wildlife hazard safety survey.

In addition to the safety survey, developers should provide the aerodrome operator and / or ATS provider with adequate technical and safety assurance documentation which addresses the safety impacts provided in sections 3.1 to 3.6. Further consideration may be given to the following:

- turbulence
- thermal plume
- 1000m off aerodrome RFFS response areas
- access routes for fire and rescue vehicles
- passenger evacuation
- damage to aircraft slides impeding passenger self-evacuation
- electrical hazards
- interference with CNS equipment and meteorological equipment
- HV cable routes which may interfere with compass swing bases or other sensitive items
- any lighting employed on the development (confusing lights)
- frangibility of structures where required
- site fire risk and prevention measures

(Renewable energy developments: solar photovoltaic developments CAST Aerodrome Safeguarding Guidance Note)

Roads

Homes

Chapter 19: Cumulative and In-Combination Effects

Cumulative impact of this land parcel with cable corridors

19.1 Other near-by developments (solar, housing, energy infrastructure)

19.2 Cumulative impact on landscape and visual



A view looking south from Lundy Green Road at the eastern part of the village to the site of the EPS solar array which would be situated just past the hedge and the line of trees on the other side of this field. The proposed cable route joining LP3 to the next land parcel would cross this field towards the viewer and then cross the Lundy Green Road (at roughly this point, though no actual detailed route has been proposed). From then it would continue north towards Hempnall across the large field you see, (looking north from Lundy Green Road, opposite the viewpoint of the previous shot) and across the next field to the north, almost as far as Hempnall.



The construction of this cable route, (however that is achieved with no HGV access allowed on the only viable access roads) would just add more noise and disruption to the local community. Spreading the disruption to those living on or near the cable route who might have avoided some of the nuisance caused by the construction of the Solar Array on LP3, and on other land parcels in the overall scheme.

The construction of the cable corridor.

There will need to be a "Haul Road' built to carry the lorries containing the materials necessary for the construction of the cable corridor, as the small rural roads which might have been considered as points of access have been ruled out. This haul road would be a major construction, following the route of the cable corridor. Obviously this would be another major disruption to the area, its land and the properties near it, bringing noise, traffic disruption at road crossing points and disturbance to wildlife etc.

19.3 Cumulative impact on ecology

The construction of the parts of the cable corridor that cross LP3 would add to the negative effect the solar array construction would already have had on the local environment and

ecology. Hedges would be removed at certain locations, trees may need to be felled. Water courses and drainage ditches contaminated or altered.

Though the cable route would be underground and covered over eventually, the construction would disrupt a much wider area than the few metres the actual cable would take up. Heavy machinery would be needed to dig the trenches etc, the soil surface would be churned up and/or compressed, and fencing would likely be needed to preserve the site's integrity and safety for the public during construction.

This would disrupt wildlife in areas that had so far avoided the disruption caused by the solar array's construction. So a double blow for the local ecology.

19.3 Cumulative impact on heritage

19.4 Cumulative impact on Transport and Traffic

I think this quote says it all.

"Across the Site, we are forecasting the peak number of daily HGVs over the construction programme to be 48 one-way HGV movements per day (96 HGV movements taking into account arrivals and departures) for the solar sites and a peak of 20 one-way HGV movements per day (40 HGV movements taking into account arrivals and departures) for the Cable Route Corridor."

(from the east Pye Solar website)

It is hard to say what percentage of those HGV movements would be for LP3, but as each site would be made one by one as opposed to all at once, it would still be a considerable amount of new traffic on local roads.

Getting cable drums to the required localities is another problem as some cable transport lorries are larger than HGV and would be very restricted in where they could physically go. Any attempts at road widening to facilitate access etc would be hugely disruptive. And as mentioned before, HGV access for East Pye construction traffic is not permitted on any road smaller than a B road so getting the relevant equipment to the desired location on existing roads looks like an insurmountable problem.

19.5 Cumulative impact of Noise and Vibrations

The construction of the parts of the cable corridor that cross LP3 would add to the negative effect the noise and vibration caused by solar array construction would already have had on the local environment and ecology. Taking the disruption along the cable route with it to hitherto unaffected members of the community.

19.6 Cumulative impact on air quality

19.7 Cumulative socio-economic impact

19.8 Cumulative impact to soils and agriculture

Though the cable route would be underground and covered over eventually, the construction would disrupt a much wider area than the few metres the actual cable would take up. Heavy machinery would be needed to dig the trenches etc, the soil surface would be churned up and/or compacted, which would make it hard to bring the land back to its previous standing as high quality farmland. It is debatable whether the land can be ploughed/farmed conventionally after the cables have been buried and infilled. If this was not possible it would create uncultivated areas stretching across entire fields. LP3 has a couple of fields that would be affected.

19.9 Cumulative impact to ground conditions

19.20 Cumulative impact of EMF

19.21 Cumulative impact to utilities

19.22 Cumulative impact of major accidents and disasters

19.23 Cumultive impact of glint and glare

Conclusion

My conclusion is that this project, specifically as it pertains to site 3 is flawed in many ways and should not be approved. My objections are as follows -

1. **Disruption and loss of habitat**. - Barbastelle Bats, Great Crested Newts and White Clawed Crayfish. Red and Amber listed bird species.
2. **Contamination of water supply** due to soil disturbance. Many houses having their own groundwater supply. Contaminants would also find their way into the River Tas via smaller watercourses and ditches with the negative effect that would bring to a fragile habitat.
3. **Possible presence of unexploded ordnance** as part of site 3 was a WW2 Airfield bomb dump.
4. **Ancient woodland** wildlife and habitat at risk of disturbance due to proximity of solar panels, particularly affecting Barbastelle bats who feed and forage over site 3 and more generally over the entire area of the scheme.
5. **Disruption to road traffic and danger to pedestrians, (including school age and elderly bus passengers), and to cyclists and horses** during the construction process due to HGV deliveries to site and due to a general rise in traffic due to workers arriving and leaving etc.
6. **Noise and vibration during construction**. Pile driving can cause noise nuisance and vibration that could negatively impact nearby properties.
7. **Drastic change of land use** from historically agricultural to modern industrial should be unacceptable.
8. **Soil degradation** due to compaction, contamination and degradation due to lack of continuous cultivation.
9. **Loss and degradation of footpaths** due to fencing in and close proximity to large scale solar infrastructure rendering them almost entirely joyless places to exercise dogs and attempt a country walk.
10. **Degradation of amenity value** due to rural views across open countryside being replaced by views over a hard-edged, unforgiving industrial landscape.
11. **Negative impact on mental health is a major issue**. The government allowing and encouraging outside agencies to despoil the countryside for profit and sidestepping valid protest in the name of ‘national security’ leading to feelings of anger, helplessness and despair, and to anxiety about the future.

12. **Negative impact on property prices** by as much as 15%, as a desirable rural area becomes far less desirable as it is turned from rural to industrial. No compensation is offered, we are supposed to just take it.
13. **Properties in the area becoming unsaleable** as buyers, sellers and estate agents wait for prices to stabilise. For this to happen, they need to see if the scheme is approved, and if it is approved, wait until the scheme is completed, which could take around three years.
14. **Homeowners who wish or need to relocate or upsize/downsize** in this time period are essentially trapped in their own homes until the scheme is completed and the market settles.
15. **Airfields have concerns** over glint and glare and availability of emergency landing areas potentially lost to solar panel arrays.
16. **The Mock-up photographs in the submission document for site 3** do not show the view from the west over the smaller of the two fields towards the Alburgh Road. This is the view from the curtilage of Grove Farmhouse, and nearer the field, the view from the north/south footpath to/from the corner of Spring Wood. It is unclear if there is a mitigation strip between the solar panels and fencing and the hedge and ditch alongside the footpath. There should be at least 15 metres of clear land between the fencing and the footpath.

My personal objection -

Alongside the concerns expressed above, there are concerns about the underlying reasons for this scheme. The reasons put forward by the government and the Secretary of State are open to question to say the least. Saving the planet by supplying renewable energy is the ostensible aim but set against this is the fact that a major multinational Investment company, Macquarie is behind the companies building this solar scheme. They would certainly not be involved unless big profits were going to be made. So our good quality agricultural land is being taken out of food production to make room for solar factories (not farms) that financially benefit multinational investment companies, not the people of the UK. This is all at the expense of our precious farmland, countryside and rural way of life. Not to mention our food security, which should be a concern.

Landowners are also being generously compensated for giving up their land. To the tune of (allegedly) £1000 an acre per annum for the duration of the scheme which could be around 60 years. They are selling out their neighbours for financial gain. What they seem not to realise is that the land they are leasing is likely (allegedly) to be the subject of compulsory

purchase, that being a cheaper option for the investors and would result in them owning the land in perpetuity. Large areas of UK farmland being owned by the worst kind of absentee landlord with profit as their only motive is an uncomfortable thought.

The other unjust and unfair aspect to this scheme and others like it is their definition as Nationally Significant Infrastructure Projects (NSIPs) which defines them as matters of national security rather than local planning issues. This conveniently bypasses local planning and lets decisions to allow or turn down applications that qualify rest with the Secretary Of State alone. This is undemocratic and open to unfair and autocratic decisions being made without recourse to appeal (unless you can afford the legal cost of a judicial review, which is not cheap and unlikely to be positive in this political climate). There are those that believe the authorities involved are under pressure from higher authorities to give the OK to these Solar Farm plans as to do otherwise embarrasses the government and would scupper the unrealistic ‘Net Zero’ plan they are desperate to enact. They in turn could (allegedly) be being ‘leaned on’ by even higher authorities such as the World Economic Forum, who are pushing net zero by 2030. So we are minor players in this drama. But we fight on.

Objections submitted in response to East Pye Solar

PINS Reference: EN0110014

Land Parcel 6

Submitted by BEPS (Block East Pye Solar [redacted]

Executive Summary

Land Parcel 6 is **undeliverable in principle**. The Applicant relies on this parcel simultaneously as a **construction compound** (with heavy plant, storage, traffic and disturbance) and as **ecological and landscape mitigation land**. These roles are **mutually incompatible** and expose a fundamental internal contradiction within the scheme.

In addition, Land Parcel 6 is subject to **severe residential proximity impacts**, high **heritage sensitivity**, proximity to **SSSIs and priority woodland**, location within **high water-quality protection zones**, and the loss of productive agricultural land. These constraints are **front-loaded and non-mitigable**.

It is not clear how site 6 will be developed as a construction compound – for example, whether it will be tarmaced for vehicle access, whether buildings will be constructed on it or storage compounds. It is unclear how contamination, compaction and other changes to this site caused by its use as a construction compound will be remedied in order to convert it into a biodiversity mitigation area.

The impact on the surrounding Grade II* and Grade II Listed Buildings of this development of the land as a construction compound should also be assessed. If diesel generators are used or other potential fire hazards, this could have a serious impact on the timber-framed and thatched listed buildings which surround this site. No risk assessment has been carried out. Equally the vibration caused by HGVs in close proximity to these fragile buildings without modern foundations, and changes to water infiltration on the field caused by making it capable of carrying traffic, may also have a detrimental affect on the surrounding listed buildings. This has not been assessed.

It is also unclear whether site 6 will be reused as a construction compound again during the lifetime of the project for replacement of solar panels. This would destroy any BNG benefit. It would again have an impact on the surrounding Listed Buildings.

It is again unclear whether it would be reused as a construction compound for decommissioning, and again the impact on BNG and the habitats in theory created. Again another impact on the Listed Buildings and wider ecology of the area including bats.

If decommissioning is undertaken by individual farmers, as the applicant suggests, it is unclear how the function of sites which were once compounds for construction but which

are owned by farmers not requiring to decommission their land, would be replaced by other farmers involved in the scheme. Would other land used either for mitigation or outside the order limits then have to be industrialised for this purpose.

1. Internal scheme contradiction: construction compound vs mitigation land

The Applicant proposes to use Land Parcel 6:

- as a **construction compound**, accommodating heavy machinery, materials storage, vehicle movements, noise, lighting and prolonged disturbance; and
- as **mitigation land**, intended to offset ecological and landscape harm arising elsewhere in the scheme.

These two functions are **inherently incompatible**. Land subject to:

- repeated compaction,
- disturbance,
- lighting,
- vehicle movements,
- and potential contamination

cannot lawfully or credibly function as mitigation, particularly for sensitive receptors such as nearby woodland, protected species, water quality and residential amenity.

This contradiction demonstrates that:

- mitigation is **illusory rather than real**;
- mitigation claims are not deliverable in practice;
- the scheme fails to demonstrate internal coherence.

This flaw alone is sufficient to render Land Parcel 6 **undeliverable**, and undermines mitigation claims across the wider scheme.

2. Proximity to residential properties – unacceptable amenity harm

Land Parcel 6 is bordered along its southern edge by approximately **20 residential properties** on Silver Green (formerly Furze Lane). Some dwellings lie **as close as 60 m** to the parcel boundary, with a farm bungalow less than **20 m** from the north-eastern edge.

As a construction compound, the site would generate:

- prolonged noise and vibration;
- HGV movements;
- lighting and security activity;
- dust and air quality impacts.

These impacts would be **unavoidable, sustained and severe**, and fundamentally incompatible with residential use at this proximity. The surrounding communities of Hempnall Green, Silver Green, Road Green and properties along the B1527 would be cumulatively affected, particularly in combination with other East Pye parcels.

Mitigation through screening or timing restrictions is **not credible** at this scale.

3. Heritage harm – setting of listed buildings

There are **three listed buildings within 100 m** of the southern boundary of Land Parcel 6:

- **Poacher's Cottage** (Grade II*, late C16 / early C17, thatched) – approx. 60 m;
- **Wodehouse Farm** (Grade II*, early C16 hall house) – approx. 80 m;
- **The Firs** (Grade II, C17 hall house) – approx. 100 m.

A further **14 listed buildings lie within 1 km**.

The construction compound and any associated permanent infrastructure would:

- introduce industrial activity into the immediate setting of highly sensitive heritage assets;
- erode historic rural character;
- cause harm to significance that **cannot be mitigated**.

The PEIR does not provide a lawful heritage impact assessment for this parcel, nor does it address the compounded harm arising from construction use.

4. Proximity to SSSIs, priority woodland and woodland networks

Land Parcel 6 lies within close proximity of:

- **Little Wood SSSI** (approx. 960 m to the NNE);
- **Shotesham–Woodton Hornbeam Woods SSSI** (approx. 1.25 km to the NE);
- priority deciduous woodland and woodland networks within **80–100 m** of the parcel boundary.

As a construction compound, the site would generate:

- noise and vibration;
- lighting disturbance;
- dust deposition;
- hydrological disruption.

These impacts present a **foreseeable pathway of harm** to SSSI integrity and priority woodland habitats. Reliance on this land for mitigation in such circumstances is **self-contradictory and unlawful in principle**.

5. Water environment and pollution risk

Land Parcel 6 lies within:

- **high-priority water-quality protection zones**;
- a **high-priority phosphate catchment**.

Evidence of water pooling along the northern edge of the parcel demonstrates poor drainage and heightened sensitivity to compaction and runoff.

Use of the site as a construction compound creates:

- increased sediment mobilisation;
- pollution risk from fuels, oils and materials;
- altered surface water pathways.

These risks directly undermine both **environmental protection objectives** and the claimed mitigation role of the site.

6. Ecology and protected species sensitivity

The parcel lies within a landscape supporting:

- red-listed plant species (e.g. *Euphorbia amygdaloides*);
- red-listed and amber-listed birds;
- invertebrate assemblages of conservation concern;
- hedgehogs and other protected fauna.

Construction-phase disturbance is incompatible with the retention or enhancement of these features. The Applicant's reliance on this parcel for mitigation is therefore **not credible**.

7. Agricultural land and irreversibility

Land Parcel 6 is actively and successfully farmed arable land, with a long and continuous cropping history.

Compaction and disturbance from construction compound use would result in **irreversible soil damage**, rendering subsequent restoration or mitigation claims unreliable.

Overall conclusion – Land Parcel 6

Land Parcel 6 fails on multiple, overlapping and reinforcing grounds:

- an internal contradiction between **construction compound use and mitigation function**;

- unacceptable proximity to residential properties;
- harm to the setting of listed buildings;
- proximity to SSSIs and priority woodland;
- high water-quality and pollution risk;
- ecological sensitivity;
- irreversible agricultural land damage.

These are **front-loaded flaws**, not matters capable of resolution through conditions or examination.

Conclusion

Land Parcel 6 is undeliverable in principle.
Its inclusion further demonstrates that the East Pye Solar scheme relies on **theoretical mitigation that cannot function in practice**, reinforcing the conclusion that the scheme as a whole is **incapable of lawful delivery**.

Objections submitted in response to East Pye Solar

PINS Reference: EN0110014

Land Parcel 7

Compiled by local residents. Submitted by BEPS (Block East Pye Solar F816760F0)

Use of Artificial Intelligence

This Written Representation has been prepared by local residents and the Parish Councils of Saxlingham Nethergate, Hempnall etc. in response to a Development Consent Order application comprising many thousands of pages of technical reports, Environmental Statement chapters, plans and consultation responses. Given the scale and complexity of the application, **OpenAI's ChatGPT** and **Adobe Acrobat AI Assistant** were used as drafting and document review tools to assist with summarising documents, improving clarity and cross-referencing information. **Any images included within this Written Representation that have been adapted from the Applicant's documents were edited manually by the authors and were not created or modified using artificial intelligence.**

All arguments, conclusions and opinions contained within this Written Representation have been reviewed and approved by the authors, who accept full responsibility for its contents.

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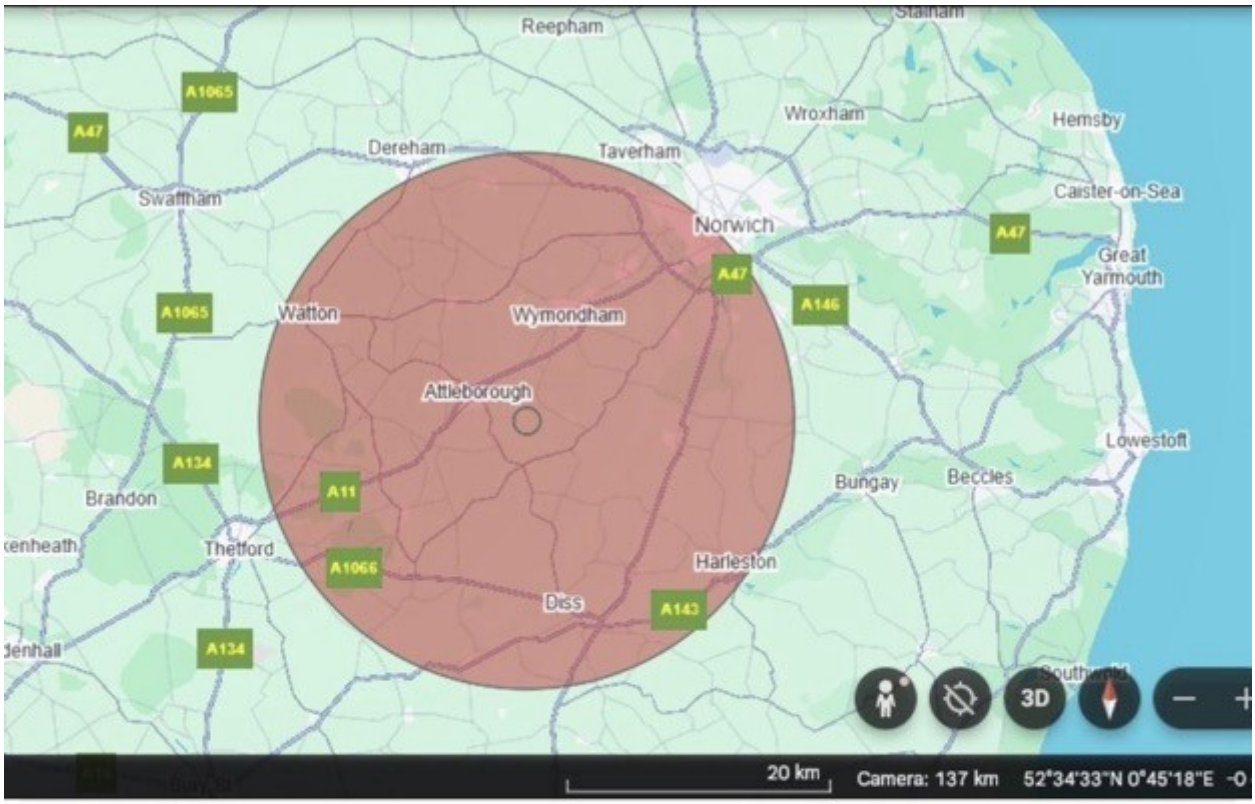
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Executive Summary

Land Parcel 7 suffers from **multiple, interacting constraints which render it potentially undeliverable in practice and in law**. These constraints arise from European Protected Species impacts (barbastelle bats), chalk-stream ecology (River Tas and white-clawed

crayfish), absence of a lawful ecological baseline (botany), and unassessed essential infrastructure (rural fibre-optic broadband).

These constraints are not capable of being resolved through detailed design, conditions or mitigation. **They go to the fundamental feasibility of constructing and operating the Scheme as proposed**.

1. Barbastelle bats – absence of a licensable delivery pathway

Land Parcel 7 lies entirely within **overlapping Core Sustenance Zones (CSZs) for barbastelle bats** and directly adjoins **ancient woodland confirmed to support maternity colonies**. The evidence demonstrates **landscape-scale functional habitat use** is not a localised effect that can be addressed through buffers, planting or construction timing.

As a result, delivery of development within this parcel would require:

- an **EPS licence**; and
- satisfaction of the statutory tests, including *no satisfactory alternative* and *maintenance of favourable conservation status*.

Given the extent of CSZ overlap, the cumulative impact of the wider Scheme, and the presence of multiple maternity colonies, **there appears no credible evidence that a licence could be granted**. The Applicant has not identified any workable alternative layout or strategy that would avoid these impacts.

A scheme component which **cannot realistically be licensed cannot be delivered**, and reliance on post-consent licensing uncertainty undermines the credibility of the Scheme as a whole.

2. River Tas and white-clawed crayfish – hydrological and construction infeasibility

Land Parcel 7 directly adjoins the **River Tas chalk stream**, within a catchment now confirmed to support **breeding populations of white-clawed crayfish**, a strictly protected species.

Delivery of the Scheme would require construction activities with clear risk pathways:

- cabling and trenching;

- potential HDD beneath or near a fissured chalk geology;
- haulage and compaction impacts;
- sediment and pollution risk to the hyporheic zone.

No downstream crayfish surveys have been included in the ES, and therefore **no lawful or credible construction methodology has been demonstrated**. Regulatory approval (including under the Habitats Regulations and the Water Framework Directive) is uncertain at best and likely unobtainable.

Where there is no viable means of crossing, working near, or protecting a chalk stream with protected species, **the land parcel cannot be built out**.

3. Absence of botanical survey – inability to design or mitigate

No botanical survey has been carried out for Land Parcel 7, despite the area's known importance for **rare and priority plant species associated with long-established grassland and roadside verges**.

This omission has direct deliverability consequences:

- the layout cannot be lawfully finalised;
- construction impacts cannot be avoided or mitigated;
- biodiversity net gain claims cannot be substantiated; and
- statutory consultees cannot sign off mitigation or compensation.

A scheme that cannot even identify what ecological assets it would destroy **cannot progress to construction in a controlled or lawful way**.

4. Rural broadband infrastructure – unresolved physical constraint

Land Parcel 7 contains **underground rural fibre-optic broadband infrastructure**, likely including community-led and commercial networks running through verges and fields.

The Applicant has:

- not mapped this infrastructure;
- not consulted operators or users; and
- not assessed diversion, protection or outage risk.

Damage or diversion would disrupt essential services to homes and businesses and could render parts of the Scheme unbuildable or delay construction indefinitely. This is a **practical delivery risk**, not a minor utility issue.

5. National Gas Transmisson – High Pressure Gas Main

The proposed haul road across land parcel 7 crosses over the high pressure gas main. The applicant has not included any evidence that this will be permitted or how it will be achieved.

6. Countryside Stewardship Scheme

Much of Site 7 is currently included in the Countryside Stewardship Scheme until 2028 for the conservation of red-list birds including lapwing, skylarks and turtle doves, as well as other conservation objectives.

This publicly-funded conservation habitat for red-list birds will be destroyed to install the East Pye Solar project. The biodiversity harm this will cause is not reflected in the applicant's biodiversity net gain calculations.

7. Listed Building Harm

The Edelston independent HIA identifies harm to Grade II* Oaks Farmhouse; Grade II Listed Buildings: Hill Farmhouse, Wood Farmhouse, Manor Cottage, Manor Farmhouse, Manor Farmhouse Barn, Hill Cottages, Hill House, Holly Cottage, the Saxlingham Green Conservation Area.

8. Cumulative effect – no credible construction scenario

Taken together, the constraints affecting Land Parcel 7 mean that:

- no licensable ecological pathway has been demonstrated;
- no lawful construction methodology has been shown for the River Tas;

- no ecologically informed layout is possible; and
- no reliable infrastructure protection strategy exists.

The Applicant has therefore failed to demonstrate that **this parcel can be constructed**, let alone operated and decommissioned in compliance with environmental and infrastructure law.

Conclusion – Scheme credibility and viability

Land Parcel 7 is not merely environmentally sensitive; it is **potentially functionally undeliverable**. Its inclusion within the Order Limits requires the Examining Authority to assume that multiple regulatory approvals, licences and mitigation solutions will somehow be secured despite the absence of evidence that this is feasible.

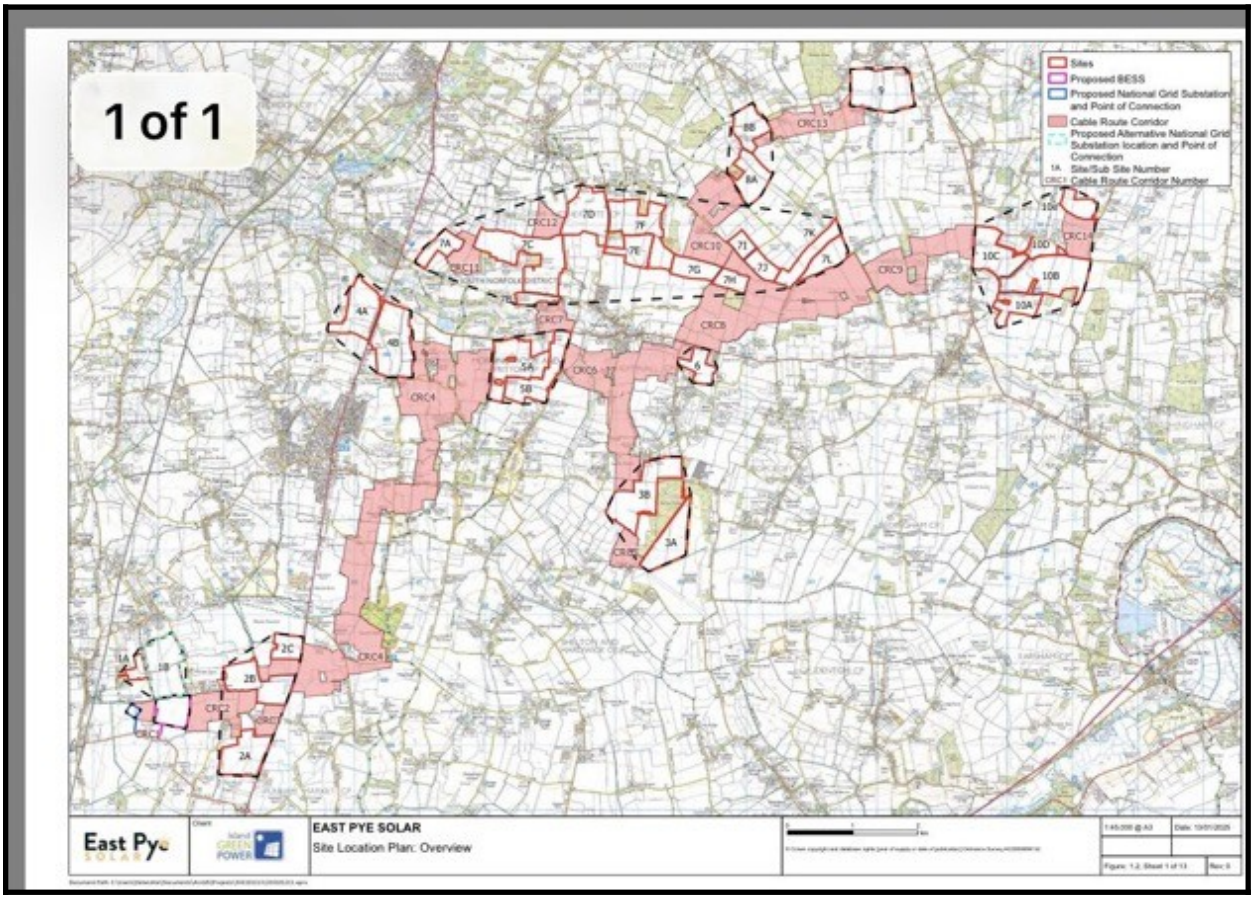
A Development Consent Order which depends on such assumptions is **not credible, not robust, and not capable of implementation**. The reliance on Land Parcel 7 therefore materially undermines the deliverability and viability of the East Pye Solar scheme as a whole.

Overall conclusion

Fails on multiple independent and compounding grounds, including:

- Direct harm to the Saxlingham Green and Saxlingham Nethergate Conservation Areas and listed buildings;
- **European Protected Species licensing failure** (barbastelle CSZ epicentre);
- **High-pressure gas infrastructure conflict**;
- European Protected Species and SSSI risk;
- Countryside Stewardship Scheme conflict
- unacceptably close to **residential area**;
- severance of multiple rural public footpaths and affecting **Boudicca Way**;
- and destruction of **publicly funded Countryside Stewardship habitats**.

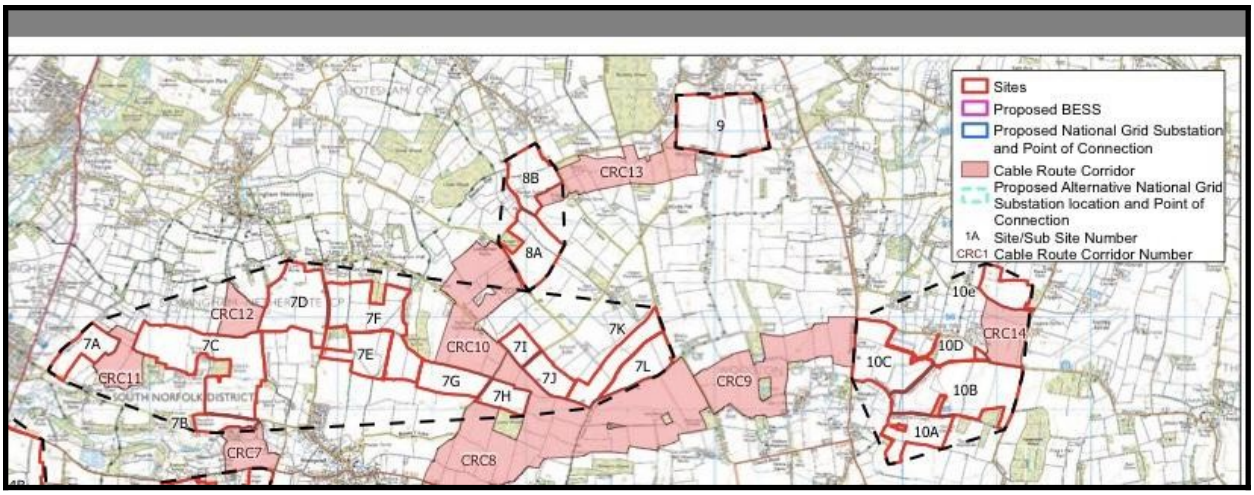
Chapter 1: Introduction



Site 7 is divided into 12 sub-plots labelled A-L and is the largest of all the sites at 328 hectares or 810 acres.

On its own, it is almost the same size as Cleve Hill Solar in Kent at 900 acres and the largest mega solar NSIP that has been built to date (2026).

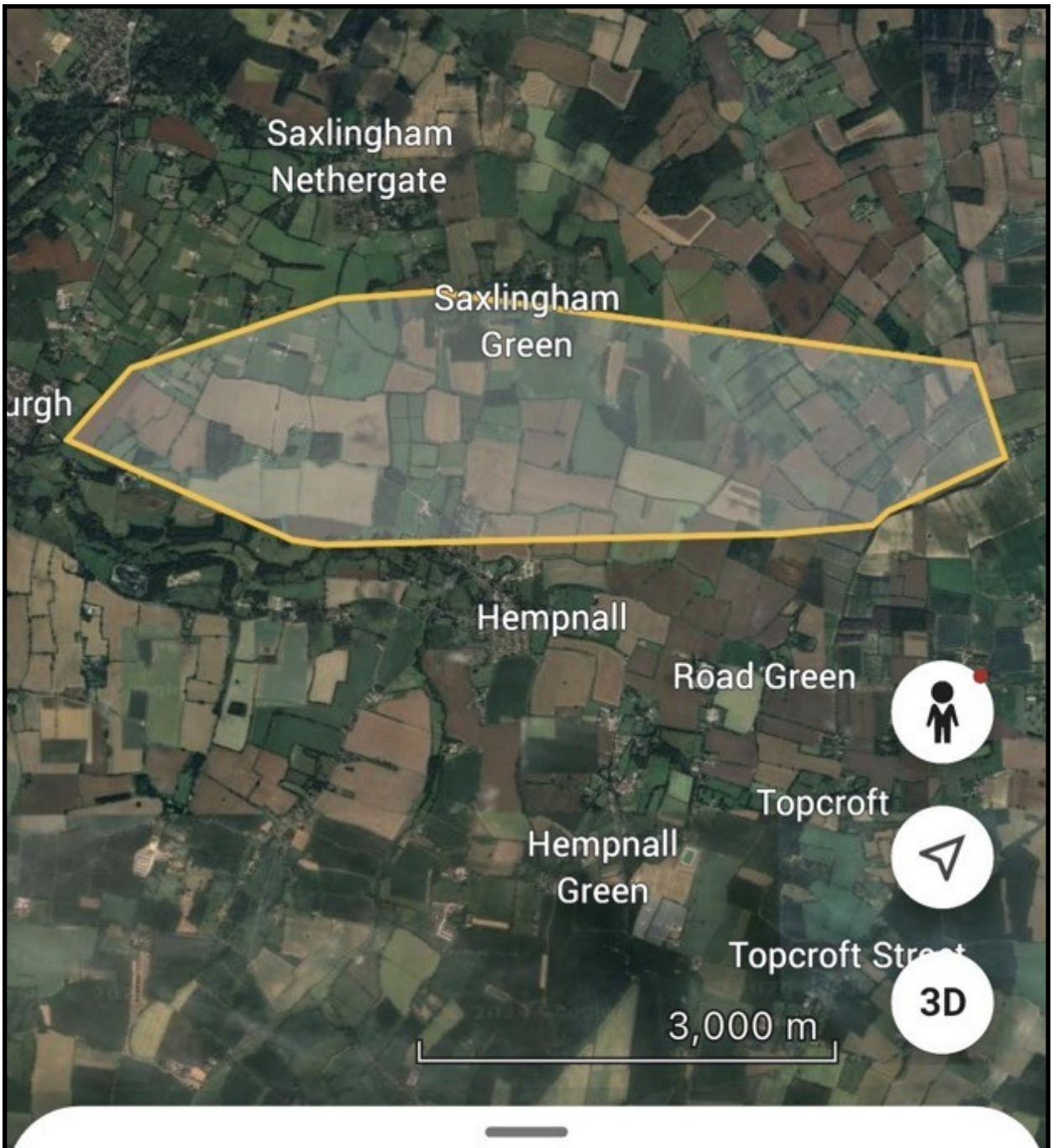
The boundary for Site 7 spans from Tasburgh in the west over to Woodton in the east, approximately 6.5km as the crow flies; and Hempnall in the south to Saxlingham Nethergate in the North, ~2km. Site 7 incorporates 5 parishes.



Site 7 Map with all Sub-plots A-L

However East Pye Solar's own **boundary perimeter of Site 7 is approximately 14.4km, with an internal area of 2140 acres.**

Although not all of this internal acreage is proposed for solar panels, access to sub-plots, haulage routes, construction traffic, noise, compounds, substations and cabling will affect the whole area contained within the Site 7 boundary line (see image below)



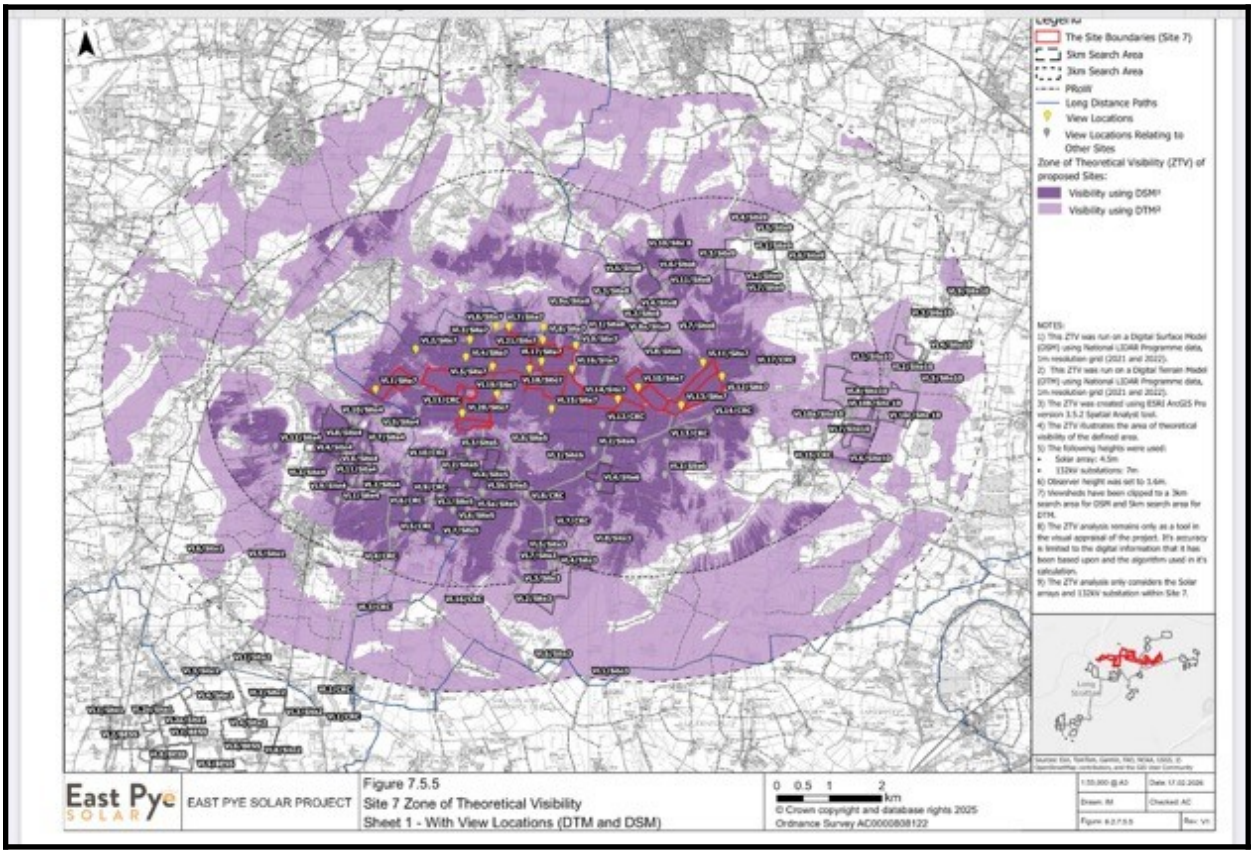
site 7

Perimeter

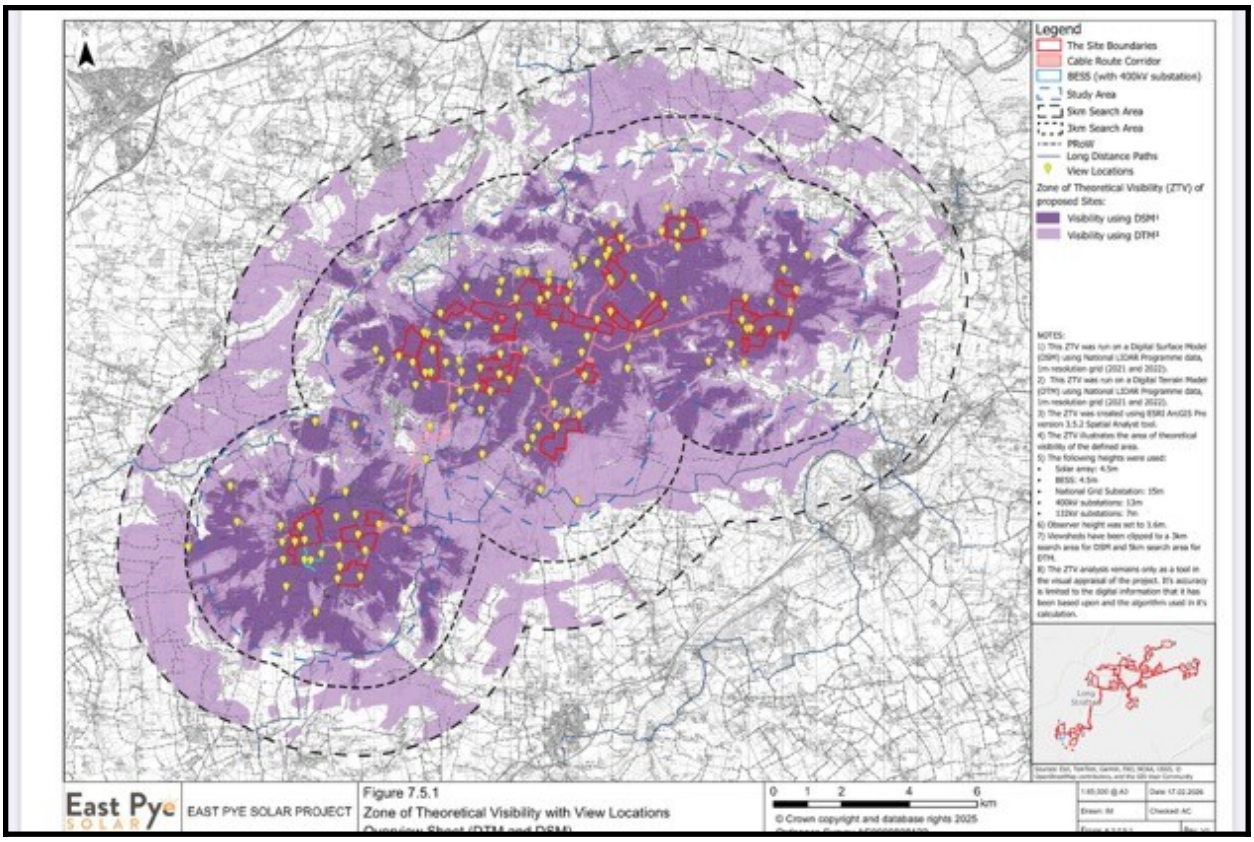
14.4 km

Perimeter of Site 7 and the vast area it covers

The devastation of the scheme will be seen across the full internal area and way beyond significantly at 3km radius and to 5km, although we know it doesn't just stop there (Zone of Visibility).



Site 7 East Pye Solar Zone of Visibility Overview

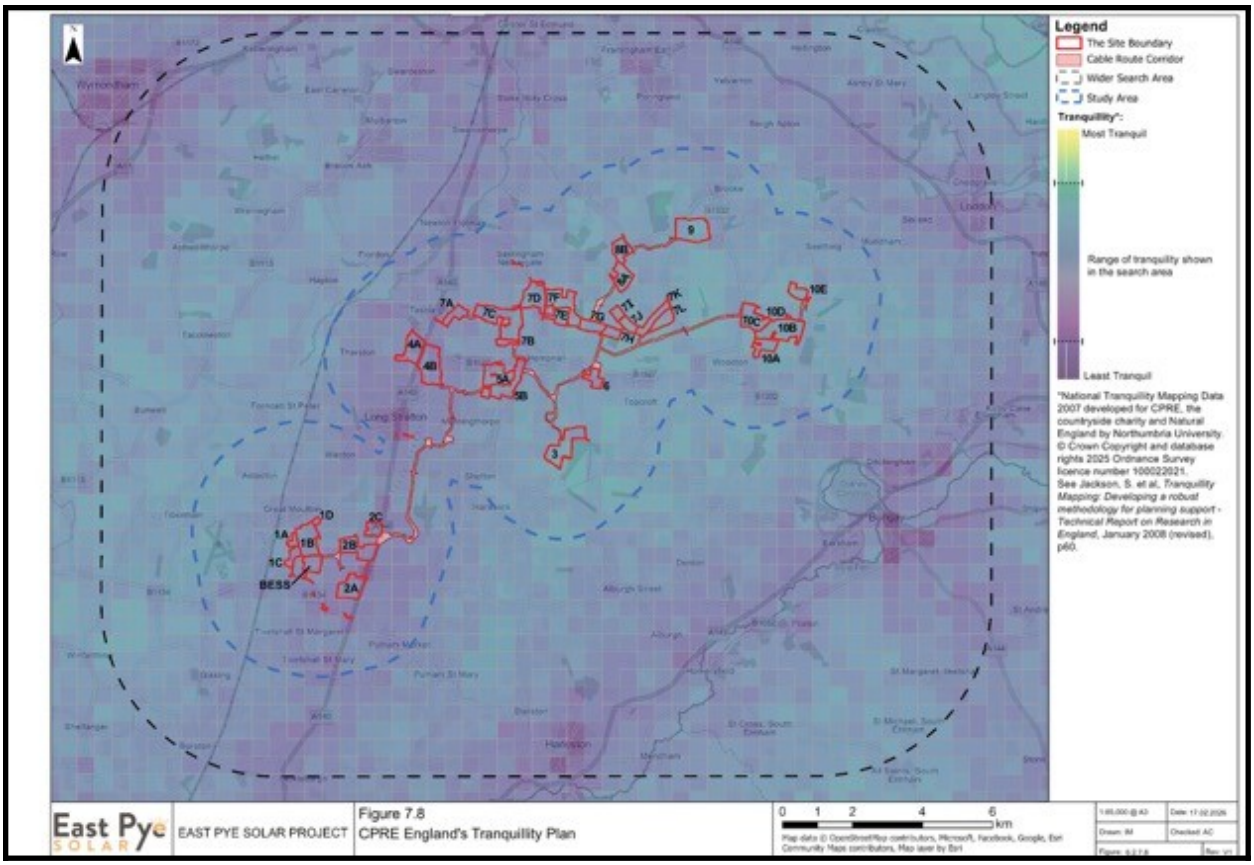


East Pye Solar Total Zone of Theoretical Visibility

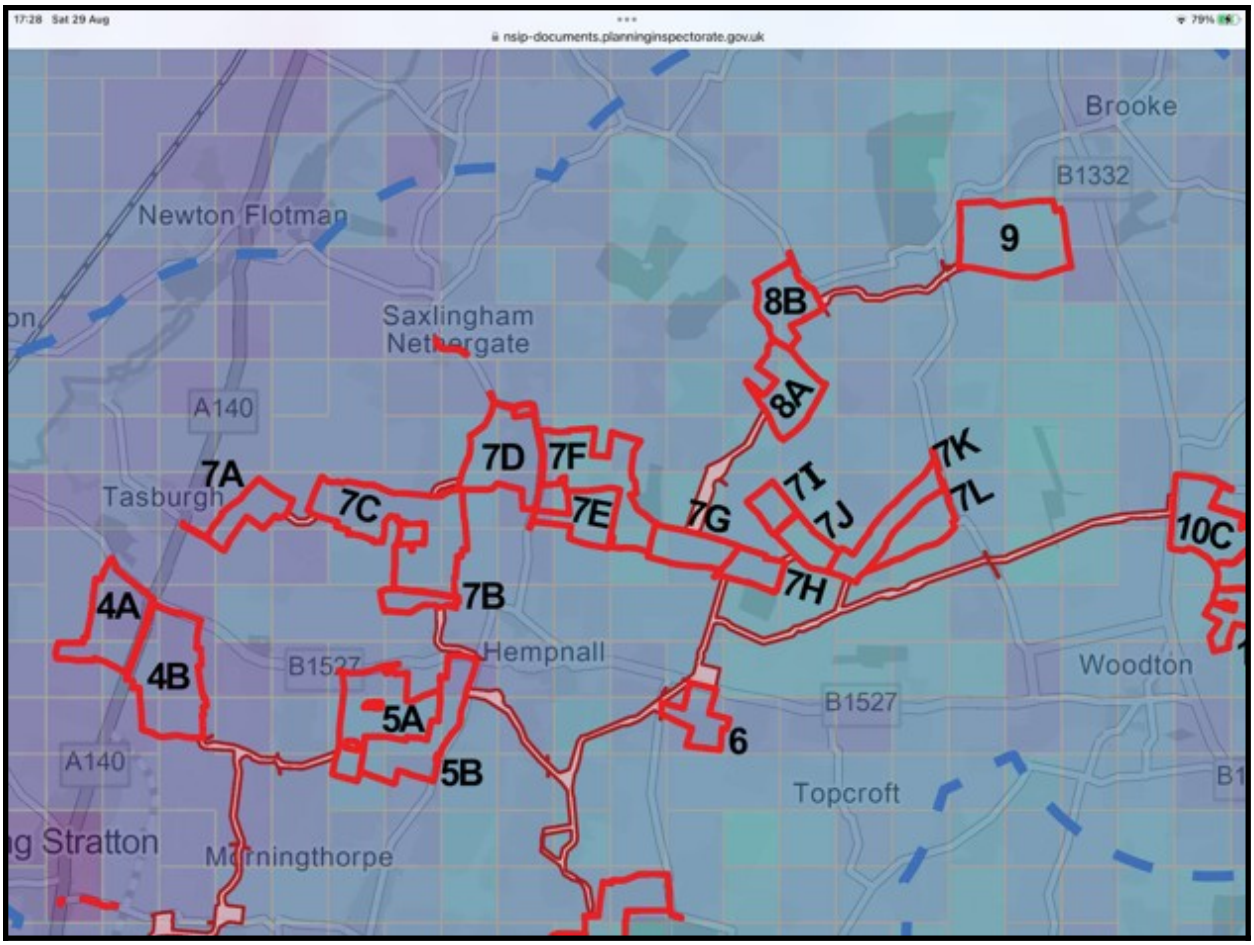
The fields left for farming won't be visible past the height and size of the panels and substation whilst the 'fields of grey' from the solar will visually detract away from the tranquility of green forest, meadows, river valley, yellow and gold crop-growing fields.

Area of Tranquility

The area covered by Site 7 is considered some of the most tranquil in the area (CPRE Tranquility Map) and is popular with walkers enjoying the PRoW, more serious hikers following the Boudicca Way, cyclists enjoying quiet and safe lanes, dog walkers, runners, tourists and local residents.



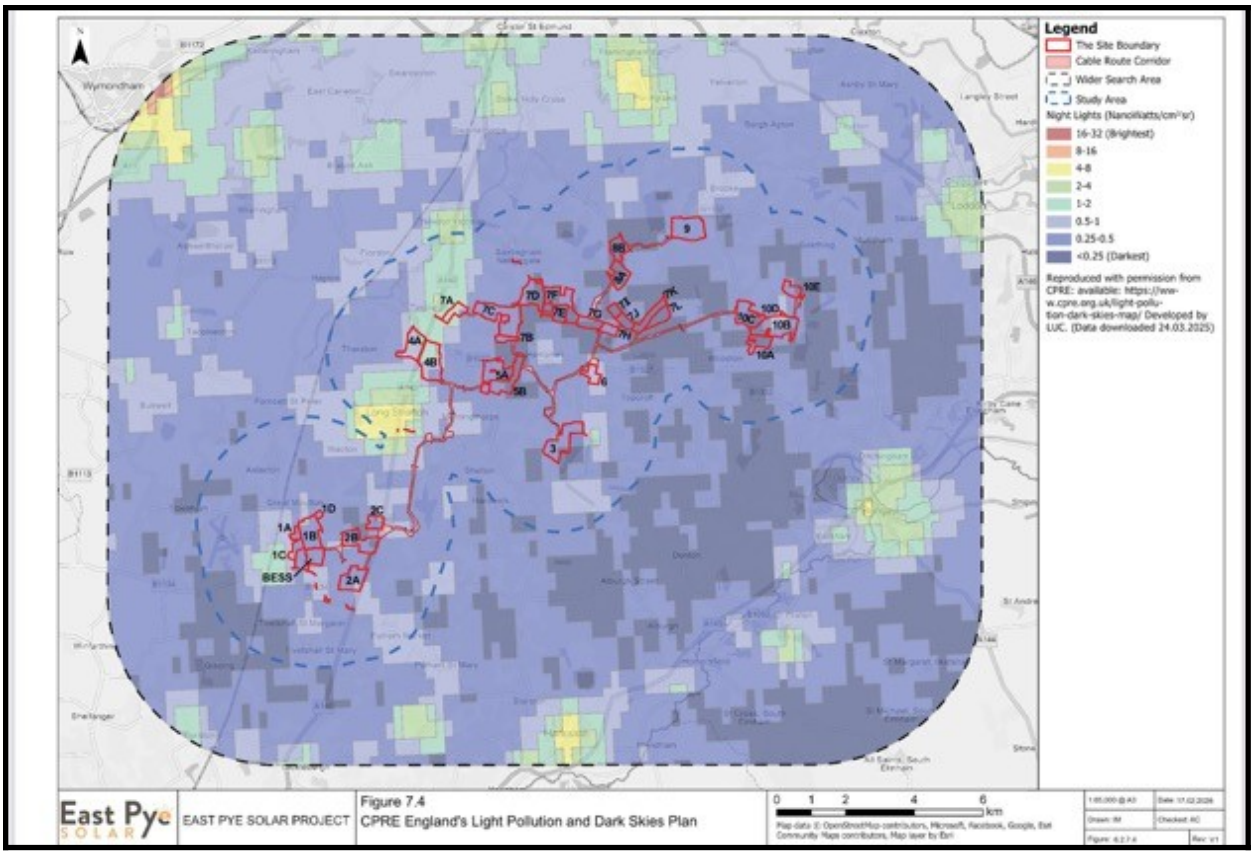
CPRE England's Tranquility Plan



Site 7, CPRE England's Tranquility Plan

Site 7 is also significant as part of the CPRE Light Pollution and Dark Skies Plan (image).

Many visitors come to Norfolks' to enjoy the 'big skies' the county is famous for whilst star gazers also come to the area hoping to view something special or to catch the Northern Lights that are often seen here.



CPRE England's Light Pollution and Dark Skies Plan

Dark Skies is important as it supports the nocturnal and protected wildlife, like the Barbestrelle bat listed as **vulnerable** in Great Britain and **Near Threatened on the IUCN Red List of Threatened Species**. The area is a significant safehold for breeding roosts, foraging and hunting and includes other bats including the Serotine bat also vulnerable.

Site 7 lies entirely within **overlapping Core Sustenance Zones (CSZs) for barbastelle bats** and directly adjoins **ancient woodland confirmed to support maternity colonies.**

Removing such sites will be detrimental to the vulnerable species and will require an Environmental Protective Species Licence.

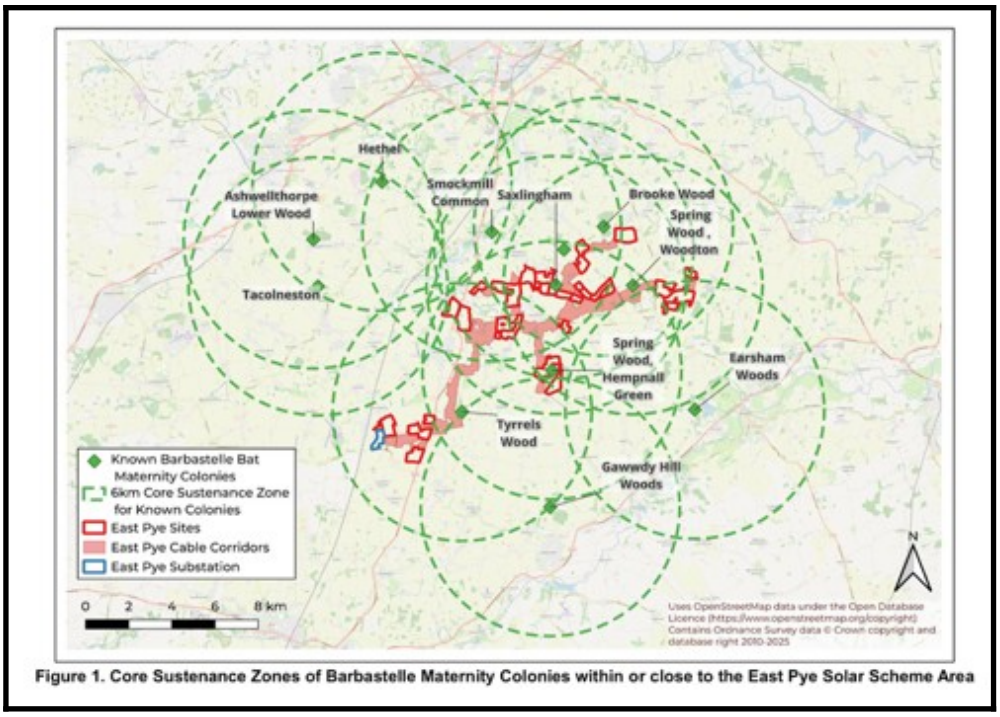


Figure 1. Core Sustenance Zones of Barbastelle Maternity Colonies within or close to the East Pye Solar Scheme Area

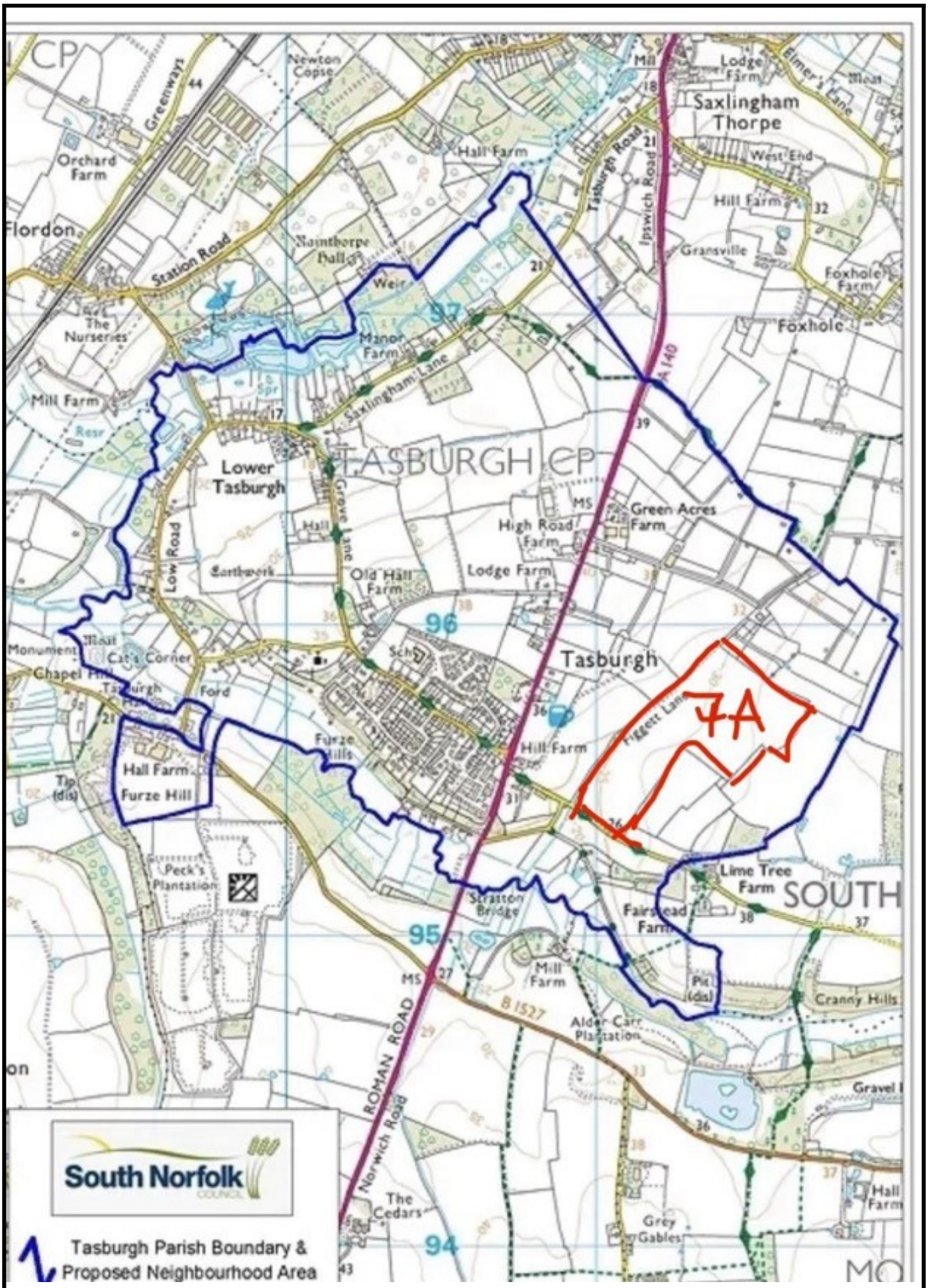
Although a lot of Site 7 is largely agricultural land there are multiple properties in and around this tranquil area; family farms, private homes, local businesses and farm shops.

Boudicca Way walking route and Rebellion Way cycle route travel through this area and will be significantly impacted by the development. Many walkers walk the Boudicca Way, a 58km waymarked route from Norwich to Diss, staying in local campsites and BnBs. The Diss to Norwich run 2025 followed the Boudicca Way route.

Site 7 is sited between, and within, five villages and parishes; Tasburgh, Hempnall, Saxlingham Nethergate, Shotesham and Woodton. All with significant heritage and history.

Tasburgh

The village is sited to the west of the A140 however incorporates sub-site 7A which is 19 hectares (47 acres) of mainly Grade 2 BMV agricultural land growing cereals.


Saxlingham Thorpe
Tasburgh CP
Lower Tasburgh
Tasburgh
Flordon
Hall Farm
Furze Hill
Manor Farm
Green Acres Farm
High Road Farm
Lodge Farm
Old Hall Farm
Lime Tree Farm
Foxhole
Cranny Hills
Alder Carr Plantation
Peck's Plantation
Mill Farm
Grey Gables
The Cedars
Saxlingham Lane
Grove Lane
Low Road
Ipswich Road
Tasburgh Road
Station Road
Norwich Road
ROMAN ROAD
A 140
B 1527
7A
South Norfolk
Tasburgh Parish Boundary & Proposed Neighbourhood Area

Tasburgh lies eight miles south of Norwich and just north of Long Stratton in South Norfolk. The name derives from the Old English meaning ‘Taesa’s fort’ and the River Tas that flows to the west and south of the village.

The parish has a long history and is detailed in the Domesday Book of 1086.

The earliest signs of human occupation are provided by prehistoric flint pot boilers located near the River Tas.

Tasburgh parish has a population of 1,102 people (2021 census) of 467 households.

The layout and geography can be divided into three areas:

- Upper Tasburgh sites near the A140 and features modern post-war housing developments built mainly from 1960s onwards;
- Lower Tasburgh rests down in the Tas Valley and keeps a quiet, rural look with 17th century timer framed farmhouses and cottages;
- River Tas flows nearby and gives the village its historic name.

Tasburgh History and Heritage:

- Hillfort features the remains of an ancient Iron Age and Middle Saxon hillfort earthwork enclosure;
- St Mary the Virgin is a traditional Norfolk church with a round flint tower located near the old fort site;
- Tasburgh Hall is a historic local country house located on the western edge of the parish.

The village enjoys a local pub, a sports and social club, an outdoor play area and a football pitch. The village hall hosts an outreach Post Office service and a Primary School is located within the village boundary.

Hempnall

Hempnall’s name is of Anglo-Saxon origin and derives from the Old English for Hemma’s nook of land and the parish includes five Sub-Sites:

7B - 9 hectares / 22 acres

7C - 75 hectares / 185 acres

7E - 23 hectares / 57 acres

7G - 21 hectares / 52 acres

7H - 14 hectares / 35 acres

Hemnall parish on Site 7 alone is proposed to support 142 hectares or 351 acres of Best and Most Versatile 1-3a agricultural land.

Named in the Domesday Book 1086, Hempnall is listed as a settlement of 57 households. According to the 2021 census, Hempnall now consists of a total population of 1238 people.

The parish covers an area of 5.72 sq miles

At the heart of the village is the Conservation Area with the Grade I listed St Margaret the Virgin place of worship dating to the 13th century. It still holds Sunday service every day.



St Margaret the Virgin, Hempnall

This active village has multiple amenities including the village hall; the hub of Hempnall and serves multiple sports and social clubs from badminton, yoga and pilates, a blood donation bank and the parish council. There is a substantial playing field with many children's facilities plus a tennis club with two floodlit courts and local football club. The convenience store houses the post office, the 'Hempnall Trust' village charity runs the Grade II listed Hempnall Mill, now a Centre offering a variety of services including a weekend community bar with weekly food trucks plus an older peoples lunch group and a room for hire, to name a few.

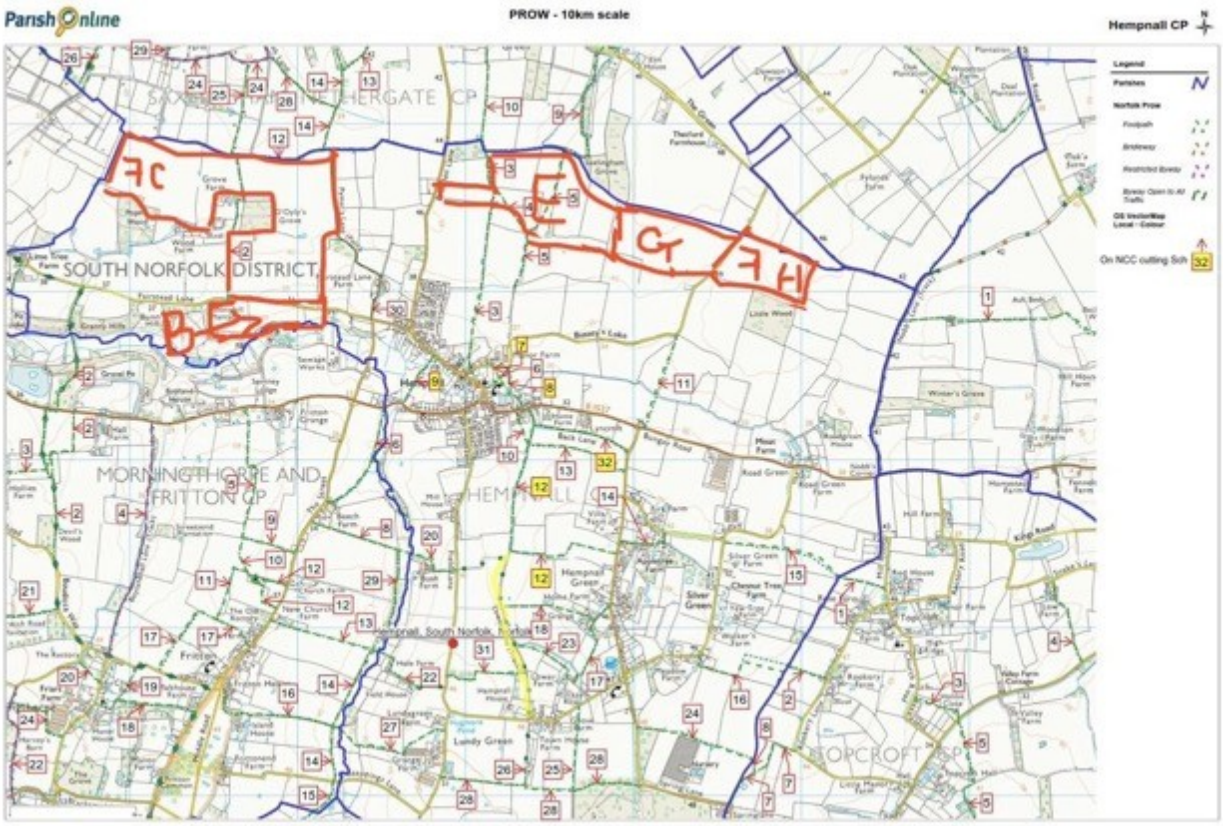


The Mill Centre, Hempnall

Hempnall War Memorial is a wheel-headed cross with plinth and rustic base located at the junction of Broaden Street and The Street with Fairstead Lane.



Hempnall War Memorial


Parish Online
PROW - 10km scale
Hempnall CP
SOUTH NORFOLK DISTRICT
MORNINGTHORPE AND FRITTON CP
HEMPNALL
STOPCROFT CP
Hempnall, South Norfolk
Legend
Parishes
Norfolk Prow
Footpath
Bridleway
Restricted Byway
Byway Open to All Traffic
OS VectorMap Local - Colour
On NCC cutting Sch
32
A
B
C
D
E
F
G
H

Saxlingham Nethergate is the northern area of Site 7 and includes sub-sites 7D and 7F of mainly BMV Grade 1-3a growing various cereals covering 95 hectares (234 acres).

The parish consists of two settlements and at one time was two parishes; Saxlingham Nethergate or lower parish, which includes Eastgate, now Saxlingham Green, and Saxlingham Thorpe (a settlement) which incorporates the hamlet of Foxhole.

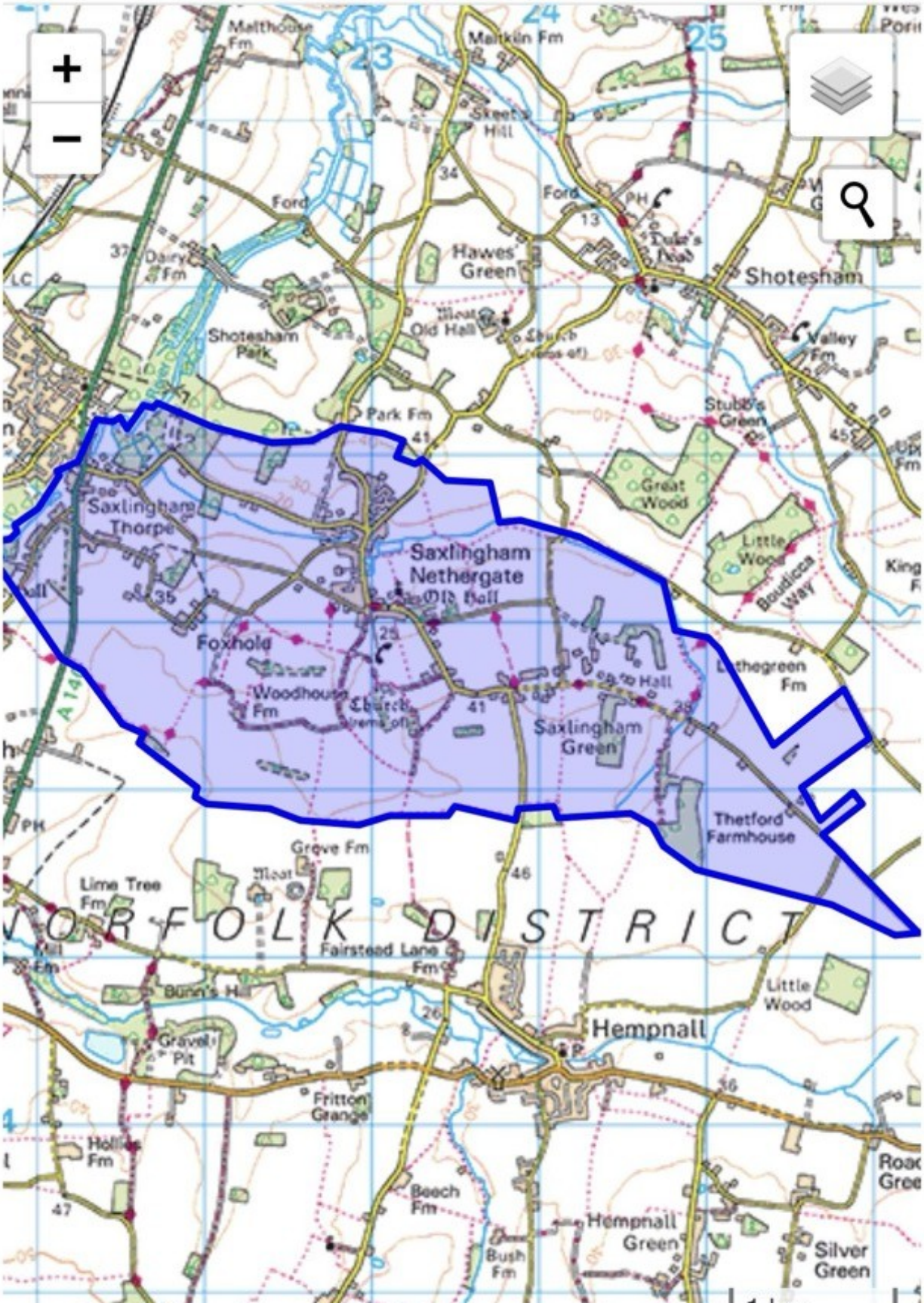
Despite the village appearing to be a Saxon settlement, flint tools have been found which imply Stone Age settlements and much later, Iron Age and Roman occupation is indicated by potsherds and coins as well as foundations of buildings being shown by changes in the colour of the vegetation.

Saxlingham means the settlement of Sax or Saxe which could be the name of a person or a tribe. It also implies the people carried a war axe known as a seaxe (fortunately not seen any more!)

Saxlingham Nethergate has a population of 732 people (2021 census) living in 295 households. The parish covers about 3.3 square miles with a Conservation Area at its centre with multiple listed heritage buildings and a Grade II listed War Memorial, which the residents are fiercely protective about.



Saxlingham Nethergate War Memorial


Malthouse Fm
Malkin Fm
Skeet's Hill
Ford
Ford
PH
Hawes' Green
Shotesham
Dairy Fm
Shotesham Park
Moat
Old Hall
Church (ruins of)
Valley Fm
Stubb's Green
Park Fm
Great Wood
Little Wood
Boudicca Way
Saxlingham Thorpe
Saxlingham Nethergate
Old Hall
Foxhold
Woodhouse Fm
Church (ruins of)
Saxlingham Green
Lethegreen Fm
Thetford Farmhouse
A140
Grove Fm
Lime Tree Fm
NORFOLK DISTRICT
Fairstead Lane Fm
Bunn's Hill
Gravel Pit
Hempnall
Little Wood
Fritton Grange
Holly Fm
Beech Fm
Hempnall Green
Bush Fm
Silver Green

Shotesham

A South Norfolk village approximately 5 miles south from Norwich in The Valley of the river Tas.

The parish covers an area of 5.60 sq mi and a population of 562 (227 households, 2011 census).

In local dialect, Shotesham is pronounces “Shottsum” with the emphasis placed on the vowel of the first syllable.

Shotesham was for many years the Norfolk seat of the D’Oyly family and of the D’Oyly baronets who also possessed Suffolk estates.

The country house and estate of Shotesham Park Grade I listed, is the seat of the Fellows family. Designed by Sir John Soane (1753 - 1837), an English architect who specialised in the Neo-Classical style, became a Professor at the Royal Academy and knighted in 1831.



Shotesham Park House, 1789

All Saints’ Church stands in the centre of the village, is from two distinct periods, with the medieval tower and nave whilst the chancel is from the early 20th century.

Our galaxy rising over All Saints, taken by Chris Dean, on Norfolk Country Photographs.



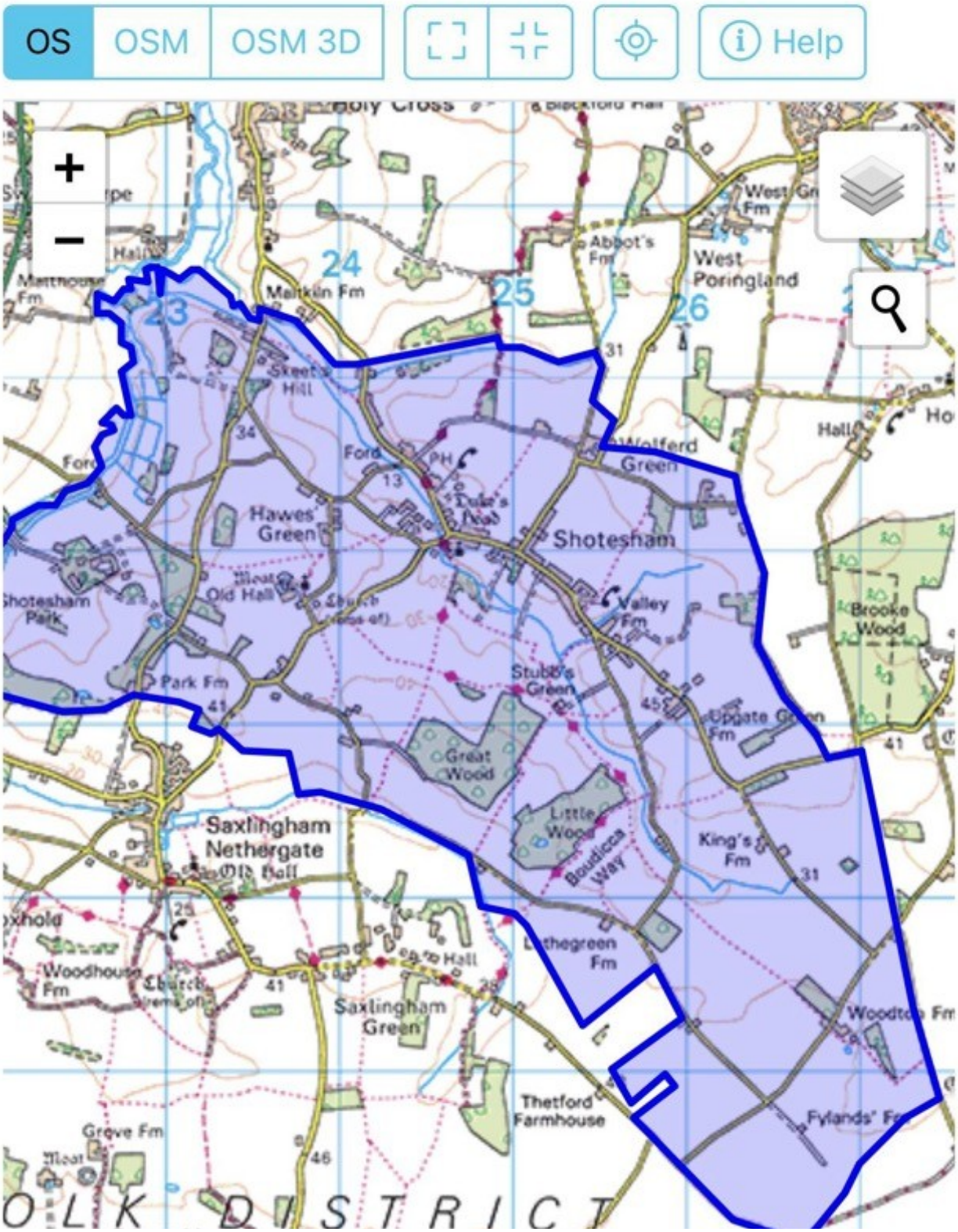
The parish will host three sub-sites totaling 50 hectares or 124 acres of BMV Grade 3 agricultural land.

7I - 10 hectares / 25 acres

7J - 14 hectares / 35 acres

7K - 26 hectares / 64 acres

Shotesham parish map




Search Google Earth
I
Stubb's Green
Saxlingham
Green

Woodton

Woodton is situated in the south of Norfolk, north of Bedlington nad Topcroft, east of Hempnall, west of Hedenham and south of Brooke and Kirkstead.

The name Woodton may derive from Old English meaning ‘settlement in the woods’.

The parish has a long history and was established by the time of the Normal Conquest. It’s population, land ownership and productive resources were detailed in the Domesday Book, 1086.

The earliest finds from Woodton date back Neolithic and Bronze Age from the 23rd century BC to 7th century BC.

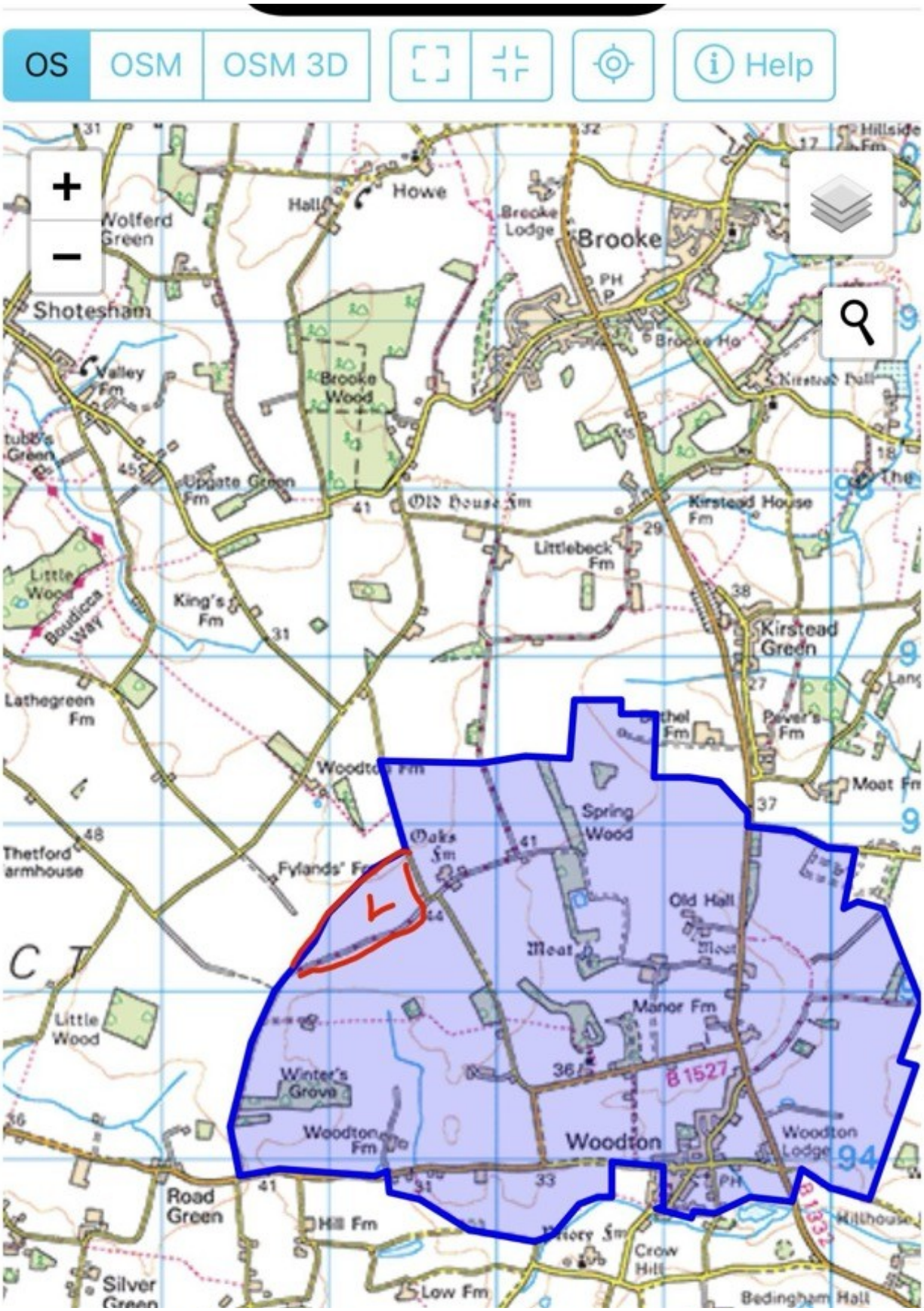
Medieval archaeology is more noticeable in the form of the All Saints’ Church which dates back to the 12th century and stands in a walled churchyard and is notable for its round tower.



All Saints Church

The parish of Woodton covers an area of 3.42 sq miles and a population of 702 and will host one Sub-site:

7L - 22 hectares / 54 acres


OS
OSM
OSM 3D
Help
Howe
Brooke
Shotesham
Wolferd Green
Brooke Wood
Kirstead Green
Littlebeck Fm
Kirstead House Fm
Old House Fm
Spring Wood
Oaks Fm
Old Hall
Manor Fm
Woodton
Woodton Fm
Winter's Grove
Road Green
Silver Green
Crow Hill
Low Fm
Bedingham Hall
Lathegreen Fm
Thetford
Little Wood
B1527

Area per Sub site and Soil Quality

Site Name	Area Hectares	Area Acre	BMV Soil Quality
7A Tasburgh	19	47	Mainly Grade 2
7B Hempnall	9	22	Grade 4
7C Hempnall	75	185	Grade 2
7D Saxlingham Nethergate	44	108	Grade 2-3b
7E Hempnall	23	57	mainly Grade 2
7F Saxlingham Nethergate	51	126	Grade 2-3a
7G Hempnall	21	52	Grade 3a
7H Hempnall	14	35	Grade 3a
7I Shotesham	10	25	Grade 3b
7J Shotesham	14	35	Grade 3b
7K Shotesham	26	64	Grade 3a
7L Woodton	22	54	Grade 3a

Chapter 2: Environmental Impact Assessment Methodology and Flaws

East Pye Solar state in their Site Selection Assessment document APP/7.20, when considering the site selection process, they had several constraints and preferences:

- **Utilise** previously developed land, brownfield land, contaminated land, or industrial land;
- **Avoid** agricultural land or if unavoidable to use land that is not classified as BMV (1,2,3a) so looking at land that is 3b and 4;

- **Avoid** land in Flood Zone 2 and 3;
- **Avoid** land designated as Site of Special Scientific Importance (SSSI) as well as ancient and non-ancient woodland;
- **Avoid** any Scheduled Monuments, Registered Battlefields, dense concentration of listed buildings and Conservation Areas;
- **Avoid** area to the proximity of nearby sensitive human receptors (high sensitivity) which include residential dwellings, populated areas and villages.

What they have done:

- **No land** is brownfield, previously developed, contaminated or industrial;
- **Around 80% of solar sites are BMV grade 1-3a including Site 7 which is mainly a mixture of BMV Grade 2 and 3a;**
- Some of Site 7 is in **Flood zone 3 with the rest in Flood Zone 2 (magic map);**
- The majority of **site 7 is designated Medium to High groundwater flooding** and with some of **Site 7 in High Priority Flood Risk Management in sections;**
- The whole area is part of **Natural England's National Character Area 83, South Norfolk and High Suffolk Claylands** with 25 years planned restoration and regeneration in place;
- Cable Route Corridor (CRC) and internal proposed haul road passes through the Claylands, significant to regeneration of character and wildlife protection, as well as adjacent to **several ancient and non-ancient woodland** areas;
- **Site 7 sits with the five parishes** of Tasburgh, Hempnall, Saxlingham Nethergate, Shotesham and Woodton with their **Conservation Areas** within a few hundred metres of some sites;
- Transport routes for Site 7 includes manoeuvring the narrow lanes of Saxlingham Nethergate, and Hempnall including through the Conservation Areas as well as impacting major transport routes of the A140, Hempnall roundabout and narrow or singletrack lanes like Fairstead Lane and the Krons not built for more than a car and a tractor;
- The villages impacted by Site 7 are areas of **dense concentration of listed buildings** and some sub-sites are in close proximity to many listed buildings Grade I, Grade II* and Grade II;
- Planned transport routes in some cases of High Sensitivity, in particular on Broaden Lane where it goes past Hempnall Primary School and Saxlingham Nethergate Primary School.

In fact the cumulative scheme is near, around or adjacent to multiple villages, near dwellings and multiple listed buildings, ancient woodland, SSSI and Conservation areas.

A Scheme should be made to fit a landscape not a landscape be made to fit a Scheme.

This alone demonstrates the proposed scheme is too big and in the wrong place. That cannot be mitigated against.

The scheme is driven by willing landowner sites only which isn't a good enough reason to remove BMV from production nor decimate and change the character of the area forever.

Soil and Agriculture

With around 80% of the solar sites being BMV Grade 1-3a and no soil surveys have been taken on the CRC but assumed to also be BMV1-3a, **justification of using BMV under National Planning Policy Framework (NPPF) should be made.**

The scheme is landowner driven rather than scheme driven.

Within the **Botley West DCO** review, the Secretary of State (SOS) requests *'to secure the* ***restoration of BMVL to at least their pre-construction agricultural land classification grade upon decommissioning.*** *Appropriate monitoring to aid the soil restoration should also be outlined in the Soil Management Plan.*

The SOS requested justification as to the siting of the scheme on BMVL and how the alternatives or avoiding BMVL altogether have been considered during site selection.'

East Pye Solar have not justified the use of BMV at all and in particular land categorised as BMV 1-3a.

The same requirements for Botley West should be applied to East Pye Solar who have actively sought agricultural land instead of alternatives.

If suitable alternatives couldn't be found, shouldn't the scheme in this area be considered too big and the wrong place?

Access and Transport

Some transport surveys were carried out in April - May 2025, others 'in September' as a neutral month although a key tourist time for Norfolk (although the year wasn't stipulated) and others in November. None have been updated after the Long Stratton by-pass was completed.

- Access/transport routes assessed by desk top;
- **The A140 south - B1527 requires further assessment as the cumulative schemes accessing Sites 2A, 2B, 2C, CRC3 and CRC4 exceeds the IEMA EATM guideline thresholds of more than 10% flow increase on links with receptors of High Sensitivity.**
- This flaw affects Site 7 as much of the haulage will be held at Site 4A before called on to Sub-site 7A-F impacting the Hempnall roundabout and causing congestion and road user risk. It could also mean transport routes will again be amended and therefore consulted on;
- As the A140 is a major haul road and the main access route to most of the scheme this is a major flaw and demonstrates lack of in-depth transport surveys were taken;
- Different transport studies were taken with different results making understanding of the results challenging at best and generally incomprehensible and skewed;
- Knowing the roads in question, the results are highly questionable as the single track lanes aren't suitable for HGVs but will serve a delivery van and farm traffic;

- **HGV count includes vehicles over 3.5 tonne fabricating the results.** These will include delivery vans, work vans, Supermarket vans, ambulances, flatbed trucks, horseboxes, farming vehicles, buses, mini buses, motorhomes, towed caravans to name a few. Rarely it will include a HGV therefore the actual HGV increase rate will be far greater;
- **Site 4A will act as a holding point for haulage to be called on to 7A-7F;**
- **Access to Site 4A at A19 will be via from a newly created 5th exit off the A140** 4-exit Hempnall roundabout that serves over 20,000 vehicles a day;
- Built in 2019 due to the junction being an **accident 'hot spot',** it is a major haul route on the A140 north to south as well as east to west as a connecting route to market towns;
- Norfolk County Council refused access to Sites from A-roads yet and anything less than a B-road. This access point is not just from an A-road but also a **major junction on the A140**;
- **A19 accesses a major construction Compound and haulage holding site for 7A-7F** which will cause further congestion at the roundabout;
- Access to the haul road for Site 7 is from a C-road;
- With many local lanes closed with the bypass construction, all residents east of Long Stratton had to use B1527 west of The Street, Fritton/the Krons crossroads to the Hempnall roundabout making the figures for B1527 higher than normal. This has not been taken into consideration nor has surveys been repeated since the by-pass opened;
- Many lanes and access points haven't been surveyed including the junction with Brick Kiln Lane and B1527 which will serve haulage to site 4B, Site 5A and Site 5B as well as Sub-site 7A-7F;
- Visibility splay at access points cannot be achieved without removing significant habitat like wooded areas and hedgerows;
- **Many maps on the EPS documents are incorrect** as they **exclude the Long Stratton by-pass and changes to local road networks,** including the Streets Plan dated 3/4/2026 (see image below);
- A 7.5m wide CRC haul road is planned for HGV traffic across Site 7 without sufficient Ground Surveys to access suitable land;
- A haul road is planned to go across sub-site 7F and will move across a National Gas Transmission Pipe without considering the buffer zone around it and the risk it entails;
- **National Gas Transmission have objected to the scheme** due to lack of communication. That demonstrates lack of integrity and professionalism.
- The transport route to haulage route 7A-7F is via the Krons, a lane not meant for heavy haulage and no assessment has been made of the brick bridge over the Hempnall Beck (described as insignificant). East Pye Solar report that no weight limit signs are visible



The Krons bridge over the Hempnall Beck (river Tas tributary)



The Krons



The Krons

The ES: Chapter 11 - Transport and Access APP/6.1.11 shows traffic flow across key survey points in the scheme yet the table 11.10 ACT Baseline Traffic Flows show deviating figures between 18hrs and 24hrs whereby the 24hr flow rate is less than the 18hr.

Obviously either the results are flawed or the table **is poorly explained.**

The document does **not**, immediately alongside Table 11.10, give a sufficiently clear explanation of **how the 18-hour AAWT figures were calculated from the 24-hour ATC data**, or why the 18-hour statistic can exceed the 24-hour AADT.

That makes the presentation potentially confusing, particularly because a reader could reasonably interpret the headings as:

“vehicles counted in 18 hours” versus “vehicles counted in 24 hours.”

If that were the intended meaning, the figures would indeed be impossible.

Instead, they appear to be **different traffic-flow metrics**, not simple 18-hour and 24-hour counts.

There is another significant point

Notice what happens with the HGV figures:

A140 (N-B1527):

- 18-hour HGVs: **3,441**
- 24-hour HGVs: **2,792**

That is a difference of **649 HGVs**, or about **23%**.

So this isn’t simply a rounding issue. The same systematic relationship appears across the table.

East Pye Solar/Stantec need to provide the calculation methodology and underlying ATC data for Table 11.10.

In particular, explain:

1. What exactly **AAWT (18-hour)** means in this table.
2. What hours constitute the 18-hour period.
3. How the 18-hour AAWT has been calculated from the seven-day ATC data.
4. Why an 18-hour AAWT can be higher than the 24-hour AADT.
5. Whether the 18-hour and 24-hour figures have been derived from **the same survey data and same averaging period**.
6. Whether any **DfT conversion factors, seasonal factors, weekday factors or other adjustments** have been applied to either figure.

The ES states that Table 11.10 provides the baseline traffic flows on which the subsequent transport assessment is based, so understanding how these numbers were produced matters.

Cable Route Corridor Surveys

In December 2025, during the meeting with the Planning Inspectorate, and documented on 5th February 2026, East Pye Solar was advised to consider undertaking Agricultural Land Surveys (ALS) on the cable route corridor (CRC) referencing 'Oaklands Farm Solar Park' whereby Natural England raised concerns about the assumptions on land quality in that case and requested an ALS survey to be undertaken on the CRC during the examination.

The Inspectorate also advised the applicant to ensure relevant surveys were completed in time.

No surveys have been carried out on the Cable Route Corridor (CRC) for ALS.

In fact throughout the documents the Applicant still refers to **the need for 'detailed design' at a later stage** when discussing the CRC. How can this be assessed as to what to expect if it is still unclear of the detailed design that hasn't been finalised and surveys not undertaken?

So much of the CRC is incomplete as the land, access and route hasn't been surveyed and there are multiple inaccuracies including the nearest properties across the scheme.

Unregistered / Unknown Land Ownership and Book of Reference

- Section 56 notices were issued during 2025 and letters were sent to multiple residents asking about financial information causing worry, fear and stress including those in their 90s;
- Section 56 notices then began to appear again across the scheme from early May 2026, a week after the Planning Inspectorate registration opened and up until early June, less than 10 days before the close of Planning Inspectorate registration. New notices in Saxlingham Nethergate were posted on 30th May 2026;
- Many notices were posted several miles away from the relevant area and included up to 20 notices at a time;
- At least two homes were listed on posts under section 56 as 'unregistered' and these notices were posted considerable distance from the properties listed and owners were unaware;
- Ivy Cottage, Hempnall was listed on a post 3 miles away and the owners were notified by friends;
- The homes, as well as many others, are listed within the Book of Reference yet the owners were unaware;
- Martin Jenkins, the owner of Purbeck, Long Stratton has submitted his opinion on the Relevant Representation after being told by a neighbour that his home and garden was listed on a post 500m down a lane from his home;
- East Pye Solar told the owner of Purbeck, Long Stratton that they had written to them yet that is untrue. It's the same case for many people listed in the Book of Reference;

- East Pye Solar told the owner of Purbeck that their property was not in the public domain and yet is listed, not just on a post 500m away down a lane they wouldn't have accessed, but also they are listed within the Book of Reference. Both in the public domain;
- Purbeck is an example of property listed as 'unregistered/unknown' yet they are within the Book of Reference with full names and address of interested parties as well as of course EPS stating they had been written to;
- Many Section 56 signs appearing during the registration period were extended areas or different from the DCO. Some areas have not been included within the DCO;
- Many Section 56 signs are unidentifiable locations and could be anywhere;
- Many Section 56 notices were removed, some deliberately and found as litter blowing in a verge, whilst others were removed including the posts and not replaced when requested.
- 1st June 2026 Land notices erected since East Pye submitted their proposal Saxlingham Nethergate;

- Notices have been erected across the whole site several weeks after the submitted proposal. Saxlingham Nethergate is subject to at least 20 new notices. Some of these impact directly on people's homes. There has been no public consultation;

- an increased land take on The Street/Church Hill including the War Memorial and up to the school;
- a comparatively large and new take to include the house "Pisces". It is not immediately clear why this land is required. The owner should be informed in case he has not been approached by the Applicant;
- A larger land take around the corner opposite Low Farm Cottages.

Within the Botley West response, the Secretary of State notes that a large number of plots identified as unregistered/unknown land ownership are within the Book of Reference where it has not been possible for the Applicant to identify ownership. The applicant has been requested to provide details of the diligent inquiries undertaken and to establish the ownership of the plots and provide an update on whether ownership has been identified. The applicant is also requested to update the Book of Reference.

Based on the evidence that homes and land parcels are being posted miles away from relevant plots, it would appear that East Pye Solar has not been diligent enough and the same should be expected of them as it is of **Botley West.**



This plot has not formed part of the consultation and is not part of the DCO

SECTION 56 PLANNING ACT 2008

East Pye SOLAR

NOTICE OF ACCEPTANCE OF AN APPLICATION FOR A DEVELOPMENT CONSENT ORDER (DCO) BY THE PLANNING INSPECTORATE (ON BEHALF OF THE SECRETARY OF STATE) UNDER SECTION 56 OF THE PLANNING ACT 2008

East Pye Solar

IMPORTANT NOTICE FOR PERSONS WITH AN INTEREST IN THIS LAND ATTACHED

TO: **The owners, lessees, tenants and any occupiers of this land and the subsoil of this land comprising the area of land shown shaded blue on the below plan and anyone with an interest in it or with the power to sell, convey or release it or people who could have a relevant claim as a result of the East Pye Solar project going ahead.**

Notice Reference: Unregistered240



This Plot was not part of the consultation and not part of the DCO

TO: ...ONS WITH AN INTEREST IN THIS LAND ATTACHED

The owners, lessees, tenants and any occupiers of this land and the subsoil of this land comprising the area of land shown shaded blue on the below plan and anyone with an interest in it or with the power to sell, convey or release it or people who could have a relevant claim as a result of the East Pye Solar project going ahead.

Notice Reference: Unregistered1076



This plot could be anywhere

East Pye SOLAR

SECTION 56 PLANNING ACT 2008

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Notice Reference: Unregistered233



This plot was not part of the consultation and not part of the DCO

East Pye SOLAR

SECTION 56 PLANNING ACT 2008

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Notice Reference: Unregistered645



This plot was not part of the consultation nor is within the DCO

SECTION 56 PLANNING ACT 2008

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Notice Reference: Unregistered257



This plot is larger than the DCO

- 

This is the same area on The Street Plan

East Pye
SOLAR

SECTION 56 PLANNING ACT 2008

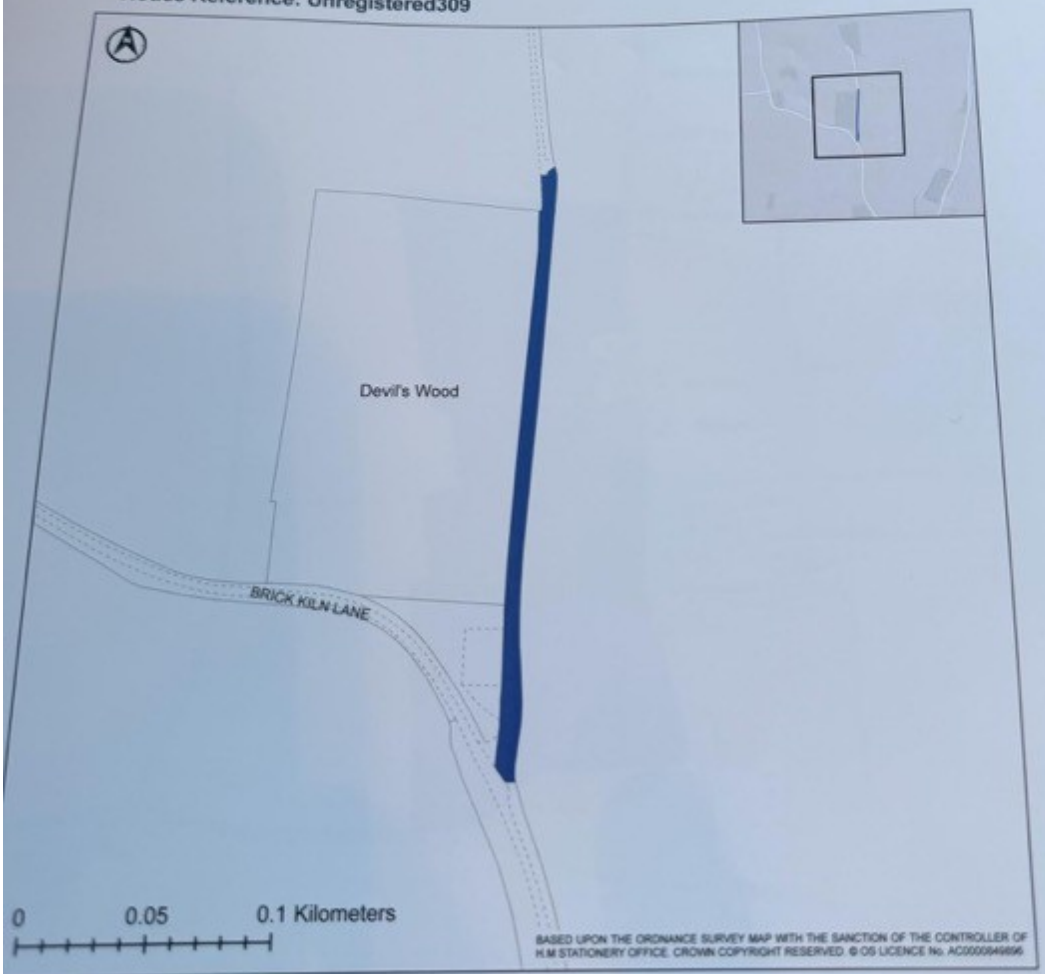
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Notice Reference: Unregistered309



This plot is larger than the DCO

East Pye

SECTION 56 PLANNING ACT 2008

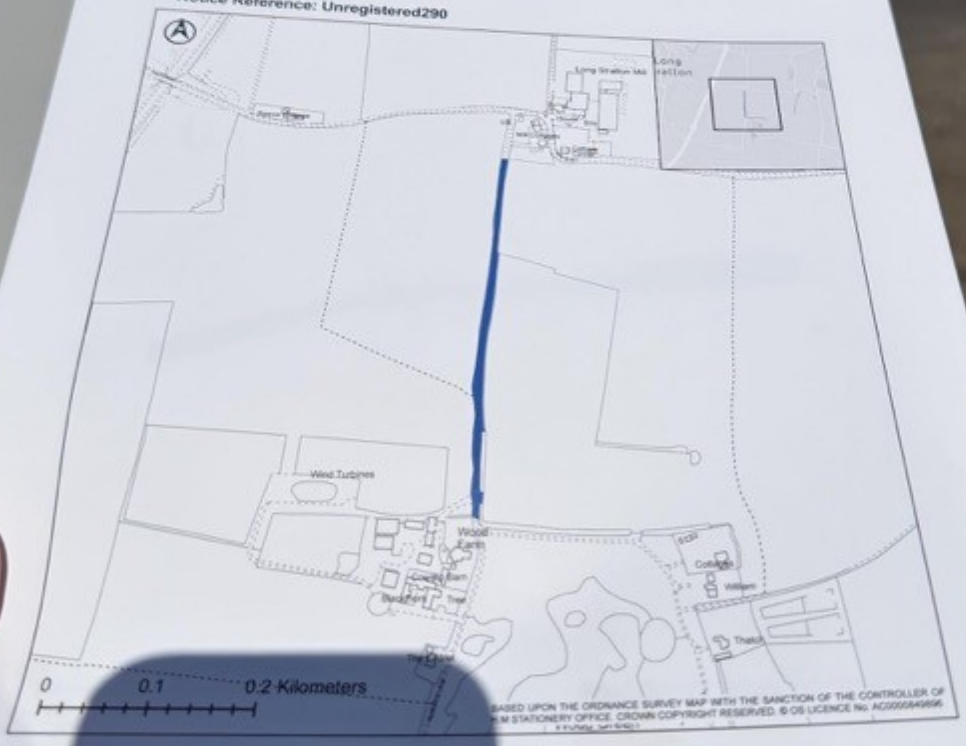
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East Pye Solar

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Notice Reference: Unregistered290



BASED UPON THE ORDNANCE SURVEY MAP WITH THE SANCTION OF THE CONTROLLER OF HM STATIONERY OFFICE. CROWN COPYRIGHT RESERVED. © OS LICENCE No. AC0000849956

This Plot is larger than the DCO

East Pye
SOLAR

SECTION 56 PLANNING ACT 2008

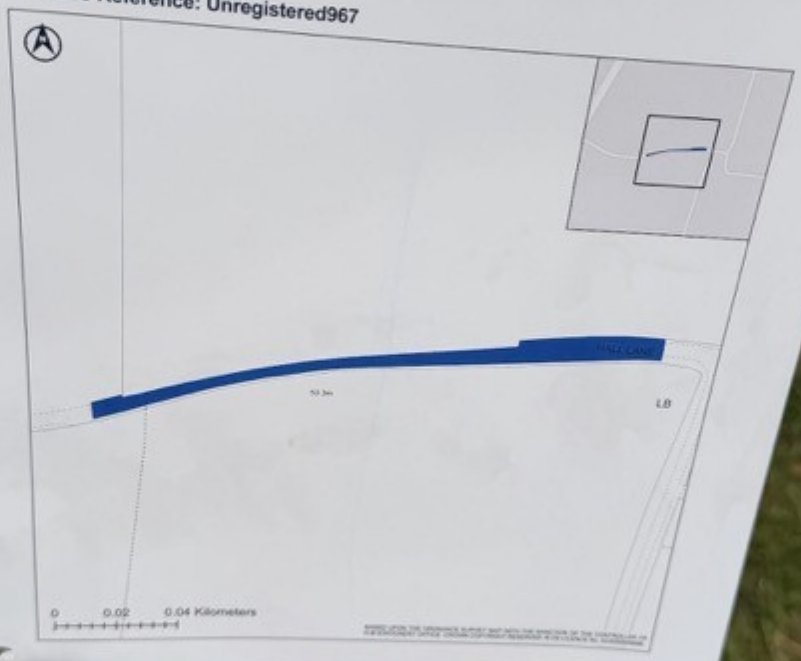
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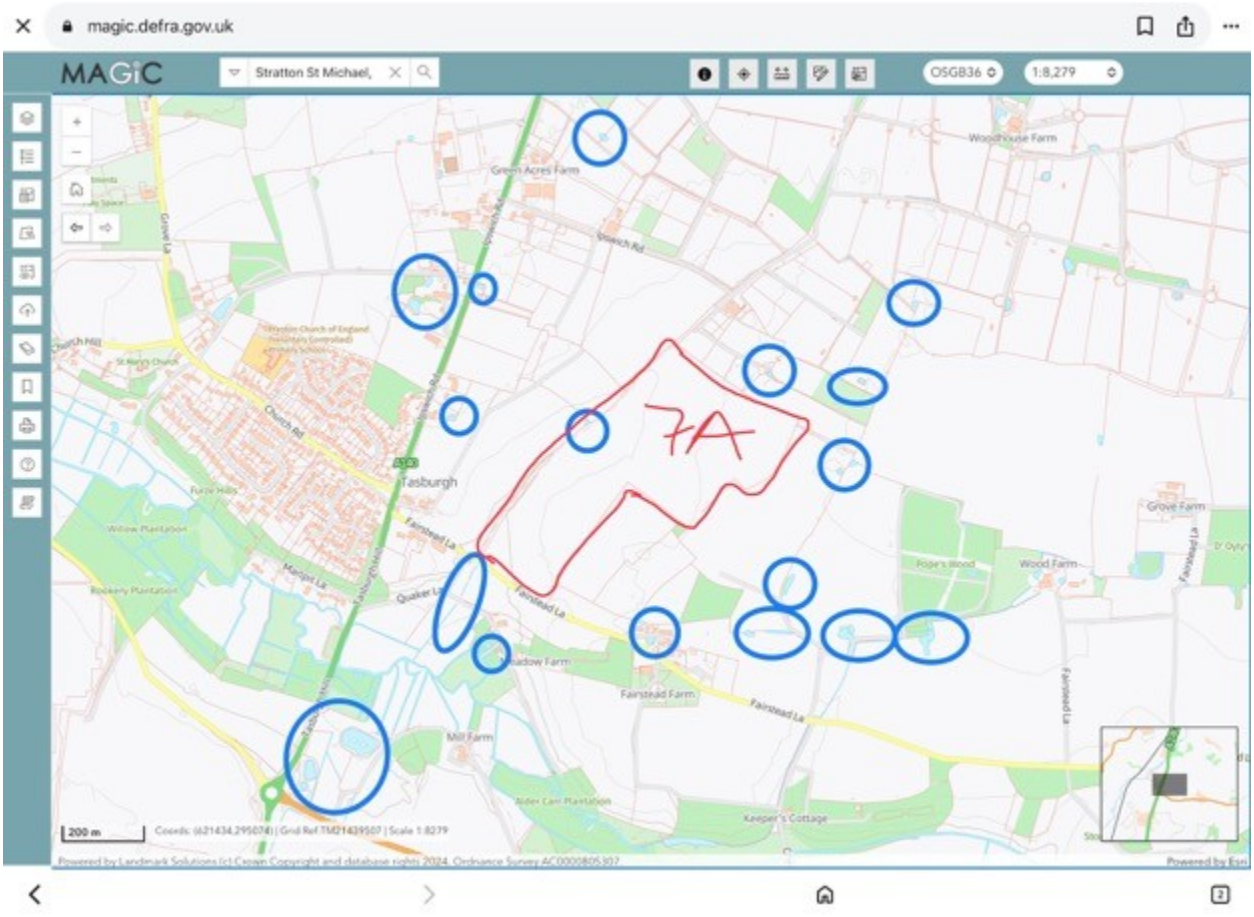
Notice Reference: Unregistered967



This plot could be anywhere however I know where this is (Mill Road, Long Stratton) and it is larger than the DCO

Great Crested Newts (GCN)

- **Natural England** will only accept survey results carried out within the optimum survey period between **mid April to the end of June;**
- **From Natural England,** 'a survey for Great Crested Newts should be conducted where there's a suitable water body such as a pond or ditch within **500 metres** (m) of the development, even if it only holds water for some of the year' Gov.uk;
- Great Crested Newts have been located on multiple ponds and water areas on Site 7 and across CRC based on data records since 2006 up and until 2023 EPS Environmental Study Vol3; App 8.3 March 2026;
- East Pye Solar stated Surveys were to be carried out June 2024 and June 2025 on other ponds and water areas on sites;
- Further surveys were carried out on a 250m buffer zone and are dated towards the end of June (at the end of the optimum survey time) also into July, August and September;
- GCN were found to be on ponds and water areas within Site 7 and within the 250m buffer zone of Site 7;
- No surveys were carried out on ponds on CRC as ponds were not present on the online mapping and only discovered during CRC extended habitat surveys undertaken in late 2025 and therefore status is unknown but precautionary assumption is made. There are GCN on most ponds across the CRC;
- Some results were 'precautionary positive' due to no access or ponds were dry. Surveys on fields during key harvest times and during summer months, especially in June 2025 when the county had been in drought for months, is no surprise;
- Many local ponds have not been surveyed for Great Crested Newts by which there are breeding colonies;
- **Many natural habitats will be removed or disturbed, like significant hedgerows and foraging habitat, during construction;**
- The GCN population is considered important at a local level;
- Absence of a record labelled as 'inconclusive' does not mean there are no Great Crested Newts. It could mean there is no survey data available for that location or data could not be gained;



Map shows water areas in the immediate vicinity to Site 7A

eDNA Survey Season

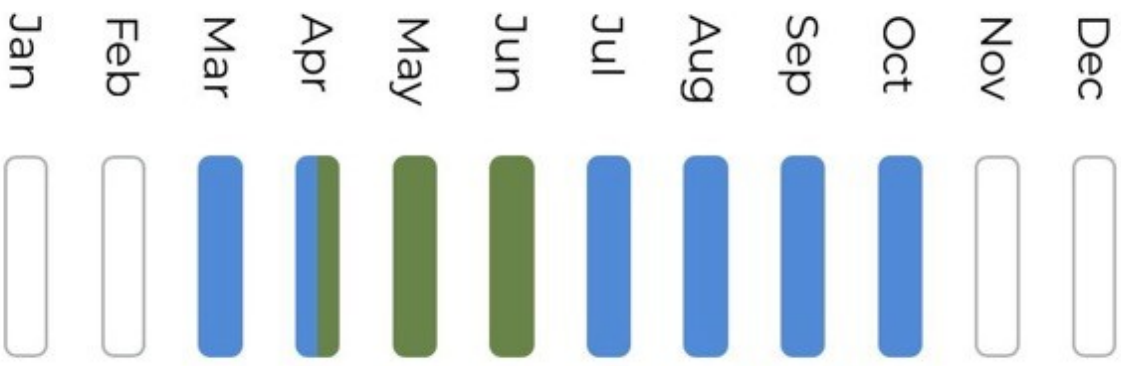
Optimal survey period =

Sub-optimal survey period =

Great Crested Newt



Results for great crested newt eDNA surveys are only accepted by Natural England if the samples were collected between April 15th and June 30th, however, we can analyse samples taken all year round for other applications.



Taken from SureScreen Scientifics

Bats

Site 7 has multiple areas of woodland that are contained within the scheme as well as surrounded by many areas of woodland and habitat favoured by bats.

Trees considered ‘veteran’and ‘ancient’ by the Woodland Trust, are a perfect habitat for bats.

Bats are regularly sited around Site 7 and clearly have an established habitat.

These colonies are in addition to the maternity colonies of Barbestrelle Bats identified across the site. The Barbestrelle Bat is an Annex II species under the Habitats Directive and is classed as vulnerable in the UK. Whilst rare, East Anglia is a known stronghold for the species nationally, particularly Norfolk. As a result, it has been identified as one the **core areas suitable for the implementation of the Species Recovery Programme (Harris 2020).**

All bat species are legally protected in the UK as European Protected Species (EPS) in the Habitats Directive and under The Conservation of Habitats and Species Regulations 2017 and prohibits to impair their ability:

- To survive, breed, or reproduce; or to rear or nurture young;
- to hibernate or migrate;
- to affect significantly the local distribution or abundance of species;
- damage or destruction of a breeding site or resting place.

The Wildlife and Countryside Act 1981 states it is illegal to intentionally or recklessly disturb bats whilst in their place of shelter, or obstructing their access to shelter or protection.

A licence from Natural England is required and should not be issued for East Pye Solar to carry out their development as it does not meet the requirements.

East Pye Solar should not be issued permission to develop without the licence as it is undeliverable.

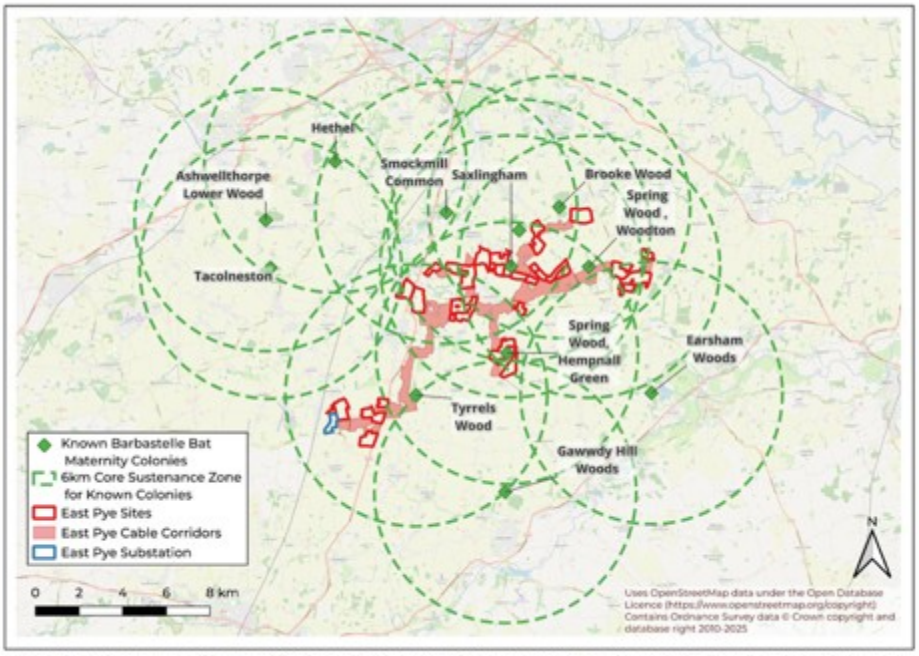


Figure 1. Core Sustenance Zones of Barbastelle Maternity Colonies within or close to the East Pye Solar Scheme Area

Badgers

Several active badger setts have been identified across Site 7.

The submitted badger information is redacted, so affected parties cannot determine whether the active setts have been identified, classified or assessed. This creates a serious uncertainty in the ecological baseline and in the assessment of construction disturbance, severance of foraging/commuting routes, collision risk, lighting, vibration, trench hazards and potential sett interference.

The Applicant should be required to confirm confidentially to the Examining Authority, Natural England and the relevant authority ecologists whether these setts are included in the ES badger survey; whether it is a main, annex, subsidiary or outlier sett; what activity level has been recorded; what buffer distances are proposed from haul routes, fencing, panels, trenches, lighting and construction compounds or substations; whether any works would require a Natural England licence; and where those measures are secured in the DCO requirements and certified documents.

Given that the setts lie in an area also associated with barbastrelle Core Sustenance Zone habitat and within a hydrologically connected landscape draining towards the River Tas with white clawed crayfish and ponds with great crested newts, skylarks, turtle doves and many

red listed birds across the fields, this cannot be treated as a minor isolated constraint. **It is further evidence that Site 7 forms part of a connected ecological network whose disturbance, fragmentation and cumulative effects have not been adequately fixed or assessed.**

Seasonal Surveys and Ground Nesting Birds

East Pye Solar have failed to survey the fields for **Lapwings**, **Skylarks** and **Turtle Doves** as well as seasonal surveys for other wildlife which are protected. The Applicant has relied upon desk top studies.

Absence of data doesn't mean absence.

Skylarks: are present on every field across the scheme and thriving due to protections in place and how the land is being managed. Skylarks will be highly impacted by mass removal of important habitat.

Two years of construction disturbance including the permanent removal of nesting sites for **Skylarks** within the solar sites and the removal of nesting sites, albeit temporary, for the two years of construction on the CRC, will have a serious impact to numbers, which can't be mitigated against.

Removing 810 acres of arable land on Site 7 and adding a few acres of meadow at Site 4B is a gesture not an answer especially when the accumulation of lost habitat is considerable.

In fact, including a small area surely acknowledges the importance and a significant habitat area for ground nesting birds.

Incorporating 12.5 hectares (30 acres) on four sites (3, 4B, 8B and 10B) is a tick box exercise in adding biodiversity net gain even though the removal of habitat is considerably more and that removal can only have a negative impact on numbers.

The EPS survey identified 81 nesting sites across the order limits and concluded that the Skylarks within the order limits represent <1% of county populations. Accordingly this number was viewed as unlikely to be considered significant in the national and county context. It is also dependent on how thorough the survey was. The survey didn't include the Cable Route Corridors.

However with the accumulation of schemes across the region, in particular the local area, eventually the detrimental impact will itself accumulate and the impact should be considered on a cumulative basis and not site by site or scheme by scheme.

If the same opinion of 'insignificant impact' was concluded at each scheme, by only looking on a scheme by scheme basis, then eventually the accumulative impact becomes significant but it will be too late. Each small impact adds up.

Starlings: Wintering birds like the **Starling** roost annually at Wood Green Common apart for the year when the bypass was being constructed and they moved on (2024-2025). This shows the disruption a significant construction scheme can have on these red listed birds and others too.

They can be seen in several locations including across Site 7 and murmurate in a spectacular display at sunset before dropping into reed beds and roosts, rising again at sunrise. The winter of 2025-2026 saw a return to Wood Green but not the full numbers of pre bypass construction.

Turtle Doves: have been seen on Sub-site 7A whilst **Song Thrushes** (amber listed) and **Mistle Thrushes** (red listed) return annually across Site 7.

Fieldfares (red listed) and **Redwings (amber listed) :** are in abundance across the winter fields of the scheme and overnight in flocks in the trees of the small corpses and significant hedgerows across Site 7 and across the Scheme. Removal or disturbance of significant hedgerow across the Order Limits during the construction will have a serious detrimental effect to these struggling birds.

Otters: were reported as not being present surrounding the order limits yet there are known breeding family units in the Starston Beck and Hempnall Beck which are within the order limits as well as in the Tas.

Missing private water supply surveys and consultation?

Environmental Impact Assessment conducted by East Pye Solar failed to survey sufficiently the private water supplies for properties surrounding site 7.

In addition to private water supplies, most properties have **private sewage systems** such as septic tanks and treatment plants and these **have not been assessed at all.**

Impact will be significantly affected primarily through:

- increased flood risk - site 7B is in flood zone 3;

- altered surface water drainage;

Solar panels increase the concentration of rainwater that drains off them, increasing the speed and volume of runoff in the spaces in between rows. Run-off has been observed to appear in channels on the ground as distribution of water changes to an unnatural fall. This can lead to **soil erosion and water logging (**Sciencedirect**), potentially overloading or damaging existing land drainage systems that private sewage systems rely on. This should be considered a public health issue.**

Soil compaction during construction, operation, replacement and decommissioning reduces the grounds permeability which could impact the functionality of soakaways especially if not managed.

Risk of **sediment or pollutants** entering the system as well as affecting the functionality of the system is a significant risk to public health and ecology.



Noise

No noise assessments have been carried out on Cable Route Corridors including the internal haul road across Site 7, trenching, HDD and AIL and HGV routes.

The Applicant has considered the NSR to include CRC.

Utilities

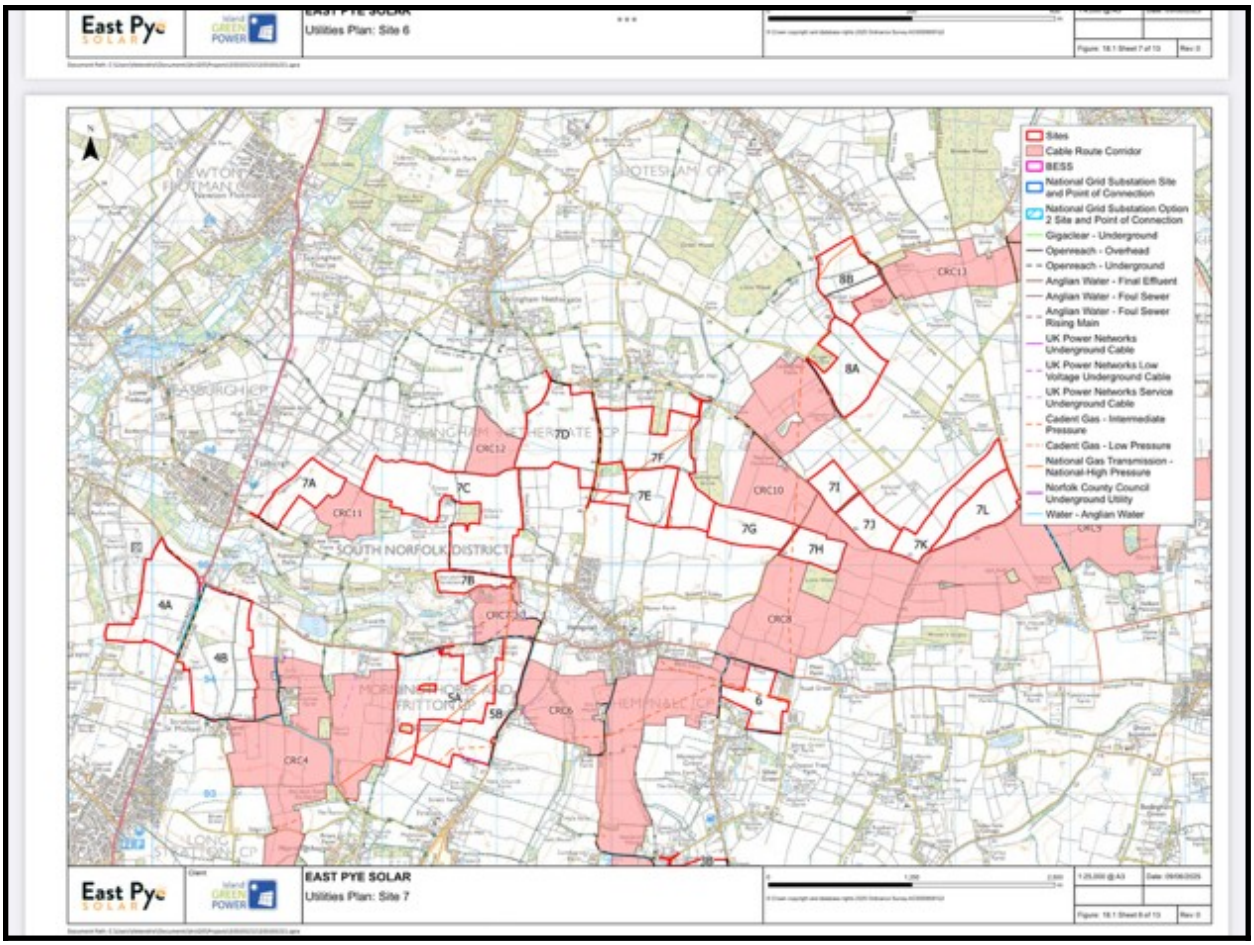
Site 7 has multiple utilities running along the boundary edges, road side verges and across sites including underground cabling as well as overhead power lines.

These have not been accessed nor mapped.

No mapping or assessment has been carried out on Cable Route Corridors

With limited Broadband connectivity, rural communities rely on satellite services like Starlink. Many mobile phone providers are now abandoning new masts due to the long planning process and offering back up signal via Satelitte.

The Scheme includes extensive power conversion equipment, BESS installations and multiple high-voltage substations. The Environmental Statement should clarify whether electromagnetic emissions have been assessed for compatibility with modern satellite broadband services operating in Ku- and Ka-band frequencies, including user terminals located within the nearby rural properties, together with any proposed monitoring and complaint resolution procedures should interference be reported during operation.



Water for Cleaning Panels

Where's the water coming from?

East Pye Solar will be using wheel washing amenities without stating how much water will be required and where the water is coming from and where the water will go afterwards. Runoff into the waterways and ditches, especially in the vicinity of the Tas tributaries, is of concern for pollution.

However the real question is water for the panel cleaning.

East Pye Solar will require 7,136 cubic meters or 7,136,000 litres (the equivalent to 2.85 Olympic-sized swimming pools)

East Pye states they will clean by using water only.

De-ionised water would be transported to the Order Limits by tanker. It doesn't state the size of the tanker nor how many journeys that will be so looking at a tanker from 10,000 litres to

40,000 litres that would equate to **714 @ 10,000 litres to 179 tankers for 40,000 litres which is 1428 to 358 two-way journeys,** no doubt all using fossil fuel.

The di-ionising water process also requires more energy. Has this been included in the impact of the Scheme?

Anglian Water hasn't agreed access to supply, so where will the water for cleaning come from?

Assuming all water companies will also be protecting supply to avoid the scenario of Cleve Hill Solar in Kent using local supply from standpipes and leaving residents with no water at all, **how can this water volume be achieved**? Add this to the accumulative impact of other Schemes across the region and the water requirements will be huge and hasn't been addressed in any of the documents.

East Pye Solar documents (The Scheme APP/6.1.4) state that due to the *'wet UK climate, Solar PV Panels are largely self-cleaning and determination in supply due to dust or dirt is generally low. Yet the requirement and frequency of cleaning the panels is due to the build-up of dust and dirt which depends on specific conditions. For example, the presence of fine dust emitters such as quarries, agricultural operations (harvesting) and nearby woodlands can all impact the level of dust deposition.'*

With the expansion of the quarry off the B1527 between Site 4B and 5A as well as the area being predominantly agricultural (crop farming) as well as small and larger wooded areas, the chance of dust deposition has to be considered very high. If I didn't clean my windows for two months (which are vertical) they would be filthy from dust off the fields and trees, bird poo and insect impact or spiders webs.

The documents state, *'the main factor influencing cleaning requirements in the UK is lichen growth, which is also influenced by site and climate factor*s.'

Lichens grow on solar panels through symbiotic relationship between algae and fungi in a 3-stage process:

- **Initial Algae Bloom:** Moisture trapped along the lower edges of panel frames, combined with sunlight and organic debris (or nitrogen-rich bird droppings), allows algae to form a slimy, green layer.
- **Symbiotic Bond**: Once the algae is established, fungal spores take hold. The fungus feeds off the sugars produced by the algae and, in return, locks onto the microscopic texture of the glass.

- **Hardening**: The fungus acts as a natural glue, anchoring the composite organism tightly to the panel surface. It then slowly spreads across the glass, feeding on environmental nutrients and carbon dioxide.

Why It's a Problem for Solar Panels

- **Reduced Output**: Lichen heavily shades the underlying photovoltaic cells. Studies show that a severe infestation can reduce energy output by 15–25%, even on sunny days.
- **Permanent Damage:** As the fungus grows, it acts corrosively and can permanently etch or scratch protective anti-reflective coatings on the glass.
- **Hot Spots:** By completely blocking individual solar cells, lichen forces the surrounding functional cells to work harder to bypass the blockage. This generates excess heat, which can permanently damage the panel

Risk Factors for Lichen Growth

Lichen needs water and sunlight, both of which solar arrays are exposed to. Growth is accelerated by nutrients such as nitrogen and ammonia:

Bird droppings are rich in nitrogen, which is fuel for lichen growth. If birds perch at the top of the panels, rain can dissolve any droppings, run down to the bottom edge and feed algae if present.

Oak trees have been linked to an increase in lichens on modules near them within solar farms. This is likely due to rain falling through the canopy, depositing nutrient-rich bird droppings and aphids' sticky honeydew. The trees also increase local humidity, creating more favourable conditions for algae and lichens to grow. What’s less clear, as yet, is why lichen growth seems to be so much greater close to oak than any other tree species.

Farms - particularly dairy, poultry and grain stores - contribute to high local levels of nitrogen and ammonia in the air, both of which fuel lichen growth. Cattle produce a lot of ammonia emissions around where the animals are housed, and so can poultry, especially in moist conditions. Crop spraying can catch in the wind and blow liquid or gaseous nitrogen onto nearby solar panels. Similarly, fertilisers can incur a spread of nitrogen and ammonia quite a distance.

Norfolk is the perfect climate for lichen growth as the climate is relatively mild and damp. All the components to grow lichen are readily available across the Order Limits.

The area is surrounded by poultry, beef and pig farms. Also, as a large crop area, grain stores and mills are located within the Order Limits. Organic matter (muck) spreading is normal practice across all arable fields.

Norfolk is a major oak tree area with the English Oak serving as the most common broadleaf tree species in the county. The Norfolk Landscape Tree Study found that the oak is the dominant deciduous tree in Norfolk's woodlands and can be found growing in more than 50% of the county's hedgerows and a major habitat for the region's abundance of birds.

'The requirement for cleaning due to loss of output is balanced against the cost of the cleaning operation. East Pye Solar believes that some sites can operate ***without*** *the need to be cleaned, whereas others require cleaning* ***annually****.'*

It won't be known until the Scheme is operational about the need for cleaning so, *on a worse case* assessment is assumed as a two-year cycle, although the documents make it unclear if that is the whole site.

However, what about those that require cleaning more regularly or the worst case is underestimated? All sites are surrounded by birds, oak trees and farming whilst others have quarries too. The additional impact of those next to main and busy roads like the A140 and B1527 with dust, dirt and debris, will increase.

Operational Waste

Site waste would primarily be general (Household Type) from staff visiting. Although it states in the documents it will be segregated for disposal it does not state where it will be disposed of nor the impact to local services.

Waste components such as damaged PV Panels, batteries, cables, connectors and mounting structures would be removed and recycled as far as possible.

However East Pye Solar doesn't state where they will be disposed of and as solar panels are classified as hazardous WEEE (Waste Electrical and Electronic Equipment) they cannot be legally sent to landfills in the UK. Compliant disposal requires using WEEE-approved facilities to recover valuable materials like aluminium, glass and silicon.

Panels contain toxic materials which require specialised treatment.

Industrial-sized solar would require an Environment Agency permitted Approved Authorised Treatment Facility (AATF) which would need to be able to cope with not just decommissioning but also the replacement of panels several times across the scheme.

Operational Staff

Throughout the consultation period the community were being told the Scheme will create **'local jobs for local people'.**

East Pye documents state **'no permanent on-site staff will be required to operate the Scheme**. There will be limited staff facilities located in the control room associated with the 132kV and 400kV Substations. Equipment for monitoring the Sites will be located in the Relay and Control Room. This would typically be **accessed remotely,** it would be available for occasional physical access during routine visits.'

Workers will be required for full solar replacement (129-240) which will be the construction team that are shipped about.

Otherwise it will be ad hoc limited maintenance roles including cleaning and up to 5 visits a month.

So local people were being told inaccurate information as a local benefit to the Scheme.

Yet multiple jobs will be lost across the area in agriculture and the agricultural supply chain, hospitality, tourism.

Views from Listed Properties

Site 7 is bordered by many listed properties of Grade I, Grade II* and Grade II.

All have uninterrupted views across open countryside which will be removed and replaced by views of industrialisation; panels, substation, security fencing, CCTV etc.

Landscaping across the scheme will take at least 15 years to become established but the landscape itself changes the character of the open countryside to one of enclosure, out of character and 'alien'.

Natural landscape includes significant hedging and individual trees dotted around. The artificial landscaping will create a thick, unnatural appearance with an emphasis on screening.

See Chapter 7.3 Visual Effects on Residents and Settlements for more detail.

Visual Assessment Tables

The Visibility Assessment Tables are subjective.

In the same way the person responsible for Landscaping considered, at the Zoom consultation, that the 400kV substation on Site 5 can't be hidden, even after 15yrs, as "it's too tall, but what's wrong with a substation on a field anyway?"

Visibility is considered 'minor/negligible even if the view is changed significantly. For example, VL10 South West of A140/B1527 roundabout looking across sub-site 4B.

'The substation and solar arrays would remain a clearly noticeable change in the view of the location however influenced by man-made structures like highways, road signs and the roundabout which would reduce the overall effect somewhat'.

Screening would not be performing at Year 1 however by Year 15 it was considered (if successfully established) that 'visibility of the elements within site 7 is predicted to reduce.'

'However, glimpses of solar at maximum height (4.5m) and the 132kV substation (13m) would remain possible resulting in perceptible change from baseline conditions.'

Yet this is considered minor/negligible.

It is also worth stating at this point that screening would equally change the baseline conditions significantly by creating a feeling of enclosure as opposed to the open vistas and character of the landscape as it is today.

Driving down the highway between site 4A and 4B for example never makes me feel the view is insignificant due to the highway, signs and roundabout. It's open and green/yellow and beautiful. An example of how East Pye Solar considers local countryside as insignificant in order to fit the scheme.



Sub-Site 4B Spring 2026



View across Sub-site 4B January afternoon 2026 with man-made structures



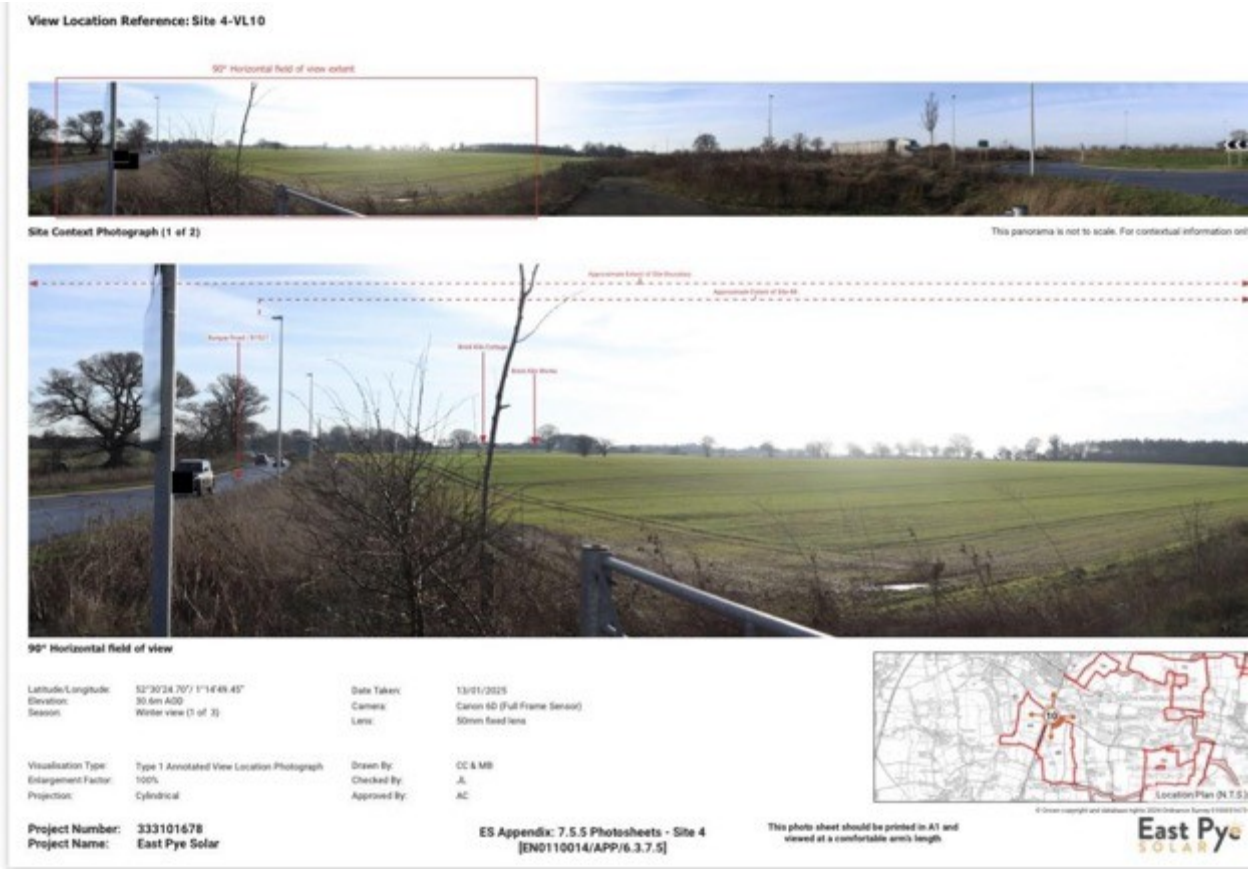
View across Sub-site 4B January afternoon 2026 with man-made structures



View across Sub-site 4B January 2026 with man-made structures



View across Sub-Site 4B January 2026 with man-made structures



East Pye Own documents show open views across sub-site 4B

Chapter 3: Site and Surroundings

Site 7 is the largest of all sites with 12 Sub-sites covering five parishes of Tasburgh, Hempnall. Saxlingham, Shotesham, and Woodton.

The total internal area of Site 7 is 2140 acres and includes solar fields, cable route corridors, a 132kV substation as well as agricultural fields that will continue to be farmed.

The area of Site 7 is an important wildlife habitat and of ecological significance.

The fields are mainly BMV Grade 1-3a growing a combination of cereal crops



Saxlingham - East | Solar sites (shaded in red) Cable Route Corridors (shaded in yellow)



Part of Saxlingham Green Solar Site - (Shaded in Red) Many footpaths directly affected





Solar Sites: 5B, 6, 7B, 7C, 7D, 7E, 7F, 7G, 7H.
CRC: 6, 7, 8, 11, 12

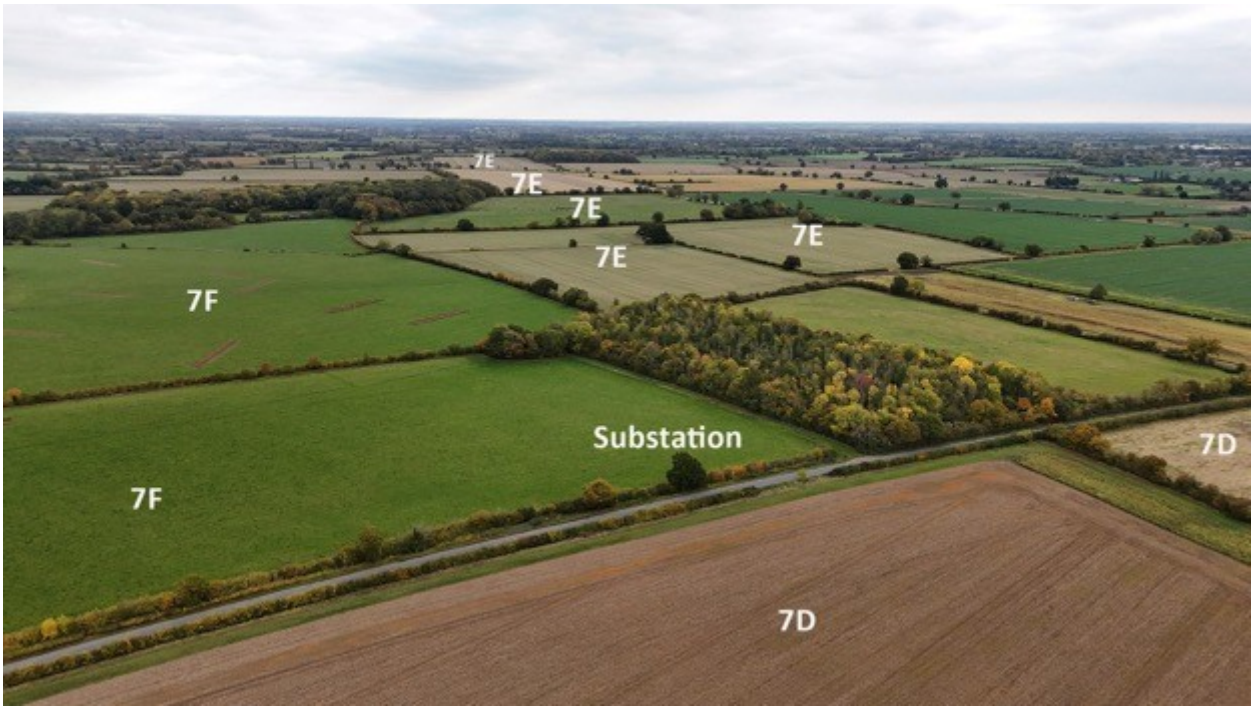
Hempnall - North West
(Looking East)





The visibility of Site 7 can be seen for miles in all directions. The boundary of Sub-site 7C is within metres of Grove Farmhouse and Wood Farmhouse.


7B
7C
7D
7D
7D


7E
7E
7E
7E
7E
7F
Substation
7D
7F
7D



Wood Farm and Grove Farm surrounded by Sub-site 7C will be within metres of the proposed with open views on all sides replaced by 4.5m high banks of tracking panels, security fencing, CCTV.


7E
7E
7E
7E
7E
7F
7F
7F
7D
7D
7D
7D


7C
7C
7C
7D
7D


7G
7F
7E
7E
7D
7D
7D
7C



Fairstead Lane west looking towards Tilla Farmshop which will be surrounded and access to their business will be seriously affected



Limetree Farm is a Grade II listed farmhouse with its own private drinking water from a borehole which hasn’t been surveyed.



Fairstead Lane is a single track lane with very few passing points. It is mainly used for access by farm vehicles, visitors to Tilla Farm Shop and the few homes along the route.

Both sides of Fairstead Lane are bordered by significant hedgerow and mature trees.



Sub-site 7A sloping towards the south-west boundary and an unnamed waterway that flows towards the Hempnall Beck, a tributary of the river Tas. Growing spring barley 2026



Chestnut Loke is a small track off Fairstead Lane that takes you to Keepers Cottage and the Hempnall Beck



Boudicca Way traverses Site 7, in particular at Fairstead Lane, and is a popular long distance hiking trail between Norwich and Diss which celebrates Queen Boudicca of the ancient Iceni Tribe which was located a few miles away at Caistor St Edmund.

Boudicca Way passes through the rural gently undulating countryside of South Norfolk and the Waveney Valley using Public Rights of Way and quiet country roads where visitors can find unusual wildlife and flora.

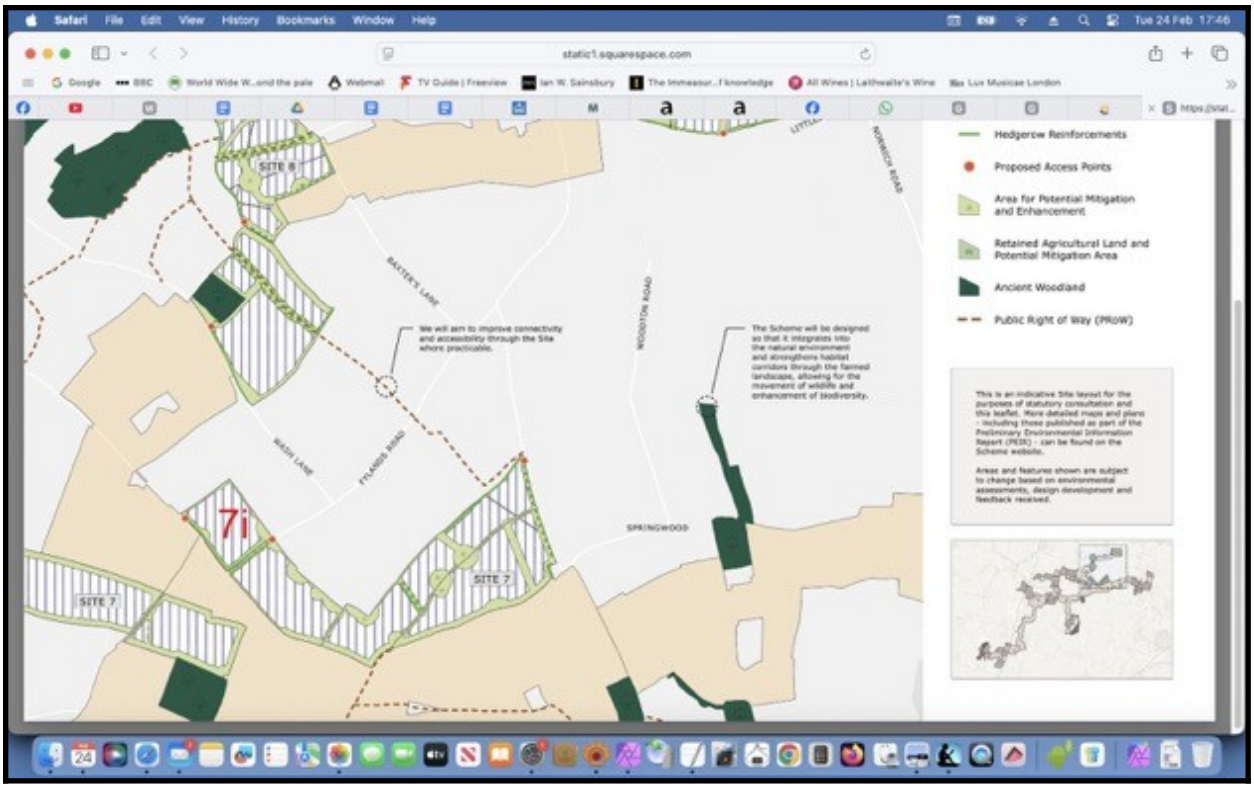
Along the way the trail passes picturesque villages such as Shotesham, Saxlingham Nethergate and Pulham Market



Wood Farm will be surrounded by Sub-Site 7C on three sides and will overlook Sub-site 7B

Sub-Site 7I

A square field on the east boundary of Site 7 and within the parish of Shotesham



EPS map showing Sub-site 7I



View from north east corner of Sub-site 7I, looking north (approx)



View from north east corner of Sub-site 7I, looking west (approx)



View across Sub-site 7I from the north west corner, looking north west (approx) note waterlogged ground



View from the south west corner of Sun-Site 7I looking east (approx)



View from the south west corner of Sun-site7I, looking north east (approx)



View from the south west corner of Sub-site 7I, looking north (approx)



View from the north east corner of Sub-site 7I, looking south (approx)



View from the north east corner of Sub-site 7I, looking east (approx)



The lane along the southern edge of Sub-site7I



The lane along the western edge of Sub-site 7I

Saxlingham Nethergate

Sub-site 7F will host the 132kV substation which is in sight of listed buildings on the Green.

The presence of high pressure gas main represents associated severe ecological and hydrological safety risks.

The field drainage pipes across all land parcels and under unclassified access roads for AILs are unsuitable for heavy vehicles.

Sub-sites 7D and 7F adjoin Saxlingham Green Conservation Area - a designated locality of special architectural and historic interest; protected by local authorities to preserve or enhance its unique character and appearance. The Conservation Area contains ten listed buildings and the proposed development would introduce dominant, permanent infrastructure wholly incompatible with this character. The proposed AIL route has a further 17 listed buildings close to the road.

Saxlingham Green is a small settlement located off the minor route between Saxlingham Nethergate and Hempnall to the south. The unclassified road which bisects The Green eventually links with other minor roads linking the settlement with Hempnall to the south and Brooke to the north-east.

Section 72 of Planning (Listed Buildings and Conservation Areas) Act 1990 imposes a duty:

> *"special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area."*

The Saxlingham Green conservation area was originally designated in 1973. There is an adjacent SSSI that includes areas of Woodland Priority Habitat Network and Woodland Improvement of high special priority.

Natural character dominates with the buildings being secondary to it:

- There are a number of fine historic buildings dispersed within the area;
- Situated on "plateau" site to the south east of Saxlingham Nethergate;
- Linked to surrounding countryside by a matrix of footpaths and bridleways;
- Much of The Green is enclosed by groups of mature trees together with hedgerows;
- The Green follows the line of the road but is made up of separate areas which provide a series of changing views and vistas.

Section 66(1) of The Planning (Listed Buildings and Conservation Areas) Act 1990 imposes a duty on local authorities, or, as the case may be, the Secretary of State, when considering applications that affect a listed building or its setting, to:

"have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses".

The Green is surrounded by a network of footpaths and the land parcel 7D and 7F would be severely adversely affected by the development, as shown below:



Part of Saxlingham Green Solar Site - (Shaded in Red) Many footpaths directly affected

A development of this nature will create a significantly high amount of construction traffic using rural roads and rights of way. This construction traffic will bring high disruption and give rise to a very real danger to pedestrians and riders of horses along with other rural road users, demonstrating that single track rural lanes are fundamentally unsuitable for sustained use by heavy delivery vehicles.
In a recent British Horse Society article, it states drivers pass too quickly and closely and cause 81% of equine related incidents.

Fencing: The security fencing proposed is normally metal palisade and brings with it safety implications. Its top is likely to be at or below chest height for equestrian riders and will result in injury if a rider is thrown from the horse.
Fencing can be intimidating, combined with a narrow corridor, creating a conflict for Bridleway and By-way users (horse riders, dog walkers, pedestrians, cyclists).
Being narrow and confined removes an escape route from a threat which would be capable on an open field.
Although hedges may be proposed these take years to establish. The fencing is intrusive and will also create unpleasant alleyways.

Saxlingham Green is home to a number of ancient trees which line the lane on the grass verges that will be disturbed greatly by large numbers of heavy vehicles. The trees overhang the road.

- At least 11 ancient oak trees, all over 500 years old
- 14 horse chestnut trees at least 200 hundred years old

- 2 lime trees over 200 hundred years old



Above photo of the entrance to Saxlingham Green looking west to the village. A line of ancient Oak trees. Grid ref: TM2378 9660



Above photo of the boundary of 7F taken from the footpath looking towards Woods End Cottage on the Saxlingham Green. TM2413 9636

Chapter 4: Reasonable Alternatives and Design Evolution

Site 7 is the largest of all sites within the Order Limits consisting of 12 Sub-sites of mainly BMV Grade 1-3a agricultural land growing a mixture of crops with some grazing.

The area is of high significance for ecology, tranquility and heritage.

Site 7 incorporates five villages and parishes with Conservation Areas, multiple listed buildings and much heritage.

Some changes have been made to the Site mainly in the way of transport routes and internal haul roads.

The access routes have been changed to using a non classified road through a network of small villages or holding compounds impacting major transport routes.

It's impossible to accurately trace the route as the maps and Access points aren't clear however there appears to be some error to Site 7G-H.

Site 7A-F - using Hempnall Footpath 2

- using Access points A28, A29, A30, A40, A42
- From A140: south on Hempnall roundabout onto Site 4A via A19;
- Await call-foreward to site;
- Eastbound on Hempnall Roundabout to B1527;
- Northbound on The Krons;
- Westbound on on Fairstead Lane;
- North onto A29/A31;
- Internal haul route to Sites 7A-F;
- Cross Broaden Lane via A40 for access to 7E-F;
- FOr southern portion of Site 7D, southbound on Broaden Lane and west onto A42;
- Depart on same route in reverse.

Site 7G-H

- Using Access points A45, A57;
- From B1332, westbound on B1527;
- Northbound on Shotesham Road and Woodton Road;
- West onto A57;
- Internal haul route through 7K and 7J;
- Exit on A45;
- Southwest on Fylands Road;
- Busseys Loke east/west on A44
- Depart on same route in reverse.

Site 7I-J

- Using Access points A45, A57;
- From B1332, westbound on B1527;
- Northbound on Shotesham Road and Woodton Road;
- West onto A57;
- Internal haul route through 7K and 7J;
- Cross on A45 for access to 7I;
- Depart on same route in reverse.

Site 7K-L

- Access points A57, A58;
- From B1332, westbound on B1527;
- Northbound on Shotesham Road and Woodton Road;
- West onto A57/A58;
- Depart on same route in reverse.

The proposal does not have adequate access to, or is remote from, the HGV Route Hierarchy, as classified in Highway Authority's Route Hierarchy published by Norfolk County Council.

The proposal, if permitted, would be likely to give rise to conditions detrimental to safe sustainable development in transport terms.

Two-way movement of traffic will fundamentally rely on a rural lane network that is not designed to accommodate this level of construction traffic or large vehicles.

In most places it will be impossible for two vehicles to pass. Video footage has already shown this on Church Hill in Saxlingham Nethergate. There are also significant concerns regarding the safety of vulnerable road users, including pedestrians, cyclists, and horse riders. The unclassified roads serving sites 7D and 7F are considered to be inadequate to serve the development proposed, by reason of their restricted width, lack of passing provision, road structure and underlying drainage pipes etc., and impact on foundations of nearby dwellings. The proposal, if permitted, would be likely to give rise to conditions detrimental to highway safety, in addition to the ability of the HGVs to pass. The current proposals do not sufficiently address the needs of all vulnerable road users along the proposed route.The AIL haulage units are wider than much of the current road on the route, higher than much of the overhanging tree vegetation and too long to take the many turns without considerable unspecified verge, hedgerow and tree removal and ditch filling. And they are likely to cause untold damage to verges, bridges, the roads themselves and drains and other services running beneath them.

The proposed new route and how East Pye intends to make it suitable for its purposes is very lacking in any detail, or signs of any research, from the company. But it is apparent to anyone who uses it that it is completely unsuitable for the vehicles they are proposing to use.

The new AIL haulage route plans to pass through the narrow road of Saxlingham Nethergate village. The houses, many grade II listed with ancient walls and railing are close to the road, with no possible means of a wide load passing through.



Narrow road through Saxlingham Nethergate. Above photo of The Old School, a Grade II listed dwelling on a narrow bend at the bottom of Church Hill. Grid ref: TM23009710

In addition, the AIL route goes through the conservation area of the village which includes the school (requiring pavement access for children) the War Memorial (which will be impacted) and a number of vulnerable buildings already close to the road edge but, with proposed unspecified verge and pavement removal/reduction, will be made even more vulnerable to vibration and other damage. The drone picture below shows narrow road, listed buildings on either side. The trees on

the left are behind a grade II listed high wall. (Courtesy of Lockwood Chartered Surveyors).



The photo below is a close up of an ancient brick wall on the roadside of the proposed AIL route.



On the Green, Saxlingham Hall is a grade II listed residential nursing home on the green and patients are often seen being taken out in wheel chairs along the lane. This would be impossible if heavy goods vehicles were using this lane to access field parcel 7F and beyond for the cable corridors. The peace and tranquility that patients and their families currently enjoy would be shattered. The road is of poor quality and not designed for heavy use and would not withstand constant heavy traffic. Boudicca Way runs along the road on the green and is used by ramblers and cyclists. This road is less than 4 metres wide and often with high banks making it difficult for two vehicles to pass each other.

The drone picture below highlights the rurality and narrow lane on Saxlingham Green (Courtesy of Lockwood Chartered Surveyors).



The photograph below is looking towards Grade II listed dwelling Holly Cottage (226637) on Saxlingham Green and the area where road widening is proposed and a high pressure gas pipe is situated. Grid ref: TM2471 9647



7A access was part of the targeted consultation October 2025 yet has now been changed yet access is not clear in the documents.

Chapter 5: Scheme Description for this land parcel

What Site 7 can expect if plans are passed:

Overview

- Solar array panels - 4.5m high tracking
- Mounting structures
- Cabling
- Cable Corridor
- Conversion Units compounds
- 132kV substation
- Construction Compound (unsure are not shown on current plans but where will it be?)
- Interconnecting cables
- Security Fences
- CCTV
- Lighting
- Access points leading to removal of vegetation for visibility to 250m
- Panel Change
- Panel Cleaning
- Operation
- Maintenance of SIte
- Decommisioning
- Closure of Footpaths

PV PANELS

There are currently two options for the Mounting Structures which are being considered for the scheme which are described below.

Solar PV Arrays and Mounting Structure

The Scheme will use Single-Axis 4.5m high Tracker Panels (Option A) and/ or Fixed Panels (Option B). The parameters for each of these options are described below.

Option A: Single-Axis Tracker Panels

- **Site 7 will have 4.5m Single-Axis tracker Panels**
- PV Panels which are fixed to the Mounting Structure;
- Orientated north to south;
- They would operate between 60 degrees from the horizontal (facing east in the morning) moving toward 0 degrees (horizontal) at midday, and up to 60 degrees from the horizontal (facing west in the evening);

- The modules would track from east to west throughout the day and would return to their resting position 60 degrees (facing east) over night noting that at some point during the night will be 0 degrees (horizontal) and detrimental to foraging bats mistaking panels as water;
- The panels would face multiple highways during the day, east and west, with a **risk of glint and glare being significant;**
- The panels will be visible from the A140 and could be at risk of glint and glare when facing west;
- **The PV Panel would have a maximum height of 4.5m**



Image 1 Tracker Panels



Example of a 4.5m high tracking panel next to a person 1.65m tall. Average car is 1.40cm to 1.60cm

Option B: Fixed South Facing PV Arrays

PV panels that face south and are mounted to fixed Mounting Structures in an east/west configuration and would be installed between 15 and 35 degrees to the horizontal facing south to optimise daylight absorption. The PV Panel would have a maximum height of 3.5m



It's worth noting at this point that a small solar scheme at Hall Farm that sits on the west boundary to site 4A has fixed panels sited facing south and offers glint and glare when the sun catches them at the end of the day.

The same is the case for the Bloys Grove scheme at Mulbarton further up the A140 which is also fixed panels facing south and offers glint and glare distraction as the sun is starting to set.





Hall Farm, 20/5/2026 at 20:22 light cloud



Bloys Grove, Mulbarton March 2026 at 5.40pm

SOLAR PV MOUNTING STRUCTURE

The metal frames upon which the PV Panels will be mounted will be **pile driven or screw mounted into the ground to maximum depth of 4m**, subject to ground conditions. Please see

ChapterGround Conditions for Site 7 as they vary and a ‘one size fits all’ doesn’t work for this vast Site.

The option to install concrete blocks as ballast may be considered, avoiding the need for driven and screw anchored installation.

The mounting frames would be made of either anodised aluminium alloy or galvanized steel.

CABLING

- Low voltage distribution cabling between the solar PV Panels and to the Conversion Unit compounds;
- Fixed to the Mounting Structure, and then underground between Mounting Structures and the Conversion Unit compounds.

High voltage cables are required between the Conversion Unit compounds, BESS and the 400kV Substation. Each site will connect to another site via the cable corridors.

CABLE CORRIDOR and INTERNAL HAUL ROAD

The following activities would be required to construct the interconnecting Cables Grid Connection Cables:

- Site preparation and appropriate surveys;
- Haul road construction;
- Excavation would be undertaken using appropriate sized tracked excavator and carried out in layers;
- Top soil would be segregated and stored on-site to be reused;
- The trench would be cleared and bottomed out, ensuring no hard protrusions;
- Sand bedding would be installed at the bottom of the trench;
- Cable installation will be conducted once joint bay locations have been established. However, it is not expected that cable installation would be continuous. Cables would be installed in groups or sections to ensure that works are completed in the most efficient manner practicable.

CONVERSION UNITS

Conversion Unit, a collective term used for the combination of electrical components including inverters, transformers and switchgear, used to manage the electricity generated by the PV Panels. The components may be housed together within a container on each site.

A container would measure approximately 3.5m (H) x 5m (W) x 15m (L).

Or the alternative option is for the individual electrical components to be housed in standalone cabinets. If in stand alone cabinets, the Conversion Unit compound would be surrounded by 3m high palisade fencing, with integrated gates for access. The compound will be leveled and covered in a layer of gravel of 1m.

The containers would be mounted on adjustable legs on an area of concrete hardstanding.

The configuration of equipment within the Conversion Unit compounds may vary however will consist of:

- Inverters
- Transformers
- Switchgears

Inverters

There are two options for inverters; string inverters or inverters located within a conversion unit compound.

String inverters are small enough to be mounted underneath or behind the PV Panels on the Mounting Structures and are typically 1.5m in length and 0.5m in depth by 1m high.

Inverters located within the Conversion Unit compound would either be standalone cabinets or housed within the container. The maximum size of a stand alone inverter would be **6m x 2.4m with a maximum height of 2.9m.**



Image 3 String Inverter



Image 4 Central Inverter Unit

Transformers

Required to increase and decrease the voltage of electricity generated by the solar PV arrays.

Should a standalone transformer option be required, the maximum dimensions would be **43m by 65m with a maximum height of 6.5m**

Switchgears

Switchgears are the combination of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electric equipment.

Should a standalone switchgear be required, the maximum dimensions would be **6.5m x 9m with a maximum height of 4m.**

SUBSTATION

A 132kV substation is planned for sub-sire 7F adjacent.

These substations are comprised of electrical infrastructure such as the Transformers, Switchgear and control equipment required to facilitate the export of electricity. The transformers associated with the 132kV Substations will either be single or dual.

Maximum **compound** parameters for site 7F:

- Maximum area of compound o.5 hectare or 1.236 acres;
- Maximum height: 7m to the top of busbars;
- Relay and Control Rooms: 7m by 19m and maximum height of 4.2m;
- **Maximum height: 6.5m to top of busbars**

The compound will be surrounded by palisade fencing to a height of 3m.



Image 132/33kV Substation (single transformer) East Pye Solar

INTERCONNECTING CABLES WITHIN THE SITES



The solar PV arrays will be connected to the 132kV substations via interconnecting cables. The cables may be installed underground or within casing attached to the mounting structures.

FENCING AND SECURITY

Perimeter fencing would be in place throughout the Sites surrounding the solar PV arrays and will comprise deer wire mesh with wooden posts at a **maximum height of 2.5m.**

Pole-mounted, internal-facing CCTV systems will be installed around the perimeter of sites on galvanized steel poles with a **maximum height of 3m**.

LIGHTING

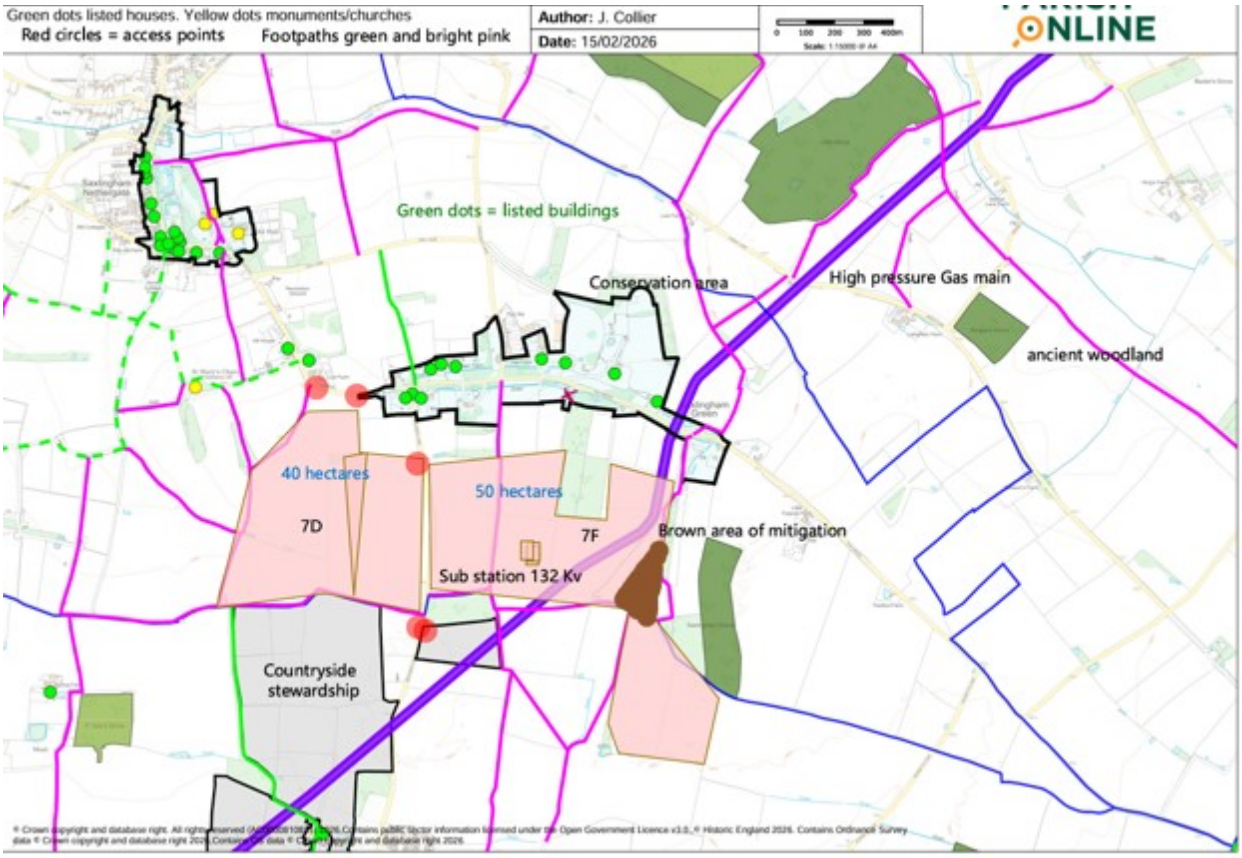
Motion-sensing security lighting will be provided within the substation, conversion unit compounds, to be used for maintenance and security purposes. In the event of an emergency, lighting will also be provided.

Temporary on-site lighting will be required during construction to enable safe working hours of darkness within the agreed working hours.

This lighting will be suitably designed as far as reasonably practicable so as to not cause nuisance and would accord with good practice measures to minimise light spill and glare. However of course this cannot be guaranteed especially when in the countryside there is no artificial lighting outside of the minimum offered in towns and villages.

SITE ACCESS

Access points into each Site or sub-Site will be designed to accommodate an articulated HGV with a maximum length of 16.5m. Visibility splays of 2.4m and 215m are required. In addition to the HGVs, Articulated Indivisible Loads (AIL) of up to 36.5m long will require additional consideration



Land Parcel 7D and 7F have a total 90 hectares of solar panel with an unspecified number of inverters plus a 132kV substation which could measure up to 63x68 m of footprint and at least 6.5 metres high, totally dominating the landscape including the views from listed buildings on The Green. These land parcels are surrounded on all sides and dissected by numerous public footpaths including the Boudica Way. In addition, a high pressure gas mains pipe dissects 7F.



Substation on land parcel 7F

A 132kV Substation, covering 0.75 hectares, is proposed for the southern edge of Land Parcel 7F, bordered to the west by PRoW SN-FP10 and to the south by PRoW SN-FP27. Underground, a high-pressure National Gas Main passes its south eastern corner.

The choice of location was deliberate - 'Substations 1 (4B) and 2 (7F) both utilise the corners of fields. The site selection process has considered land quality, with the choice of location balancing land quality with other operational, landscape and access considerations' 15.8.47

The land within 7F is BMV grade 2, principally clay and subject to flooding. The surrounding landscape is agricultural, quiet, dark and tranquil, bordered to the north by Saxlingham Green, a heritage-rich conservation area, with numerous listed buildings. Access is planned from Broaden Lane (an un-lettered/numbered road) to the west and so a haul road capable of supporting an AIL vehicle carrying a transformer will need to be constructed across the western part of 7F to reach the substation. None of those factors would suggest this particular location to be in any way ideal, as is suggested above.

Some details have been provided about the 132kV substation on 7F:

- It will cover an area of 0.75 hectares, understood to be about the size of a football pitch.

- The compound will be surrounded by palisade fencing at a maximum height of 3m (9.84ft). There will be CCTV, on poles of 4.0 m (13ft) and lighting similar to street lighting.
- Also within the compound will be electrical infrastructure such as the Transformers, Switchgear and control equipment required to facilitate the export of electricity. 'The Transformers associated with the 132kV Substations will either be single or dual'
- The equipment will have a maximum height 7m (23ft) to the top of the busbars.

Concerns

Visually, the size and height and bulk of this construction would completely dominate the landscape. The substation would sit central to hundreds of repetitive 4.5m(14.75ft) black static or tilting solar panels, all surrounded by 2.5m (8ft) 'deer fencing', covering the remaining 50 hectares on 7F to the north, east and west and a further 40 hectares on 7D across a road to the west. Cumulatively, this is industrialisation on a huge scale all within view of properties along Saxlingham Green.

The substation will be lit 'the lighting of the Project Substations… would be in accordance with health and safety requirements, particularly around any emergency exits where there would be lighting, similar to street lighting that operates from dusk. All lighting would seek to limit any impact on sensitive receptors through the implementation of standard good practice measures'. 4.3.31

There will also be motion sensing lighting will be implemented in the … Project Substations and other critical electrical infrastructure to be used only for maintenance and security purposes. 4.3.32

So, although fields of solar panels do not need light, in the case of 7F there will be artificial light coming from the substation in an area where there has never been artificial light, dramatically creating light pollution in an area of particularly dark skies.

Apart from light pollution affecting the residents of Saxlingham Green and illuminating an industrial site, artificial light (and whatever minimisation/mitigation is implemented it will not, for obvious reasons, reduce this to nothing) will have a severe impact on the barbastelle bats that flourish in the area.

Natural England's 2024 Definition of Favourable Conservation Status for barbastelle makes clear that barbastelle are a vulnerable, light-shy Annex II species closely associated with broadleaved woodland, veteran and dead trees, riparian habitats, hedgerows and treelines; that they avoid artificially lit areas, depend on large, well-connected dark landscapes, and that there is currently no known proven mitigation or compensation for loss of barbastelle woodland roosting habitat over the short to medium term. Natural England further states that existing and potential roost sites should be protected from disturbance and development, and that artificial lighting fragments habitat and impairs connectivity between colonies.

This has not been properly addressed in the submission. Bat boxes, 'considered' under 4.3.21, are not a solution.

Noise and Vibration The appendix states that transformers generate a 100 Hz hum due to vibration of the transformer coil but then dismisses this as not significant. But this substation is based in a very quiet part of the scheme with little background noise and so any noise is likely to have more impact; in very low-background rural conditions, even moderate plant noise, fan noise, transformer hum, inverter noise, HDD activity, piling or construction traffic will be intrusive.

This has been pointed out by South Norfolk Council who have disputed the operational thresholds and acceptability case saying that operational noise should be at background level or below and that conclusions could not be assessed whilst details of the substation remain to be fixed.

In addition, bats are extremely sensitive to noise, not least construction noise, but also background noise which affects their echolocation abilities, foraging behaviours and social communication. This seems not to have been properly addressed in the submission.

Public rights of way will be affected The substation itself is bordered to the west and south by public rights of way and site 7F, in which it sits, is surrounded by a number of currently well used footpaths.

The construction process of the substation (and panels), along with the environment it creates is likely to deter purely recreational walkers and visitors from using footpaths, which in in any case, for safety reasons, will be either closed 'Medium -term' or 'Open but Managed' as a consequence of construction work and vehicle movements.

Once operational the combination of low noise from the transformer, inverters etc, which will be heard from footpaths running beside the substation, combined with the fencing and industrialisation of the landscape are likely to be a further deterrent but to all who have to use the paths – which include direct walking routes to the facilities in neighbouring Hempnall - the substation will dominate the view experience and degrade the experience.

Although mitigation planting is proposed it seems likely that the substation will remain visible from afar (footpaths Hp-FP3 and Hp-FP5) and near: 'At year 15 the proposed mitigation would be fully established and would screen *the majority* of the proposed elements. It is however likely that the substation would remain visible to some degree' (SN-FP27 Appendix 7.9: Public Rights of Way Visual Amenity Assessment)

The remnants of the substation may be left in situ after decommissioning. The submission provides two possibilities concerning what will happen to the base of substation at decommissioning, depending on how it has been constructed which, like many aspects of this scheme, has not yet been fully concluded.

'Depending on the ground conditions' the 132kV Project substations will have either a raft foundation or piles to a maximum depth of 10m below ground level with a 1m pile cap. 15.8.50

This structure may be permanent – ‘The works are likely to be temporary and reversible, which would be a ‘low magnitude impact’… ‘It is considered likely that the works will be long-term temporary and fully restorable, which would be ‘low magnitude effect’ ‘on resources of high, medium and low sensitivity … resulting in an effect of minor adverse significance. 15.8.49

Alternatively – ‘Taking a worst-case assessment, therefore, the impacts are treated as permanent. The permanent loss of 5.6 ha of BMV land would, in isolation, be an impact of low magnitude (Table 15.5) on resources of high, medium and low sensitivity (Table 15.4), resulting in an effect of minor adverse significance, (Table 15.6), which is not significant. 15.8.50

Comments

1/ There is Inconsistency in terminology in different chapters between ‘Project Substation’ and ‘Substation’. 7F is referred to as a Project Substation in ‘Agricultural Land’ (chapter 15) and ‘Noise and Vibration’ (chapter 12) and in other chapters as ‘Substation’ compared to others which are ‘Project Substations, eg Bess Project Substation.

2/ There seems to be no definitive description/specification of this individual substation: ‘Substations comprise electrical infrastructure such as the Transformers, Switchgear and control equipment required to facilitate the export of electricity. The Transformers associated with the 132kV Substations *will either be* single or dual’ (Substations (Work No. 3) 4.3.32)

There is also no definitive picture of what it will look like, other than maximum dimensions, and ‘*an example* of a 132kV substation is shown in image 4.8 below’ (Substations (Work No. 3) 4.3.32)

3/ Appendix 4.1 provides ‘illustrative technical information’ but surely at this stage it should be possible/required to accurately describe and state the specification all the major infrastructure including this particular substation stating exactly what it will look like in this particular setting, what it will contain, how it will be accessed and constructed and how much removal of existing trees and hedgerows will occur.

Otherwise how is it possible to measure or comment on visual impact, noise, safety, impact on the land and wildlife etc?

5/ The document also doesn’t make clear how long construction of this substation will take or whether it will happen in conjunction with other work in the vicinity, such as the construction of access roads, the construction of the work station on 7D, piling for the panels. This is Important because the sequence and conjunction of construction will have a major cumulative impact on noise, vibration, local road disruption etc in the local area.

6/ And, as a general point, the submission is often very hard to access (particularly the ‘Works’ section), navigate and understand. This scheme proposes a massive and widespread industrialisation of gentle and tranquil countryside that has little changed in centuries and there should be a major responsibility on the part of the applicant to provide transparent communication and clear documentation provided to the thousands of residents who be affected and who will have to live with the consequences of it being given the go ahead for generations to come.

7F is bordered by an ancient woodland (Saxlingham Grove) which is a designated SSSI and is a known Barbastelle bat maternity locality.

The land parcels are a mixture of grazing pasture and arable and are also currently under countryside stewardship subsidy.

The area has numerous long established hedgerows and mature boundary trees. Its topography is typically flat with far reaching views, therefore making the installations even more unsightly to nearby residents and walkers. No amount of mitigating hedgerow planting will reduce the visual impact for several decades. Even when the new hedgerows reach maturity, when tall enough to obscure the solar panels, the current open landscape will be transformed into compartmentalised sections and alleyways by the high security fencing and hedging.



A view over the meadows from the footpath along the boundary between Hempnall and Saxlingham east of Broaden Lane. All of these meadows (as far as the eye can see) would be covered by solar panels and these large meadows are merely a small part of the total scheme area.


7F



The green is lined with many ancient trees. The unclassified road measures between 3 and 3.5 metres wide. Above is a photo of a line of historically important Horse Chestnuts at least 200 years old. Grid ref: TM2451 9657

Saxlingham Nethergate 7D, 7F The construction of **permanent concrete substation infrastructure** on heavy clay soils creates a **direct and irreversible contamination pathway**.

Chapter 6: Climate Change

The EIA fails to provide a robust, site-specific assessment of the scheme's resilience to climate change and the potential for the development itself to exacerbate local climate risks.

There is no quantification or modelling of how the extensive area of solar panels may increase surface water runoff, exacerbate flash flooding, or alter groundwater recharge, particularly in light of climate projections for more intense rainfall events.

Nor does the EIA consider whether the introduction of large-scale hard infrastructure could lead to localised overheating, changes in wind patterns, or drought vulnerability affecting adjacent farmland and communities.

The absence of a detailed local climate risk assessment and adaptation strategy falls short of best practice and EN-1 requirements for demonstrating that both the project and surrounding communities will not be made more vulnerable as a result of the development.

The heavy clay soils and flat topography make much of Plot 7 prone to surface water flooding.

Revised climate goals and an accelerated drive to deliver clean power by 2030 in the UK have served to advance larger solar farm expansion as a relatively risk-free straightforward element in the climate change portfolio supporting mitigation by producing low-carbon energy (Department for Energy Security & Net Zero, 2025).

However, solar farms change soil/plant interactions which will counteract some of its climate mitigation effects due to carbon and nitrogen losses to the atmosphere (Luuk Scholten, 2025). Indeed, there is an increasing body of evidence that large-scale developments, such as that proposed here, require far greater detailed planning to mitigate against harm to the delicate, discreet local ecosystems that may result in land degradation, biodiversity loss, and/or soil contamination, within the lifetime of the project. (Luuk Scholten, 2025; Alona Armstrong, 2024).

Further, this acknowledged biodiversity and ecosystem system complexity, advances the 'integration principle' whereby a balance should be sought between clean growth and environmental protection in any proposed adaptation or mitigation imitative (Trudie Dockerty, 2024; Department for Energy Security & Net Zero, 2025).This principle must necessarily influence both structure and composition and also the monitoring and ongoing management of these larger infrastructural developments. Proliferation of the earlier, rudimentary 'cut and paste' initiatives will simply no longer serve, particularly in the wider context of climate change (Trudie Dockerty, 2024).

There is a growing body of expertise (both national and international) across all the key elements here that can support the necessary reengineering of these earlier outdated initiatives, to more closely balance the demands of carbon free energy with biodiversity and ecosystem requirements (Department for Energy Security and Net Zero, 2024). This will of course require greatly enhanced engagement, energy, and innovation and from all the key players here and ultimately perhaps a significant redraft/resubmission if the project once fully understood and balanced accordingly, remains viable

In brief, vital elements noticeably absent in the current EIA include,

- A robust, site-specific assessment of the scheme's resilience to climate change and the potential for the development itself to exacerbate local climate risks alongside action/options to mitigate

- There is no quantification or modelling of how the extensive area of solar panels may increase surface water runoff, exacerbate flash flooding, or alter groundwater recharge, particularly considering climate projections for storm intensification
- With global temperatures forecast to increase in a range from 1.5°- 4°C by 2050, heatwaves will become more common. Increased heatwaves will affect solar productivity - PV panels decrease in efficiency by 0.3% - 0.5% per PV panel temperature degree increase above 25°C.- this is neither acknowledged nor implications to yield/viability explored (Alona Armstrong, 2024)
- The potential of the introduction of large-scale hard infrastructure leading to localised overheating, changes in wind patterns, or drought vulnerability affecting adjacent farmland and communities is likewise unexplored.

A comprehensive mapping of the ecosystem variants across the project's footprint, to support preservation and to identify restorative opportunities in biodiversity and ecosystem services.

Land management practices within solar farms can have both positive and/or negative impacts on hosting ecosystems e.g. **Agrivoltaic systems addressing both ongoing food production and ecosystem health. Developing these requires a full, thorough understanding of the area under consideration**

The absence of a detailed local climate risk assessment and adaptation strategy alongside a comprehensive biodiversity and ecosystem services review in the EIA here, falls far short of best practice and indeed the EN-1 requirements for demonstrating that both the project and surrounding communities will not be made more vulnerable because of the development.

References:

Alona Armstrong, F. C. (2024). Integrated Policymaking is Needed to Deliver Climate and Ecological Benefits from Solar Farms. *Journal of Applied Ecology*.

Department fo Energy Security and Net Zero. (2024). *Strategic Spatial Energy : Commission to the National Energy System.* London : Gov.uk.

Department for Energy Security & Net Zero. (2025). *Solar Road Map : United Kingdom Powered by Solar .* London: Gov.UK.

Luuk Scholten, R. G. (2025). Sharing the light, impact of solar parks on plant productivity, soil microbes and soil organic matter. *The New Phytologist* .

Trudie Dockerty, A. L. (2024). *Infrastructure Transformation for Net Zero: Environmental Risks.* UKERC Working Paper.

Site 7 is currently a Climate Change Vulnerability Buffer area (MAGIC msp). East Pye Solar has provided no information about how their proposal will impact that status or what effect removing its status will have.

Site 7 is edged and contains ancient and historic hedgerows as well as trees recognised by The Woodland Trust as Veteran and Notable. With the planned removal of many of these hedgerows in order to gain access to Site 7 as well as internal construction within the Site, East Pye Solar have not supplied any calculations on the loss of this important carbon storage mechanism when compared to the proposed replanted newer hedge. Whilst it is recognised that younger plants in the years between 6-12 years old absorb and sequester more carbon than established mature hedges, it has not taken account of the large carbon quantities that have already been locked in both the plant and the soil by the mature vegetation and that by removing these established hedgerows will release that trapped carbon. Calculations based on the estimates of rates of Carbon uptake and storage of younger plants compared to mature hedging put the time span for a replacement young hedge to balance the loss of carbon capture and storage in the plants and the soil by the mature hedge at 60 to100 years.

(Sci Total Environ 2023 Sep 20:892:164482. doi: 10.1016/j.scitotenv.2023.164482. Epub 2023 May 29. Planting hedgerows: Biomass carbon sequestration and contribution towards net-zero targets Sofia Biffi, Pippa J Chapman, Richard P Grayson, Guy Ziv,; Hedgerows increase soil carbon storage by 40%, study finds https://phys.org/news/2025-02-hedgerows-soil-carbon-storage.html; https://8point9.com/unlocking-the-carbon-drawdown-potential-of-hedgerows/)

Site 7 is a current Climate Change Vulnerability Buffer area and as such it has been managed in a way in order to increase the resilience against the impacts of climate change by providing habitat corridors not only for smaller species but larger ones such as of Red and Roe deer who have been seen regularly crossing Site 7.

As part of this scheme, Site 7 has been managed to support long term biodiversity and ensure that wildlife habitats that have been connected for centuries remain so. Hedgerows have been maintained and encouraged, with wide margins left between planted crops and the boundaries as well as the natural watercourses that feed into the River Tas have been protected.

The Draft Development Consent order (APP/3.1) March 2026 Section 11, Part 1 and Part 2 (Removal of Hedgerows and Removal of Important Hedgerows) lists vast swathes of hedgerows across the scheme planned for removal. However what isn't clear is exactly how much of , for example, *'part of 688m of section 67 on Sub-site 7D'* is actually to be removed. This vagueness will lead to catastrophic loss to established and important hedgerow as the Developer will have carte blanche on how much is removed. This vagueness is applied across the Scheme and the length of hedgerow will be tens of kilometres.

CRC8-335	Removal of part of approximately 119m of hedgerow within the area identified by a dark green line on sheet 13 of the hedgerow and tree protection order plan
CRC8-294	Removal of part of approximately 192m of hedgerow within the area identified by a dark green line on sheet 13 of the hedgerow and tree protection order plan
S-7D-67	Removal of part of approximately 688m of hedgerow within the area identified by a dark green line on sheet 10 of the hedgerow and tree protection order plan
CRC8-346	Removal of part of approximately 100m of hedgerow within the area identified by a dark green line on sheet 13 of the hedgerow and tree protection order plan
CRC8-287	Removal of part of approximately 274m of hedgerow within the area identified by a dark green line on sheet 13 of the hedgerow and tree protection order plan
S-4A-140	Removal of part of approximately 147m of hedgerow within the area identified by a dark green line on sheet 17 of the hedgerow and tree protection order plan
S-5A-62	Removal of part of approximately 248m of hedgerow within the area identified by a dark green line on sheet 16 of the hedgerow and tree protection order plan
CRC11-336	Removal of part of approximately 111m of hedgerow within the area identified by a dark green line on sheet 12 of the hedgerow and tree protection order plan
CRC8-297	Removal of part of approximately 432m of hedgerow within the area identified by a dark green line on sheet 13 of the hedgerow and tree protection order plan
CRC6-302	Removal of part of approximately 193m of hedgerow within the area identified by a dark green line on sheet 14 of the hedgerow and tree protection order plan
S-3B-8	Removal of part of approximately 286m of hedgerow within the area identified by a dark green line on sheet 15 of the hedgerow and tree protection order plan
CRC1-272	Removal of part of approximately 257m of hedgerow within the area identified by a dark green line on sheet 24 of the hedgerow and tree protection order plan

In addition to the vagueness, if the Developer doesn't know how much significant hedgerow is being removed how can they calculate biodiversity net gain?

Chapter 7: Landscape and Visual



There is no statutory landscape designation covering Site 7, ie National Parks nor are there any within 5km.

The Broads National Park is 6.4km north east of sub-site 7L.

The closest settlements and affected parishes are Tasburgh, Hempnall, Saxlingham Nethergate, Shotesham and Woodton, with Long Stratton a developing town 2km from sub-site 7A.

However there are residential properties located outside of these that are located closer to Site 7.

The nearest are as follows:

- 150m west of 7A
- 500m west 7B
- 25m and 50m south of 7C
- 30m north 7D
- 120m north east 7F
- 15m and 130m east 7L

The South Norfolk Local Landscape Designation Review 2012, identifies the parish of **'Tasburgh as A1 Tas Rural River Valley' and 'B1 Tas Tributary Farmland'**. Full information can be found in the Tasburgh Data Profile.

The description of A1 Tas Rural River Valley is:

Location and Boundaries:

- The Tas Rural River Valley runs in an approximately south to north direction through the heart of the Norwich Policy Area from Tasburgh in the south to the Norwich Southern Bypass in the north.
- Most of the character area is within the Norwich Policy Area with a small part extending to the Rural Policy Area.
- The boundaries are defined topographically, in relation to the top of the valley sides and roughly follow the 30m contour, except where human influences have caused a distinct change in character. For example, in the lower part of the valley the A140 defines the boundary on the west side as the road creates a clear division on the upper valley side.

The key characteristics of the Tas Rural River Valley are:

- Distinct, moderately wide simple valley form with medium-scale clearly defined flat valley floor, shallow side slopes and adjoining smaller-scale tributary valleys.
- Less enclosed than some other valleys with a feeling of exposure and openness and some long views within the valley but restricted external views.
- River alternately visible and hidden marked by sparse waterside vegetation including reed filled ditches and narrow woodland belts. The flat, wide, green valley floor is a distinctive feature.
- A large number of attractive fords and small bridges occur at regular intervals along the river and side tributaries.

- Pastoral valley floor with cattle grazing and distinctive willow pollards lining the water courses on the valley floor.
- Upper tributary valleys of great ecological richness and importance, including areas of fen, marsh and unimproved wet and neutral grassland.
- Fragmented woodlands and shelterbelts on the valley sides creating a wooded fringe to much of the valley interspersed with more open areas of arable land.
- Presence of historic earthworks including Scheduled Ancient Monuments, including the large highly visible defensive earthworks of Venta Icenorum and the earthworks at Tasburgh.
- Sparsely settled character with buildings clustered around fording points and at the top of the valley sides.
- Characteristic vernacular buildings particularly notably including weatherboarded mill houses and Dutch gable ends.
- Presence of a small number of distinctive halls and parkland including English Heritage listed parkland at Rainthorpe Hall.
- Network of narrow peaceful rural lanes throughout the valley including sunken lanes.
- A more disturbed character in the north of the area due to the influence of pylons, railway and roads.
- Role in dividing and defining east and west of South Norfolk District.

The description of B1 Tas Valley Tributary Farmland including Site 7 is:

Location and Boundaries:

Most of Site 7 is considered Best and Most Versitile (BMV) with some of the site grade 2 >60% with the remainder of moderate likelihood at 20-60%

- The Tas Tributary farmland is a large area of land encompassing the Tas River Valley character area.
- Located in the heart of South Norfolk, it lies at an elevation of between about 30m AOD and up to 50m AOD.
- The character area is bounded to the north, south and west by surrounding Plateau areas.
- To the east the character area adjoins Chet Tributary Farmland and Waveney Tributary Farmland.
- The character area lies within the Rural Policy Area with a small portion to the north lying within the Norwich Policy Area.

The Key Characteristics of the Tas Tributary Farmland are:

- Open, gently undulating to flat and sloping landscape incised by shallow tributary valleys, the tributary streams of which are not prominent landscape features.
- Large open arable fields of cereal, sugar beet and occasionally sweetcorn.
- Framed open views across the countryside and into adjacent character areas.
- Small blocks of deciduous woodland of high ecological and visual quality. These create wooded horizons which add variety to and create intimacy within the landscape.
- Damp grasslands of ecological importance located within the tributary valleys.

- Scattered remnant hedgerow trees, particularly oak, sometimes including intact avenues lining the roads or marking former, denuded, field boundaries.
- Transportation corridors including main connecting roads.
- Network of recreational footpaths.
- Ditches, low banks and wide grass verges associated with the network of rural roads.
- Settlement characterised by a small number of large villages including... Long Stratton - with smaller hamlets, scattered farmhouses and agricultural buildings.
- Mixed vernacular of timber-frame, stepped and Dutch Gables, thatch and round-towered churches.

Site 7 lies within the South Norfolk and High Suffolk Claylands National Character Area (NCA), which occupies a large area of central East Anglia, stretching from just below Norwich in the north, down to the river Gipping in the south. The Claylands area is a relic of glaciation from about 480,000 years ago.

This area is a predominantly flat clay plateau that dominates the character of the NCA. The plateau is incised by numerous small-wooded river valleys. These river valleys contain an important mosaic of small-scale pasture, wet heath, reed beds and woodland that provide ecological connectivity into the heart of the claylands. It is mostly an ancient, long-settled landscape, and above all this is farming country, with a strong utilitarian and rural character, evoked best in its ancient irregular field patterns that are still discernible over much of the area. It is also characterised by its medieval churches, historic timber-framed barns and houses with colour washed walls and thatched or tiled roofs.

Norfolk Wildlife Trust is actively involved in a project to restore and improve wildlife habitats in the area (ref: Restoring the Claylands by Prof, Tom Williamson, University of East Anglia).

The earliest document relating to the village is the will of Wulfgyth dated 1046 leaving land in Saxlingham to her daughters. Parts of the church are dated from C11. Saxlingham Nethergate is a ‘tail’ shape leading down to The Green and currently home to approximately 700 residents.

Key Characteristics:

• Conservation area divided into three distinct parts with three greens

• Situated across the valley of a minor stream

• Developed as a linear settlement along the line of the stream

• Strong natural character with dense woodland to the east side (including Saxlingham Grove SSSI)

• Mature hedgerows and low brick/flint walls at front boundaries are key features

There are a total of 280 dwellings. There are 42 grade II listed buildings, of which 38 are dwellings. This is 13.6% of dwellings being grade II or Grade II*. Many of these listed buildings line the

narrow unclassified road through the village (under 5 metres wide) and onto The Green where the road narrows further to measure 3.5 metres wide. Deep culverts and ancient walls run along the side of the road.

The Conservation Area sits within a typically attractive Norfolk arable landscape. The proposed panels in sites 7D and 7F will radically and adversely change the landscape setting of the Conservation Area demonstrating that the applicants have not paid any regard to the statutory duty imposed by section 72 of The Planning (Listed Buildings and Conservation Areas) Act 1990 that "…special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area…"

The grade II listed war memorial stands in the middle of the village at the junction of The Street and Pitts Hill. It was designed by FW Troup, unveiled in 1921, dedicated to the fallen and survivors of the 1st world war.

Drone illustrating narrow road heading west towards the green and corner of the war memorial (courtesy of Lockwood Chartered Surveyors).



Drone picture looking west showing sharp right hand bend at the war memorial



Land parcel 7B borders the southern side of Fairstead Lane and slopes down into the Hempnall Beck river valley, extending to within 15m of the Beck. Hempnall Beck feeds into the River Tas, an environmentally sensitive chalk stream.

Site 7B is currently arable farmland with pheasant cover strips and 10m field conservation margins.

The land is classified as having a slightly acid loamy and clayey soil with moderate to high fertility and as a result is valuable arable land, vital for the country's food security.



Fairstead Lane is a narrow single lane road extending from A140 in the west to Hempnall village in the east. At no point does it widen so 2 cars can pass. In places grass grows down the centre of the lane. It is mostly enjoyed by walkers, dog walkers and joggers as part of their daily routine as it offers immediate access to the countryside from the centre of the village, irrespective of weather conditions. Hence is popular with all age groups. The lane is also regularly used by horse riders and cyclists on account of the paucity of vehicles.



Proposed solar fields 7C and 7B lie directly opposite each other with the narrow Fairstead Lane dividing the two land parcels. This juxtaposition of solar fields creating a corridor of panels would completely change the landscape beyond recognition, accentuated by the fact the land naturally slopes south into the river valley. The solar panels in 7B would obliterate the view of the river valley whilst panels in 7C would tower over the Lane, being at a higher elevation to the Lane. This would totally industrialise the rural character of the area. The sweeping open views over arable fields delineated only by ancient hedgerows would be replaced with a narrow channel between two rows of towering solar panels. This would be quite overwhelming and the invaluable asset this Lane offers to peoples lives would be eliminated.



This loss would be further exacerbated by the scattered nature of the proposed solar scheme meaning that every footpath and road radiating from Hempnall will have a solar field either adjacent to it or within eyesight. This has the potential to have a dramatic effect on the sense of wellbeing and physical and mental health of the local community.

Chapter 8: Ecology and Biodiversity

Overview

The South Norfolk Claylands

The area is part of the National Character Area 83 South Norfolk and Upper Suffolk Claylands which have been managed to keep their own particular character, where pockets of relatively well preserved countryside have survived.

The local landscape has distinctive characteristics different from other parts of Norfolk.

These have arrived as a result of the way that people have interacted with the natural environment over centuries. These characteristics allow a **sense of place that is intimately bound up with the character of the countryside.**

The unique landscape has been subject to land management changes with increased development having a detrimental effect on the wildlife and the vital habitats that it depends upon.

Sites 7 falls into the South Norfolk Claylands.

The construction of solar arrays across Site 7 plus a 132kV substation on 7F, multiple access points across all twelve sub sites and an internal haulage route from sub-site 7A - 7F, 7G-H, 7I-J and 7K-L will all have a detrimental effect on the character and wildlife.

The Cable Route Corridors (CRC11, CRC12, CRC10, CRC8, CRC7) joining sub-sites together as well as to other sites across the scheme including under the Hempnall Beck a tributary of the river Tas. The patchwork fields act as wildlife corridors and habitat, each surrounded by mature hedgerows and tree lines, all quite typical of the topography in the area. These fields support much wildlife, fairly undisturbed, including herds of native deer, hares, redlisted birds, badgers and endangered bats.

Dark Skies

Norfolk is one of England's most rural counties and its rural landscapes and big skies and dark skies are a defining part of this rural character, deserving protection. Yet this special quality is under threat. Light pollution is caused by poorly designed or unnecessary light shining tastefully where it is not needed and it is increasing (CPRE Norfolk).

Much of the area for the East Pye Solar Scheme, away from settlements, are some of the darkest skies in Norfolk. Many people visit the area to star gaze and the Northern Lights are regularly photographed from the area. Dark Skies support many nocturnal animals including multiple bat species, in particular the endangered and protected Barbestrelle bat.

The lighting of compounds and construction areas as well as security lighting surrounding substations will have an cumulative impact to the Dark Skies across the area.



Northern Lights with the moon and stars across the East Pye Solar proposed scheme (photograph by [redacted])

If the Scheme was consented, this picture would have the Cabling Compound 2 200m away in the foreground, with 132kV Substation and Sub-site 4B to the centre right and Sub-site 4A with the holding compound below the crescent moon (centre left). Site 7 would be to the right of the picture.



Northern Lights across land proposed for East Pye Solar (photograph by [redacted])



Comet Lemmon across the skies of Site 7 (courtesy of [redacted])





Perseid Meteor shower over Site 7 (courtesy of [redacted])

The **serotine bat (nephaeus serpentinus)** has been recorded as being present on Site 7 and this is a species that has declined in many areas of its European range. Loss of feeding habitat is thought to have played a part in this. It is highly vulnerable to disturbances from construction work and toxic timber treatments.

They have three main feeding strategies: short flights, ground feeding and aerial hawking. It normally forages quite low, 0-5m above the ground. In the UK serotine bats benefit from a very comprehensive level of legal protection.

All bird species will be disturbed by this level of intrusion into their habitat.

Site 7 lies within an area of Habitat Restoration-Creation (East Pye Solar EIA scoping report 01/25)

Groundsure
LOCATION INTELLIGENCE

Long Stratton

Ref: GSIP-2024-16319-20839_A
Your ref: East Pye Solar
Grid ref: 625678 294876

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks
Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	240

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on page 261 >

ID	Location	Main Habitat	Other habitats
1	On site	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
2	On site	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
3	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

The State of Nature report shows that much of the wildlife in the UK is in serious trouble:

- 1,500 species are now at risk of being completely lost.
- 43% of birds,

- 31% of amphibians and reptiles,
- 28% of fungi and lichens
- 26% of land mammals (State of Nature Partnership 2023).

Many threatened birds with declining numbers are found across the surrounding farmland surrounding Long Stratton, in hedgerows, wooded areas and ground nesting.

Red Listed Birds:

- Lapwing
- Swift (nesting)
- Linnet
- Fieldfare
- Grey Partridge
- Skylark
- Greenfinch
- House Sparrow
- Mistle Thrush
- Herring Gull
- Turtle Dove
- Yellow Hammer
- Starling
- Spotted Flycatcher

Amber listed Birds:

- Wood Pigeon
- Tawny Owl
- Rook
- Wren
- Song Thrush
- Bullfinch
- Sparrow Hawk
- Kestral
- Mallard
- Stock Dove
- Moorhen
- Black-headed Gull
- Common Gull
- Common Whitethroat
- Redwing
- Dunnock

Gamebirds including grey partridge and pheasants are known to nest in the area and are used for game shooting events by the land owner of Site 7.

Yellow wagtails often nest in ground-level grass in damper areas, meadows and agricultural fields.

All wild birds and their nests are protected under the Wildlife and Countryside Act 1981 which makes it illegal to intentionally damage or destroy an active nest.

East Pye Solar intends to build on this type of breeding habitat and construction will take several years. Therefore the birds breeding sites will be destroyed and disturbed. This cannot be mitigated against.

Many mammals are resident across these sites including:

- Red deer
- Roe deer
- Muntjac
- Chinese Water Deer
- Hare
- Barbestrelle Bats
- Pipistrelle Bats
- Soprano Bats
- Natterers Bats
- Brown Long-Eared Bats
- Hedgehogs
- Stoats
- Weasles
- Otters in the Tas
- American mink
- Mole

Sub-Site 7B has a northern boundary with the Hempnall Beck, a tributary of the river Tas. Numerous tracks can be observed running alongside and radiating away from Hempnall Beck indicating that this corridor is a vital passageway for wildlife probably migrating back and forth from feeding and bedding areas.

Red deer, barn and tawny owls, kingfishers and bats are all abundant in this area. Otters can be found in the Hempnall Beck.



Wildlife tracks along river corridor



Wildlife tracks radiating from Hempnall Beck up to Land Parcel 7B. The tree in the photo is 1 metre from edge of 7B.

During the construction of the solar fields and establishment of cabling and associated haulage routes off the A140, there would be complete destruction of the environment both physically and from noise and vibration; arable fields and hedgerows being replaced with fencing, concrete and steel framework. Without doubt the change to the landscape and the wildlife population, no matter how big the mammal or how small the invertebrate, would be significant.

Even once the solar panels are installed, the ongoing disruption to the environment, the loss of safe wildlife migration routes, especially down to the beck and along hedgerows and field margins,

plus the loss of feeding and bedding areas would result in a significant impact on wildlife and the biodiversity of the area. It is very unlikely the ecological value of the area would ever recover.



Wildlife tracks from 7C over Fairstead Lane to 7B and Hempnall Beck

8.1 Barbastelle Bats

Land Parcel 7 lies within a **Core Sustenance Zone (CSZ) for Barbestrelle Bats**, linking it functionally to confirmed and likely maternity colonies within the wider Easy Pye landscape. CSZ land is essential for foraging, commuting and maintaining breeding success.

The proposed development would introduce:

- Extensive arrays and fencing;
- lighting, CCTV and inverter infrastructure;
- prolonged construction disturbance;
- loss and fragmentation of functionality linked habitat.

On this basis, **disturbance or damage to breeding and resting places cannot be excluded,** and the works would be **likely to require a European Protected Species licence**. The application provides **no lawful assessment of licence need or grantability**, and no evidence that the statutory tests (including maintenance of favourable conservation status at landscape scale) could be met.

Given the **cumulative CSZ overlap across multiple parcels**, this represents a **front-loaded legal constraint** rendering Land Parcel 4 **undeliverable in principle**.

Where a proposed NSIP is located wholly within overlapping Core Sustenance Zones for barbastelle bats and directly adjacent to multiple ancient woodlands supporting maternity colonies, the impacts of construction disturbance, habitat fragmentation, lighting, noise and long-term landscape disruption are **intrinsic to the scheme** and **cannot be reduced to a level that avoids adverse effects on the local barbastelle population's favourable conservation status**.

As such, the effects are **not capable of mitigation**, and the scheme is fundamentally incompatible with the Habitats Regulations.

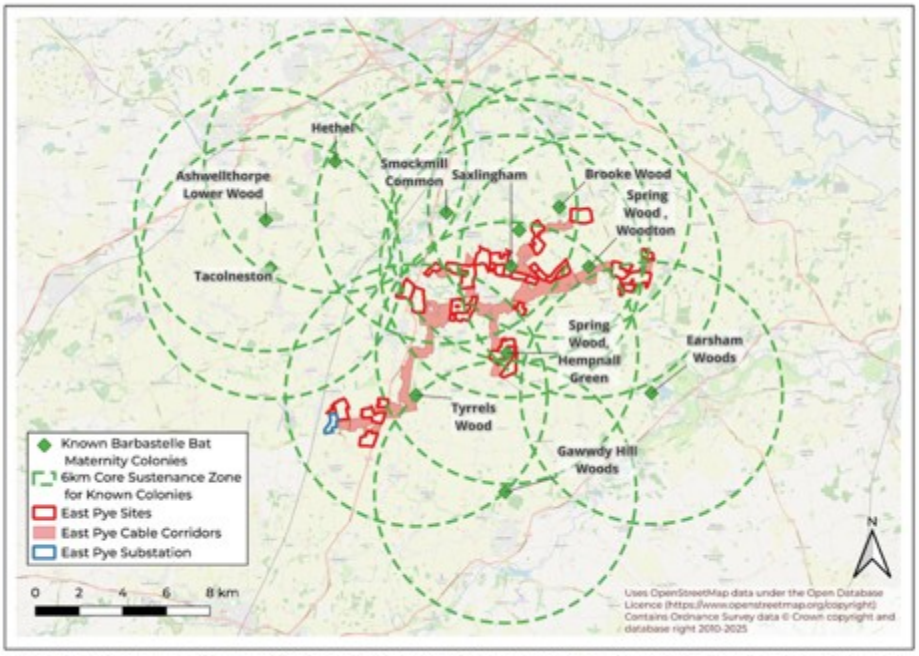


Figure 1. Core Sustenance Zones of Barbastelle Maternity Colonies within or close to the East Pye Solar Scheme Area

The Barbestrelle Bat is distinctive, elusive and very rare with big ears that meet in the middle and a flat pug-like nose. They live in deciduous woodland and like to hunt in wet woodland and meadow areas and environment very significant to that across the East Pye Solar Scheme.

Barbestrelle bats enjoy a diet of moths, midges and beetles, which they hunt at night using echolocation. They hunt in a variety of habitats, particularly over water, and have a quick and skilful flight.

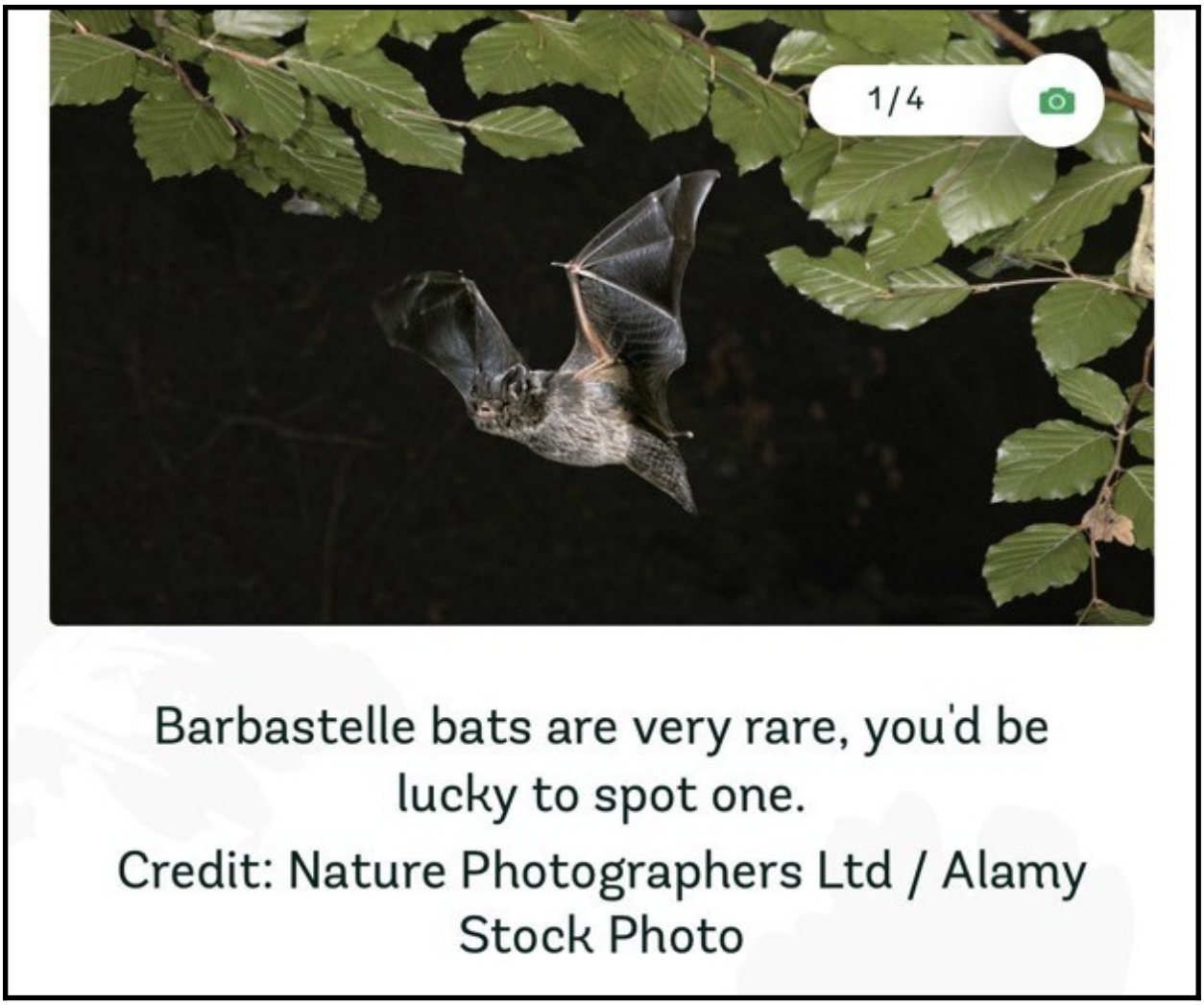
Echolocation is a way of sending out an acoustic call towards a smooth surface, like a pond, the sound bounces off the body of water. A new study in the UK has detailed how bats are confusing the smooth surfaces of solar panels for bodies of water.

With the tracking panels being at 0 degrees (horizontal) at night as they reset themselves this could be catastrophic for the colonies of foraging maternity bats.



They breed in the autumn although pregnancy is delayed until the rolling spring when nursery roosts and maternity colonies are formed. These usually consist of around 10-20 females and typically give birth to one or two pups in July.

Barbestrealle Bats hibernate in the winter months often in old buildings and holes in trees. During mild spells they may head about to forage.



They live in deciduous woodland and areas with water, like woodland streams and ponds.

Barbestrells Bats are incredibly rare and protected under the Wildlife and Countryside Act 1981. The also listed as Near Threatened globally on the IUCN Red List. They are thought to as few as 5,000 in the UK.

South Norfolk is incredibly significant for Barbestrelle Bats because it sits within a UK stronghold for this critically endangered, near-threatened mammal. There are twelve known maternity colonies surrounding and across the East Pye Solar Scheme each with a 6km Core Sustenance Zone radius for foraging. The region's mosaic of ancient woodlands, traditional hedgerows and quiet river valleys of the Claylands provides vital foraging and maternity habitats.

The Norwich Bat Group studied one of the maternity colonies at Tyrrels Wood adjacent to CRC4 and 500m from Site 2C, managed by the Woodland Trust which is also part classified as 'ancient'. It is the home to 15 roosts. The Norwich Bat Group were able to radio-track 11 females within the roosts. Four females foraged to the east, three to the west, crossing the A140. Three bats remained within 3km of the wood.

The 6km Core Sustenance Zones for Barbestrelle Bats overlap each other and cover the whole of the Scheme Order Limits including Site 7.

Based on Bat Activity Survey Report - East Pye Solar - Planning Inspectorate, Sub-site 7C and 7B of the East Pye solar project is adjacent to an off-site woodland block and near Hempnall Beck, which hosts associated woodland habitats. These habitats are considered significant for supporting five different species of bat, including barbastelle.
nsip-documents.planninginspectorate.gov.uk
Key ecological features for include:

- **Adjacent Woodland:** Provides critical habitat connectivity.
- **Hempnall Beck Woodlands:** Provides potential tree roosting opportunities.
- **Species Diversity:** Site 7C showed a higher number of potential emergence registrations for bats compared to other survey areas. nsip-documents.planninginspectorate.gov.uk

Bat Activity Survey Report - East Pye Solar - Planning Inspectorate showed Sub-Site 7C had a higher number of potential emergence registrations than the other survey areas.

This cannot be mitigated against and is a FATAL Flaw.

8.2 Skylarks



- Skylarks are ground nesting birds commonly in open farmland, pastures and grassy fields like those surrounding Long Stratton at Site 7 as well as across the rest of the scheme.

- Classified in the UK as Red under the Birds of Conservation Concern 5: the Red List for Birds (2025).https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf
- Male skylarks rise vertically from farmland, grassland etc to sing and parachute back down to earth.

Species that require long, open sight lines - specifically Skylarks and Lapwings are often displaced by the physical presence of solar arrays. Skylarks rarely nest within the arrays because their view of predators is obstructed by the panels. Lapwings typically avoid nesting in fields with vertical structures like panels or high hedges.

Any mitigation measures put in place must be carefully managed and designed to specifications suitable for individual species to survive. (Chttps://www.cam.ac.uk/stories/solar-biodiversity-birds#:~:text=Birdlife%20soars%20on%20nature%2Dfriendly,individuals%20than%20surrounding%20arable%20land. Centre for landscape regeneration, University of Cambridge, RSPB 13/2/25).

These birds are highly vulnerable to disturbances and organisations like Bird Aware Solent and the RSPB emphasise that adult birds will often desert nests if disturbed by dogs or walkers, leaving eggs or chicks vulnerable to cold or predators. Therefore it can be extrapolated from this that heavy machinery and construction traffic would have a negative impact on these birds nests too. (Norfolk Wildlife Trust, RSPB, British Trust for Ornithology :The Norfolk Bird Atlas, Game & Wildlife Conservation Trust).

East Pye Solar consider only 81 breeding pairs have been found across the scheme yet skylarks are actively heard and seen across all fields.

A skylark mitigation areas has been included within some sites which proves how valuable this area is to the protection of this endangered and protected bird. Removing 2718 acres cannot be adequately mitigated by 4 sites of about 30 acres each.

8.3 Turtle Doves



The area around Tasburgh and Hempnall in South Norfolk is considered a prime, albeit rare, location for spotting the declining European turtle dove (*Streptopelia turtur*).

Given their scarcity, the best chance of spotting them is in the early morning in early summer, listening for their distinctive "purring" song.

Turtle Doves are known to breed at Wood Green a couple of hundred meters from Cable Route Corridor 4 as well as within 7A.

- **Location & Sightings:** Turtle Doves have been sited on Sub-site 7A;
- Records indicate turtle doves in the immediate area, specifically around the B1527 Hempnall Road and Norwich Road, just south of Tasburgh. They are known to return to this locality annually, with sightings often reported in the vicinity of farms and hedgerows.
- **Best Time to See:** Turtle doves are summer visitors to the UK, typically present from **late April to September**.
- **Habitat & Habits:** They prefer farmland with dense, tall hedgerows for nesting and, crucially, access to water and seed-rich foraging areas. In this region, they may be spotted feeding on the ground or perched on telephone wires.
- **Conservation Status:** The UK population has declined by 99% since the 1960s, making them extremely rare. Local conservation efforts, often supported by initiatives like

Operation Turtle Dove, are active in Norfolk to provide food and water to help them breed. RSPB

Given their scarcity, the best chance of spotting them is in the early morning in early summer, listening for their distinctive "purring" song.

8.4 Lapwing

- Site 7 is part of the Priority Species for Countryside Stewardship Targeting for Lapwings.
- Lapwings breed on wet, grassy fields and arable and have been recorded on neighbouring fields to Site 7.
- Like Skylarks, Lapwings typically avoid nesting fields with vertical structures like panels and high hedges and are highly vulnerable to disturbances.

Lapwings occur in fields adjacent to Plot 7F but will be forced off during the construction phase and are considered unlikely to return once the panels are operational.

8.5 Great Crested Newts

Site 7 is a CORE strategic area of opportunity for Great Crested Newts with recorded colonies and sites within the Core 5 and Fringe 5 data.

- **Natural England** will only accept survey results carried out within the optimum survey period between **mid April to the end of June;**
- **From Natural England,** 'a survey for Great Crested Newts should be conducted where there's a suitable water body such as a pond or ditch within **500 metres** (m) of the development, even if it only holds water for some of the year' Gov.uk;
- Great Crested Newts have been located on multiple ponds and water areas on sub-site across 7 and across the cable routes based on data records since 2006 up and until 2023 EPS Enviromental Study Vol3; App 8.3 March 2026;
- East Pye Solar stated Surveys were to be carried out June 2024 and June 2025 on other ponds and water areas on sites;
- Further surveys were carried out on a 250m buffer zone and are dated towards the end of June (at the end of the optimum survey time) also into July, August and September;

- GCN were found to be on ponds and water areas within Site 7 and within the 250m buffer zone of sub-sites of 7 ;
- No surveys were carried out on ponds on CRC as ponds were not present on the online mapping and only discovered during CRC extended habitat surveys undertaken in late 2025 and therefore status is unknown but precautionary assumption is made. There are GCN on most ponds across the CRC;
- Some results were 'precautionary positive' due to no access or ponds were dry. Surveys on fields during key harvest times and during summer months, especially in June 2025 when the county had been in drought for months, is no surprise;
- Many local ponds have not been surveyed for Great Crested Newts by which there are breeding colonies;
- **Many natural habitats will be removed or disturbed, like significant hedgerows and foraging habitat, during construction;**
- The GCN population is considered important at a local level;
- Absence of a record labelled as 'inconclusive' does not mean there are no Great Crested Newts. It could mean there is no survey data available for that location or data could not be gained;
- In addition to the water ponds and streams circled below there are all the water courses and tributaries of the river Tas within close proximity
- Great Crested newts are recorded on Norfolk Biodiversity emapper in the area at D'Oyly's Grove and at Wood Farm House. All these sites and properties will be engulfed by solar arrays with cable routes also impinging closely, please see https://www.hempnallpc.org/wp-content/uploads/2024/09/East-Pye-Solar-Land-Options-17-09-2024.pdf Sub-site 7C and B specifically.

8.6 Common Toads

In South Norfolk, common toads are protected under the Wildlife and Countryside Act 1981, which prohibits their trade, sale, or barter. As a NERC Act 2006 (Section 41) Biodiversity Action Plan species, they are considered a priority species, requiring developers and planners to mitigate against adverse effects.

Many villages have 'Toad Patrol' to help the toads cross roads to the safety of ponds for breeding.

Key protection details:

- **Legal Status**
- **Planning Protection:** Due to being a Biodiversity Action Plan (BAP) species, local planning authorities must consider impacts on toad habitats (ponds/terrestrial) during development.
- **Conservation Status:** Recognized as a species of principal importance.
- **Highways Consideration:** Planners and engineers must consider toad migration routes in road developments.

8.7 Badgers

Badger surveys are confidential to the public. Has the Applicant surveyed Site 7?

Active badger setts have been identified across Site 7.

- Land parcels 7F and 7D support Badger setts.
- Active den, suspected badger sett, lies within 2 metres of site 7B.



There are other setts nearby on Sub-site 4B a few hundred metres away demonstrating that badgers are resident within the area.

The proposed Sub-sites will be covered by solar panels and surrounded by fencing.

The submitted badger information is redacted, so affected parties cannot determine whether these active setts have been identified, classified or assessed. This creates a serious uncertainty in the ecological baseline and in the assessment of construction disturbance, severance of foraging/commuting routes, collision risk, lighting, vibration, trench hazards and potential sett interference.

The Applicant should be required to confirm confidentially to the Examining Authority, Natural England and the relevant authority ecologists whether these setts are included in the ES badger survey; whether they are a main, annex, subsidiary or outlier sett; what activity level has been recorded; what buffer distances are proposed from haul routes, fencing, panels, trenches, lighting and construction compounds; whether any works would require a Natural England licence; and where those measures are secured in the DCO requirements and certified documents.

Given that these sett lies in an area also associated with Barbastelle Core Sustenance Zone habitat, within a hydrologically connected landscape draining toward the River Tas, as well as Skylarks, Turtle Doves and Lapwings demonstrating the significance to ground nesting at Site 7, this cannot be treated as a minor isolated constraint. It is further evidence that across Site 7 forms part of a connected ecological network whose disturbance, fragmentation and cumulative effects have not been adequately fixed or assessed.



In practical terms, it is specific, evidential, site-based, and exposes the weakness of outline mitigation. This indicator sits under Ecology baseline adequacy / protected species / construction controls / Site 7 specific constraints, and cross-reference barbastelles, woodland isolation, haul routes, lighting, hydrology and the Tas.

8.8 River Tas – Protected Chalk Stream

Chalk Streams are ecologically sensitive water bodies typically found in areas of chalk bedrock like that proposed by East Pye Solar.

85% of Chalk Streams are found in the UK and 10% of those are in Norfolk making the county globally important for this rare habitat.

Chalk Streams are one of the rarest habitats on earth with their crystal-clear water home to water voles, white-clawed crayfish, Norfolk hawker dragonflies and kingfishers; making them our equivalent to the Great Barrier Reef or Amazon Rainforest. A truly special habitat.

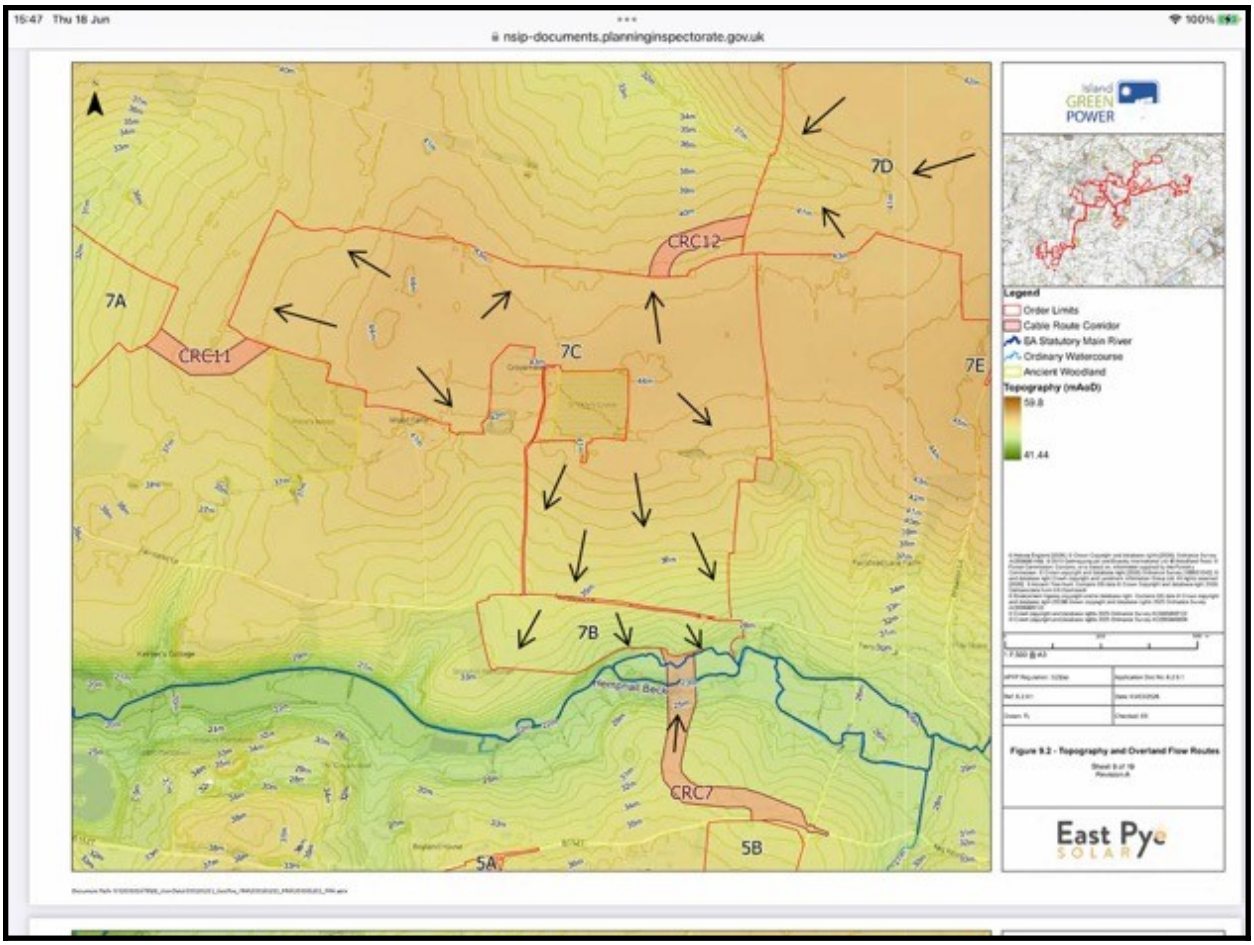
They are not just important in their own right, they are a fabulous corridor for wildlife such as otters, birds, bats - helping them move through the landscape.



Some risks posed to chalk streams in the construction, operation and decommissioning of a solar factory as follows:

- **Water consumption**: will increase reducing potential availability for chalk streams especially during dry periods.
- **Habitat Modification**: changes in land use will disrupt the natural habitats of flora and fauna that rely on chalk streams.
- **Runoff and Pollution**: construction activities like wheel washing can increase runoff and introduce pollutants like oils and chemicals that can adversely affect water quality in chalk streams.
- **Soil Compaction**: Heavy machinery used during construction, decommissioning and maintenance during operation will compact the soil affecting groundwater recharge and potentially altering the flow and quality of water feeding the chalk stream.
- **Erosion**:The removal of vegetation during construction can lead to increased erosion, which can introduce sediment into the stream and harm aquatic ecosystems.

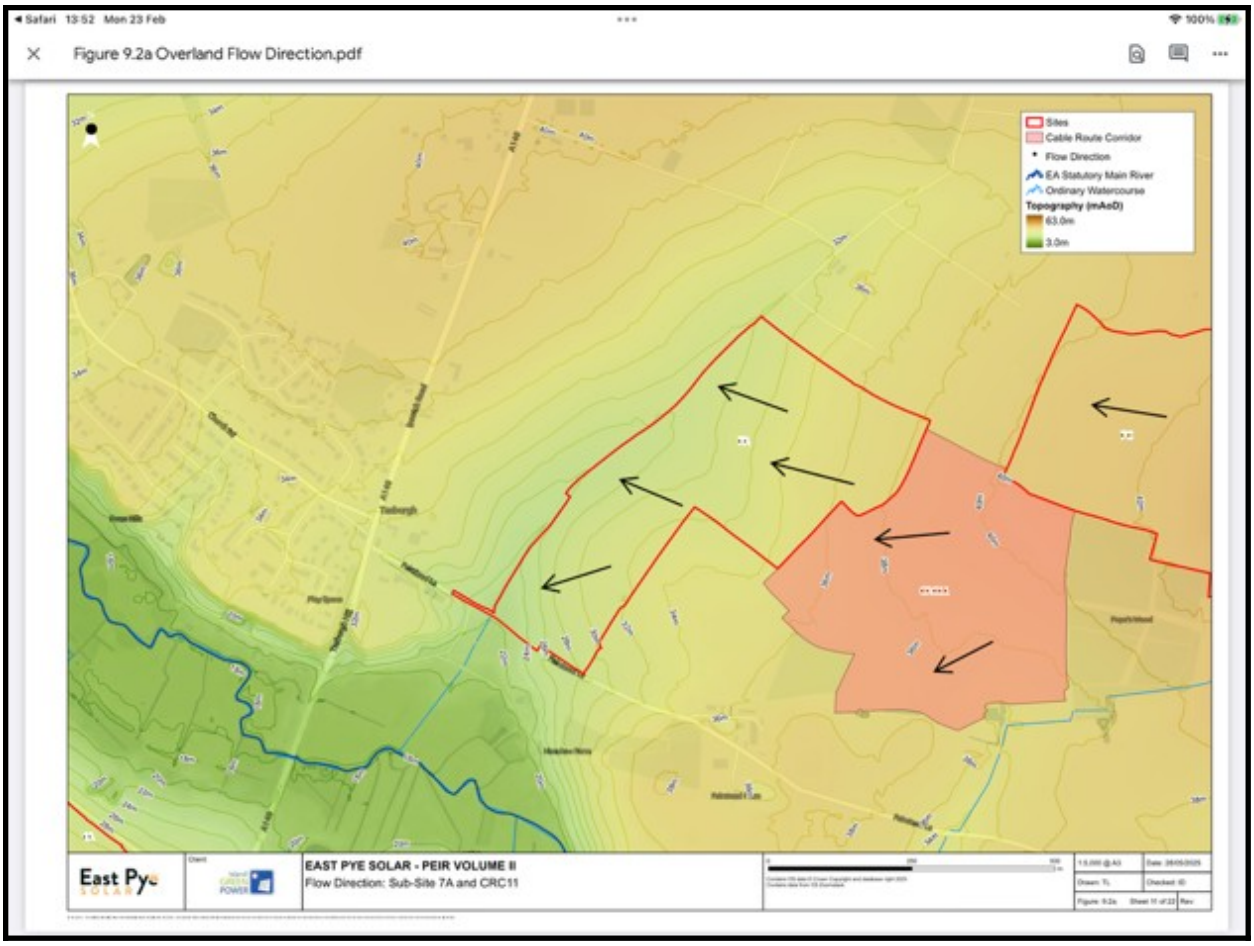
The River Tas runs directly south of Sub-sites 7A, 7B and 7C and is only **15m from the southern boundary of Sub-site 7B**

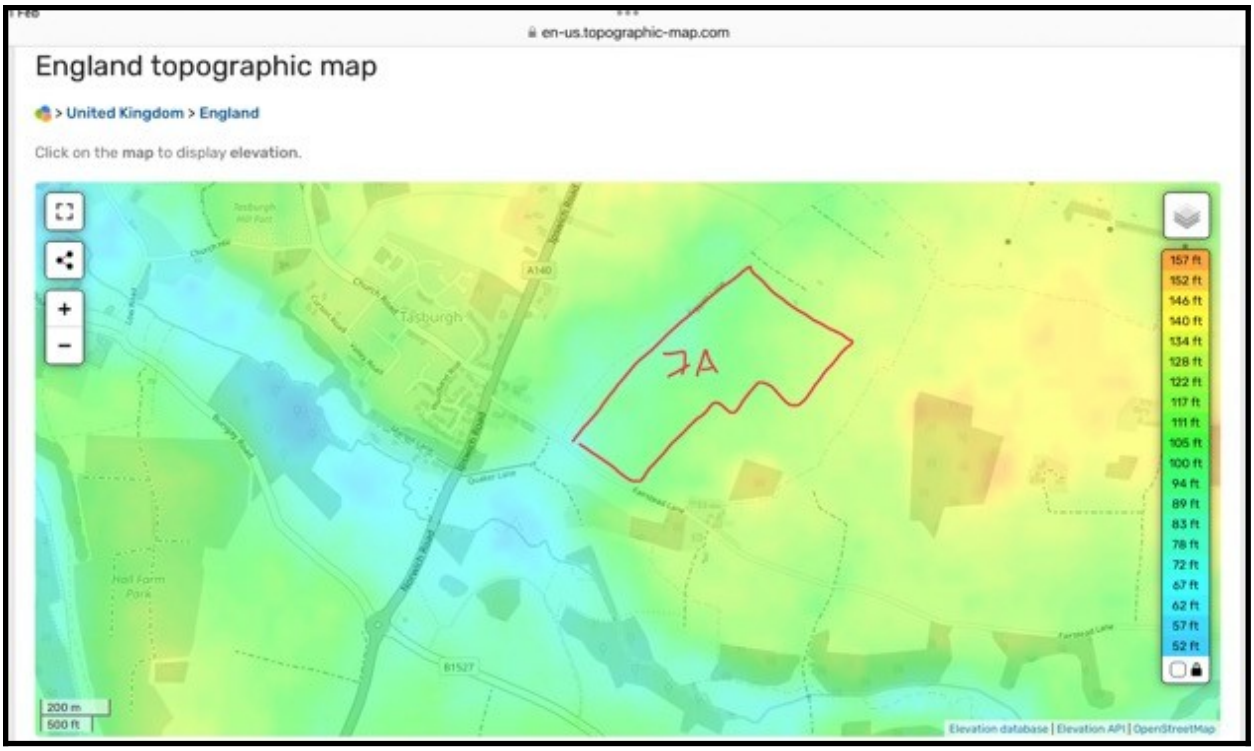


Sub-Site 7A has an unnamed water course flowing along the west boundary of the site.

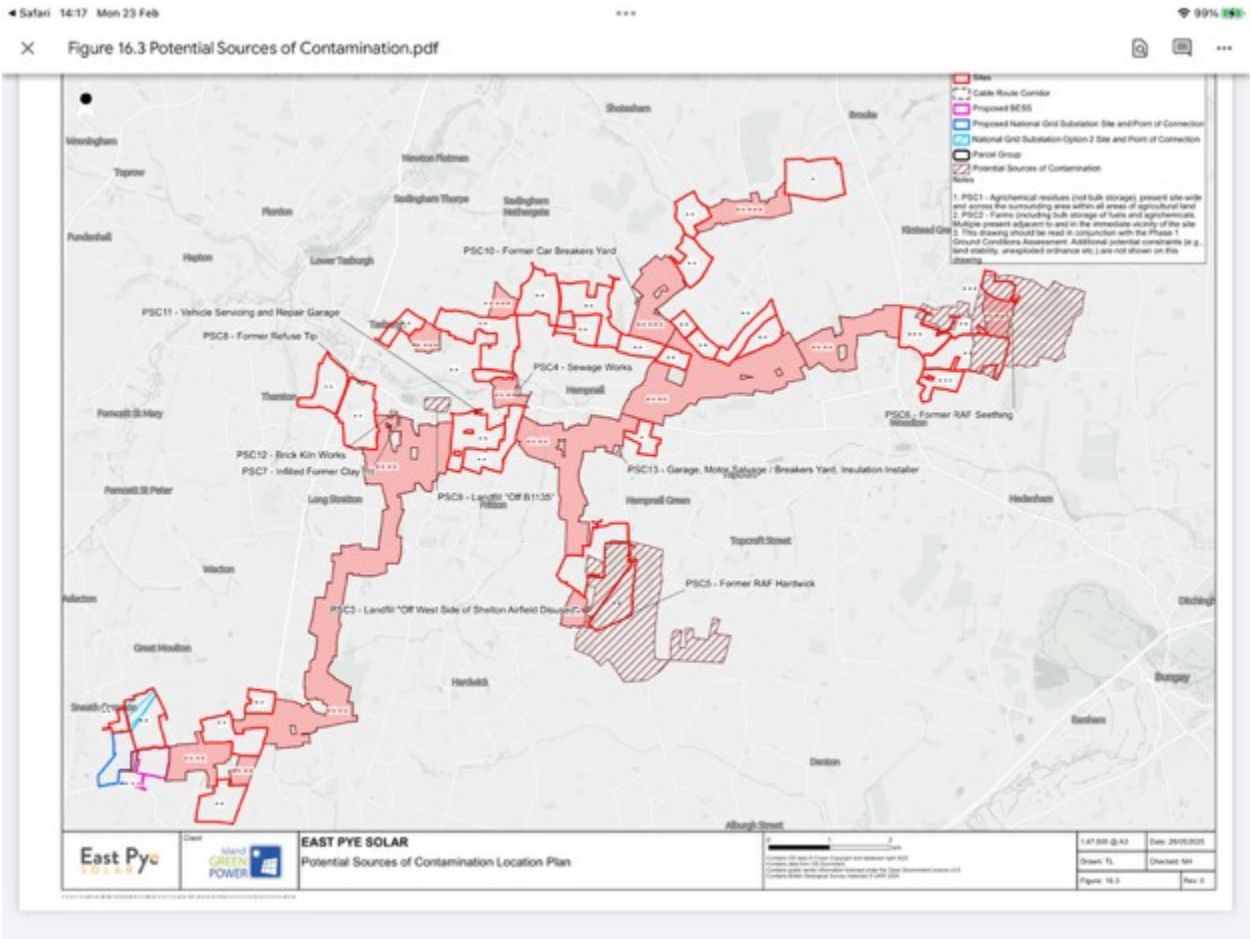


As Sub-site 7A is sloped down towards this watercourse the Tas could be subjected to run off and changed hydrology during construction, operation and decommissioning. In particular Sub-site 7A has changing ground conditions (See Chapter Ground Conditions) which makes construction on this site not a ‘one size fits all’ situation making the hydrology more vulnerable.





The removal of vegetation, soil compaction, use of extensive concrete, a haulage route, cable route corridor, the building of a substation all across site 7 and changed hydrology patterns from the installed infrastructure, will have a significant impact on water flows across this huge Site and to the Tas. These fields already flood during the winter months.



The river and drainage network nearby in the River Tas catchment and South Norfolk agricultural landscape is part of a broader freshwater ecosystem that supports several species of conservation concern, including:

- White-clawed crayfish (endangered freshwater crayfish)
- European eel (critically endangered migrant fish)
- Water vole (nationally vulnerable)
- Otter and kingfisher (important indicator species)

These species are part of the biological value of river corridors in Norfolk, and their presence depends upon good water quality, habitat complexity and effective conservation management.

8.9 White Clawed Crayfish

The White-Clawed Crayfish is a freshwater bronze-coloured crustacean with pale undersides to its claws.

They live in clean, calcareous, oxygen-rich and slow-flowing freshwater streams, rivers, lakes, canals and quarries which are mineral-rich for their shell development.

They require an environment where they can hide and burrow like tree roots, woody debris, rocks and stones. Commonly shallow waters (under 1m) though they can inhabit deeper water.

Norfolk Rivers Trust has confirmed the presence of breeding colonies of White Clawed Crayfish in the river Tas and its tributaries.

The direct hydrological connection between Sub-site 7A, 7B and 7C to the River Tas and its catchment area poses a significant risk to the hydrology of the Tas and White Clawed Crayfish.

The southern boundary of Sub-site 7B lies 15m uphill of Hempnall Beck and hence any runoff from the land parcel would flow directly into the Beck. This could cause significant harm to white crayfish populations, as with any other vulnerable organisms living in or around the water, from sediment in suspension and chemical leachate during panel installation and maintenance and cleaning procedures.

White Clawed Crayfish are protected in the UK under the Wildlife and Countryside Act 1981, Annex II and V of the EC Water Habitats Directive and listed as Endangered on the global IUCN Red List of Threatened Species.

It is illegal to take or disturb White-Clawed Crayfish with a licence.

Distribution, although widespread, is **Rare.**



8.10 Hedgerows and Significant Trees

According East Pye Solar, across the Site ‘the Scheme’ will be designed to avoid removal and damage to hedgerows. Subject to final design, where this is not feasibly practicable, some removal of hedgerows may be required. Any removal would be in line with the Hedgerow Regulations (1997)32 with necessary assessment taken place.

However there is already evidence that hedgerows on parts of the scheme have been damaged or removed at strategic points as well as trees highlighted at points of road widening including on transport routes. In addition, plenty of mature hedgerows will be removed to create cabling corridors, access points and internal haulage routes across the sub-sites of 7.

An example of enclosed fields and mature hedgerows on Site 7



Sub-site 7A from the south-west border growing barley


PYMAR'S LAN

Fairstead Lane west with the junction of Pymers Lane

Single track, mature trees and significant hedgerows border both sides of Fairstead Lane



Fairstead Lane



Fairstead Lane

There are 11 areas of Ancient Woodland located within 2km of site 7:

- Doyly's Grove, adjacent to eh south, west and north of sub-site 7C;
- Popes Wood, adjacent to the south of sub-site 7C;
- Saxlingham Grove, adjacent to the north of sub-site 7F and 7G;
- Little Wood, adjacent to the south of sub-site 7H;
- Winters grove, located 550m south-east of sub-site 7K;
- Beckett Woods located 575m south-east of sub-site 7L
- Privet Wood, located 745m south-east of sub-site 7L;
- Ringers Wood, located 770m north of sub-site 7I;
- Great Wood, located 1.2km north of sub-site 7F;
- Green Farm Grove, located 2km north of sub-site 7G;
- Brooke Wood, located 2.3km north of sub-site 7K

Smockhill Local Nature Reserve (LNR) is located 2km north of sub-site 7C.

Broadland Ramsay site, SPecial Protection Area (SPA), SACis located 9.2km north-east of sub-site 7K.

North Valley Fens SAC is located 2.8km north-west of sub-site 7A.

There are multiple SSSIs within 5km of Site 7:

- Shotesham-Woodton Hornbeam Woods SSSI, borders sub-sites 7F, 7G and 7H;
- Fritton Common SSSI, located 2.1km north of sub-site 7D;
- Shotesham Common SSSI, 4.5km south-east of sub-site 7L;
- Hedenham Wood SSSI, 4.6km east of sub-site 7L;
- FLordon Common SSSI, 4.7km west of sub-site 7A.

Veteran and ancient trees are living legends that have been a part of our landscape for generations. They are vital havens and habitat for wildlife and important carbon stores. Trees play a crucial role in regulating the climate and increase resilience to climate change. In the immediate term the habitats and benefits that mature trees provide cannot be replaced with newly planted saplings.

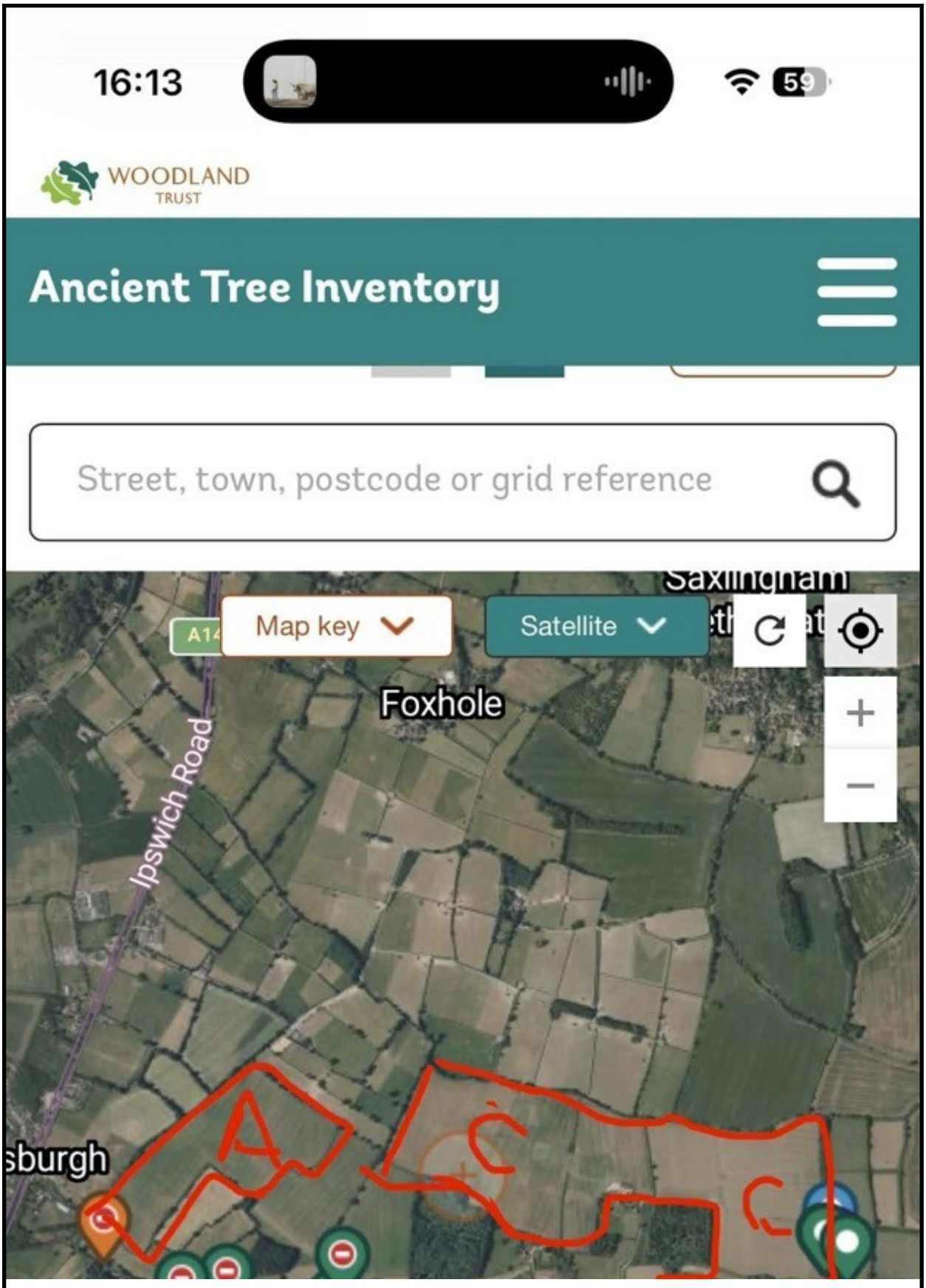
East Pye solar project Site 7 has several veteran and ancient oak trees within close proximity to the sites or at the roadside. This makes them vulnerable to the effects of construction of the solar arrays, substation and access routes onto the sites.

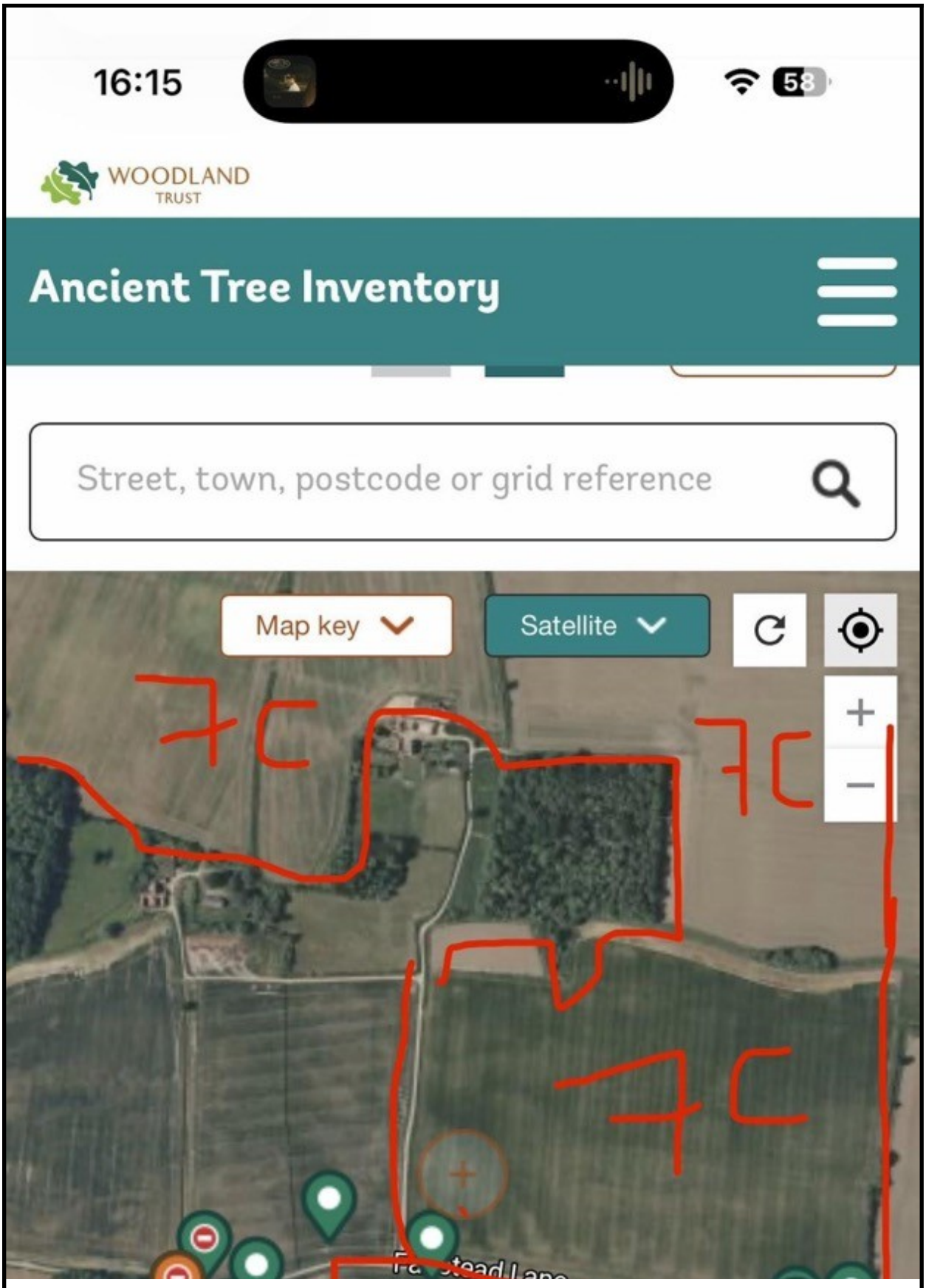
Oak tree contribution to landscapes, biodiversity, culture and economy is immeasurable.They symbolise royalty, patriotism and strength! They provide a habitat for 2300 wildlife species providing vital spaces to eat, shelter and breed. The true numbers of biodiversity are likely to be larger as the figure of 2300 doesn't include bacteria and other microorganisms.

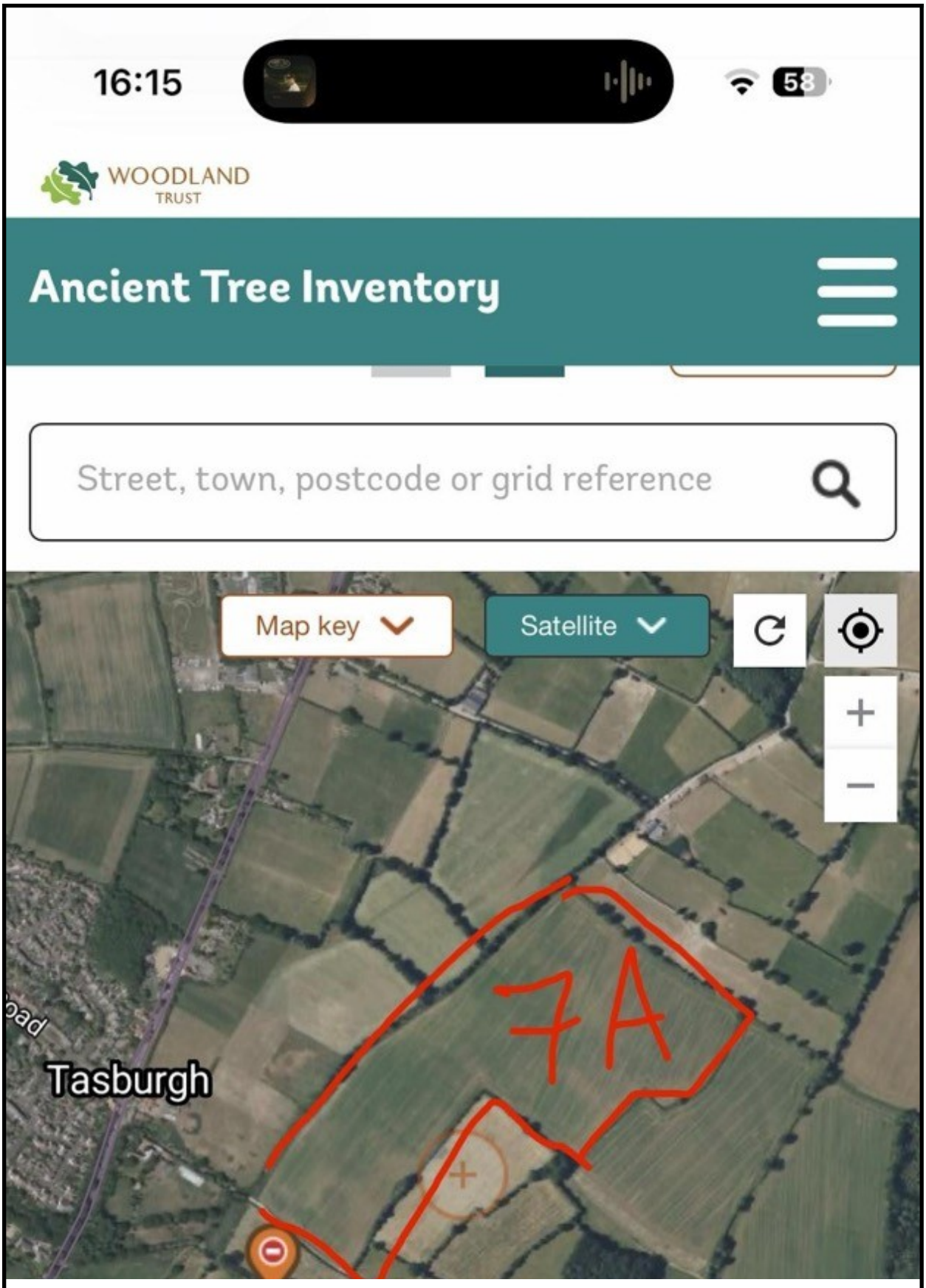
NO OTHER TREE SPECIES IN THE UNITED KINGDOM SUPPORTS A GREATER DIVERSITY OF LIFE THAN AN ANCIENT OAK

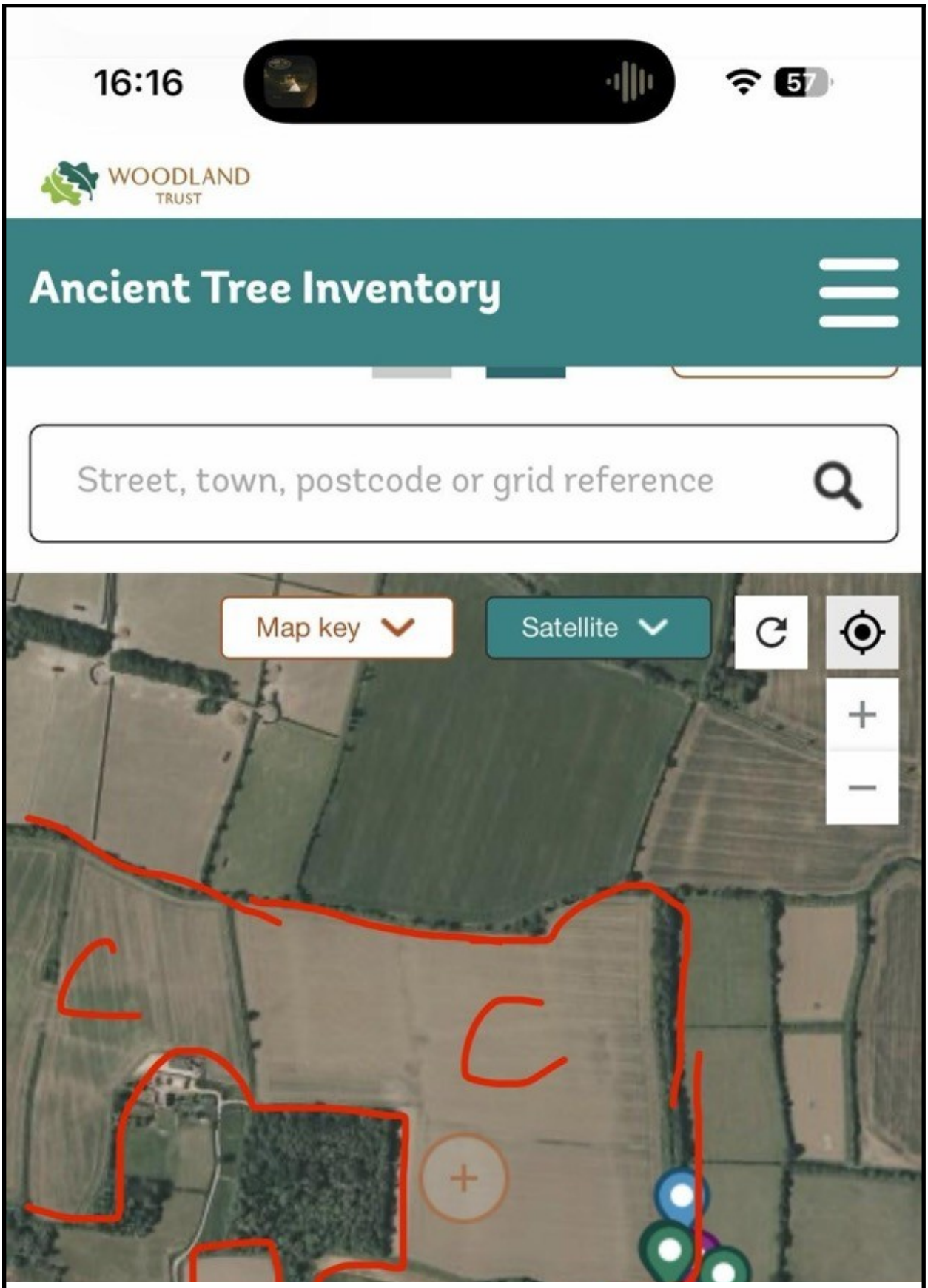
Saxlingham Nethergate - The green is lined with overhanging ancient oak (at least 12), dated over 500 years. Other trees such as horse chestnuts and lime dated over 200 years

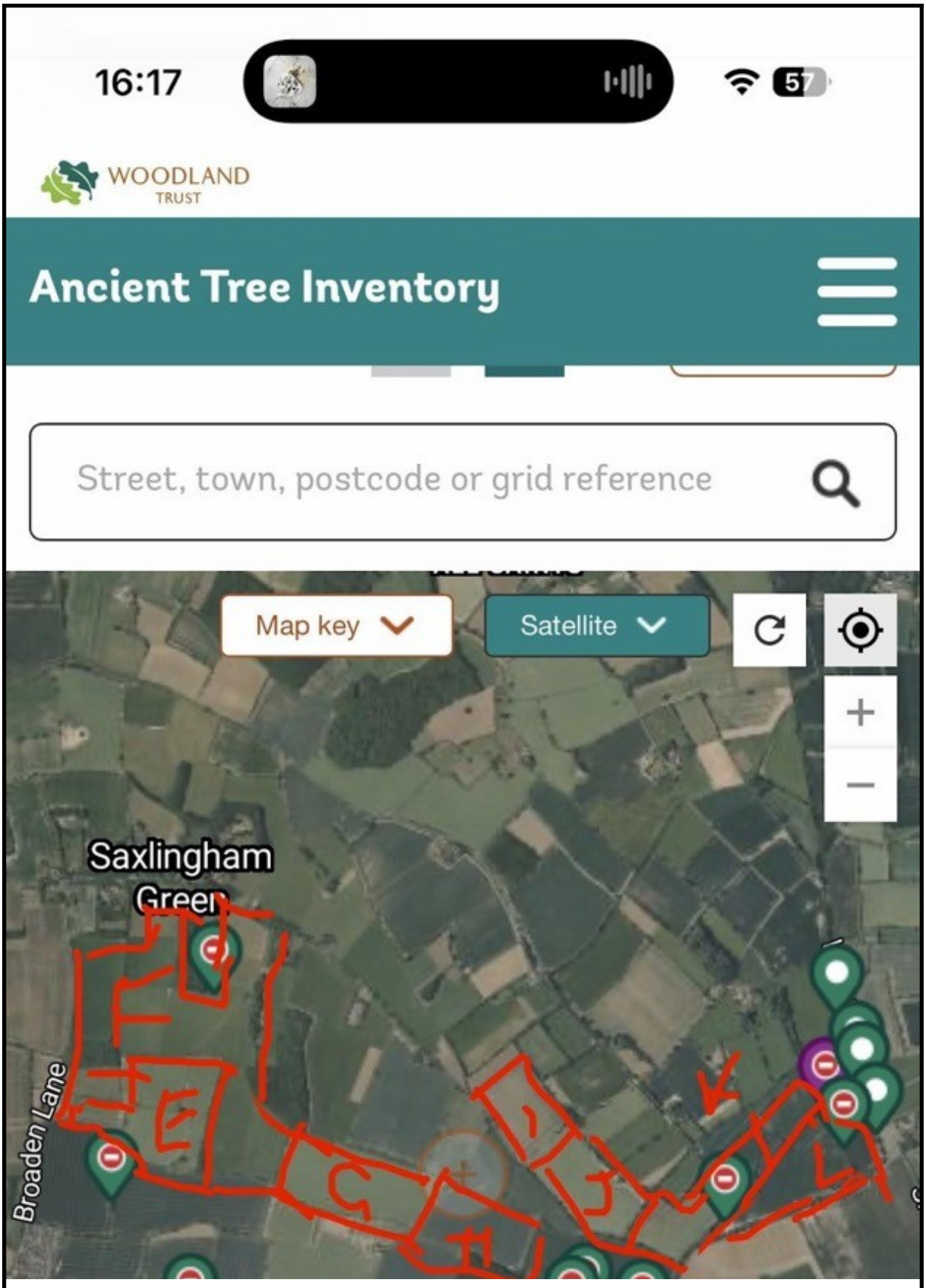
There are multiple Ancient and Veteran trees across Site 7, cable route, and access points


16:13
WOODLAND TRUST
Ancient Tree Inventory
Street, town, postcode or grid reference
Map key
Satellite
A14
Foxhole
Ipswich Road
A
C
C


16:15
WOODLAND TRUST
Ancient Tree Inventory
Street, town, postcode or grid reference
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Satellite
7C
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Satellite
Tasburgh
7A


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WOODLAND TRUST
Ancient Tree Inventory
Street, town, postcode or grid reference
Map key
Satellite


16:17
WOODLAND TRUST
Ancient Tree Inventory
Street, town, postcode or grid reference
Map key
Satellite
Saxlingham Green
Broaden Lane

‹ Image 2 of 2 ›



WOODLAND TRUST

Ancient Tree Inventory



About the tree

Show more

Species:	**Oak**
Form:	**Pollard**

Ancient and established hedgerows benefit nature and climate

Ancient and established hedgerows are critical, living infrastructure that provide immense, multi-layered benefits to both biodiversity and climate change mitigation, often acting as "superheroes" of the countryside. These, often centuries-old, linear habitats function as vital **wildlife corridors**, **carbon sinks**, and **natural flood management systems**. CPRE

Here is a detailed breakdown of how they benefit nature and climate:

Benefits to Nature and Biodiversity

- **Biodiversity Hotspots & Refuges:** Hedgerows support over 600 plant, 1,500 insect, 65 bird, and 20 mammal species. They are essential habitats for threatened species, including the **hazel dormouse**, hedgehogs, and the brown hairstreak butterfly.
- **Green Corridors (Wildlife Highways):** In fragmented landscapes, established hedges act as crucial, continuous green arteries, allowing species to move, forage, and spread safely between isolated woodlands and fields.
- **Food and Shelter:** They provide year-round resources, including berries, nuts, and nectar for pollinators, and act as nesting sites for farmland birds (supporting up to 80% of woodland/farmland bird species).
- **Nursery for Predators:** Hedgerows house predatory insects (like ladybirds and beetles) that naturally control agricultural pests, reducing the need for pesticides. CPRE

Benefits to Climate and Environment

- **Carbon Sequestration & Storage:** Like trees, hedgerows lock up significant carbon in their woody biomass, leaves, and roots. Crucially, the soil beneath established, older hedges can store up to **40% more carbon than surrounding grassland**, making them a major long-term carbon sink.
- **Soil Stabilization:** Their deep, established root systems bind the soil, reducing erosion from wind and water, which is essential given that 1 inch of topsoil can take over 500 years to form.
- **Flood Mitigation & Water Quality:** Hedgerows act as "sponges" and physical barriers that intercept heavy rainfall, slowing water flow and increasing infiltration, thus reducing flood risks. They also reduce water-borne pollution by trapping fertilizers and pesticides before they enter watercourses.
- **Microclimate Regulation:** They provide vital shade and shelter for livestock and crops, reducing heat stress in summer and protecting against cold winds and snow in winter.
- **Air Pollution Capture:** In both rural and urban areas, hedgerows, particularly those with rough, hairy leaves, trap air pollution particles. University of Leeds

The Value of "Ancient" vs. New

- **Species Richness:** Ancient hedges (often 400+ years old) have higher species diversity, providing more varied habitats and resources than recently planted, single-species hedges.
- **Structural Maturity:** Older, established hedges have larger, more robust roots and biomass, offering superior carbon storage and shelter compared to young trees.
- **Heritage & Continuity:** They act as historical landmarks that define landscape character and connect us to centuries of agricultural heritage. University of Leeds
- A checkerboard of segregated fields is typical of the character of South Norfolk and easily identified across the scheme by the various shapes of land parcels proposed;
- Site 7 comprises of fields separated by hedgerows;
- CRC4 comprises of approximately 50 fields separated by hedgerows.

8.11 Rare Flora

No surveys have been carried out on road boundaries and verges across the Scheme. Many verges are supported by the Road Side Conservation Scheme and will be impacted with heavy construction traffic and access points for Cabling and Sites.

Chapter 9: Water Environment

Introduction

9.1 Rivers, Streams, Ditches, Culverts

Saxlingham Nethergate - Numerous culverts and ditches run alongside the narrow road through the village to The Green. Culverts also run under the unclassified road forming The Green, connecting roadside ponds to flowing ditches on the opposite side. These culverts will undoubtedly be damaged by the planned HGV traffic. The photo below, of the road between Saxlingham Nethergate and Hempnall, at the bend at the start of The Green, looks just like a regular road but underneath is a bridge and a culvert. This bridge is opposite an ancient wall. If indivisible loads pass through they would damage the culvert and the wall.



Junction of Broaden Lane and The Green, looking towards Saxlingham Nethergate Grid ref: TM2380 9660

A flowing ditch runs alongside The Street in Saxlingham Nethergate, edged on the road side of the ditch by concrete banking and white metal railings (see photo below).



The Street, Saxlingham Nethergate, looking South TM2292 9740

This is the proposed route for the AIL and other HGC traffic but the weight of such loads would undoubtedly cause damage to the concrete banking, if not total collapse. The vehicles could not keep away from this vulnerable edge because of buildings, pedestrian paving and residential garden boundaries e.g. brick walls on the opposite side of the road. Large volumes of surface water run-off collect near the war memorial during heavy rain, e.g. running down from Wash Lane (where an improvement scheme is about to start), Church Hill and Pitt's Hill, and a large culvert under a footbridge feeds into this ditch (see photo below) so any damage to the ditch could cause

flooding to surrounding properties.



Flooding on route through Saxlingham Nethergate Grid ref: TM2298 9712

Appendix A, utilising EA Open Data datasets available online and reproduced with OS mapping under licence. The Flood Zone and Risk of Flooding from Surface Water (RoFSW) maps utilise the extents from the EA National Flood Risk Assessment ('NaFRA2') mapping updates released early 2025.

Historic Flooding Records

The EA Historic Flood map indicates that there is no record of land within the Order Limits being impacted by incidences of fluvial flooding.

The NCC Flood Investigation Reports indicate that flooding has occurred on local roads and properties of villages in the vicinity of the Order Limits, including Hempnall, Woodton and Long Stratton. The mechanisms of flooding were considered to be unmaintained drainage systems, with locations of properties adjacent to, or within, an overland flow path and the design standard of the drainage systems being unable to cope with significant rainfall events.

This makes no reference to the internal flooding of properties in The Street in Saxlingham Nethergate in 2020, which although some areas may fall outside of the boundary- The Street forms part of the abnormal load route. During that event, floodwater accumulated on the highway

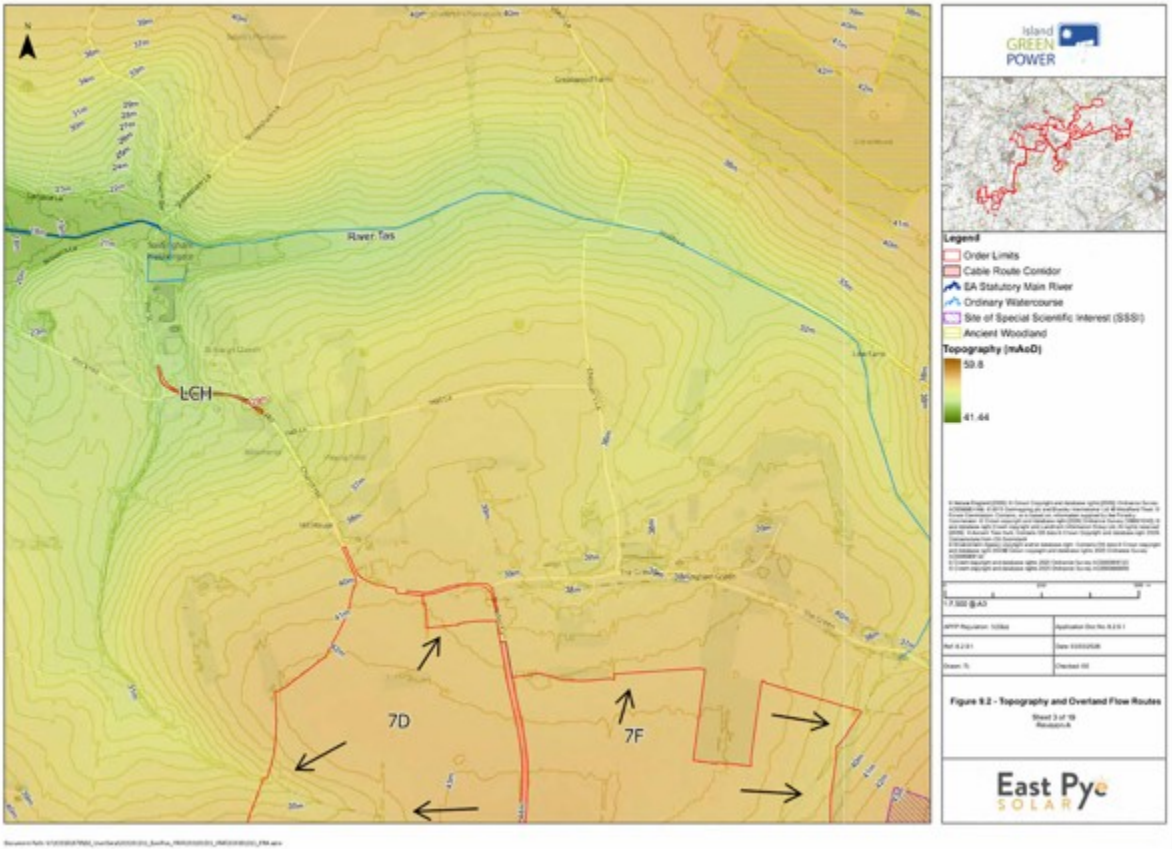
and was materially exacerbated by passing traffic displacing water toward residential properties. The actual flooding experienced demonstrates that mapped datasets and modelling alone may not provide a complete representation of local flood susceptibility or surface water behaviour during severe rainfall events when there is heavy traffic along the roads. The flood risk assessment is therefore incomplete.

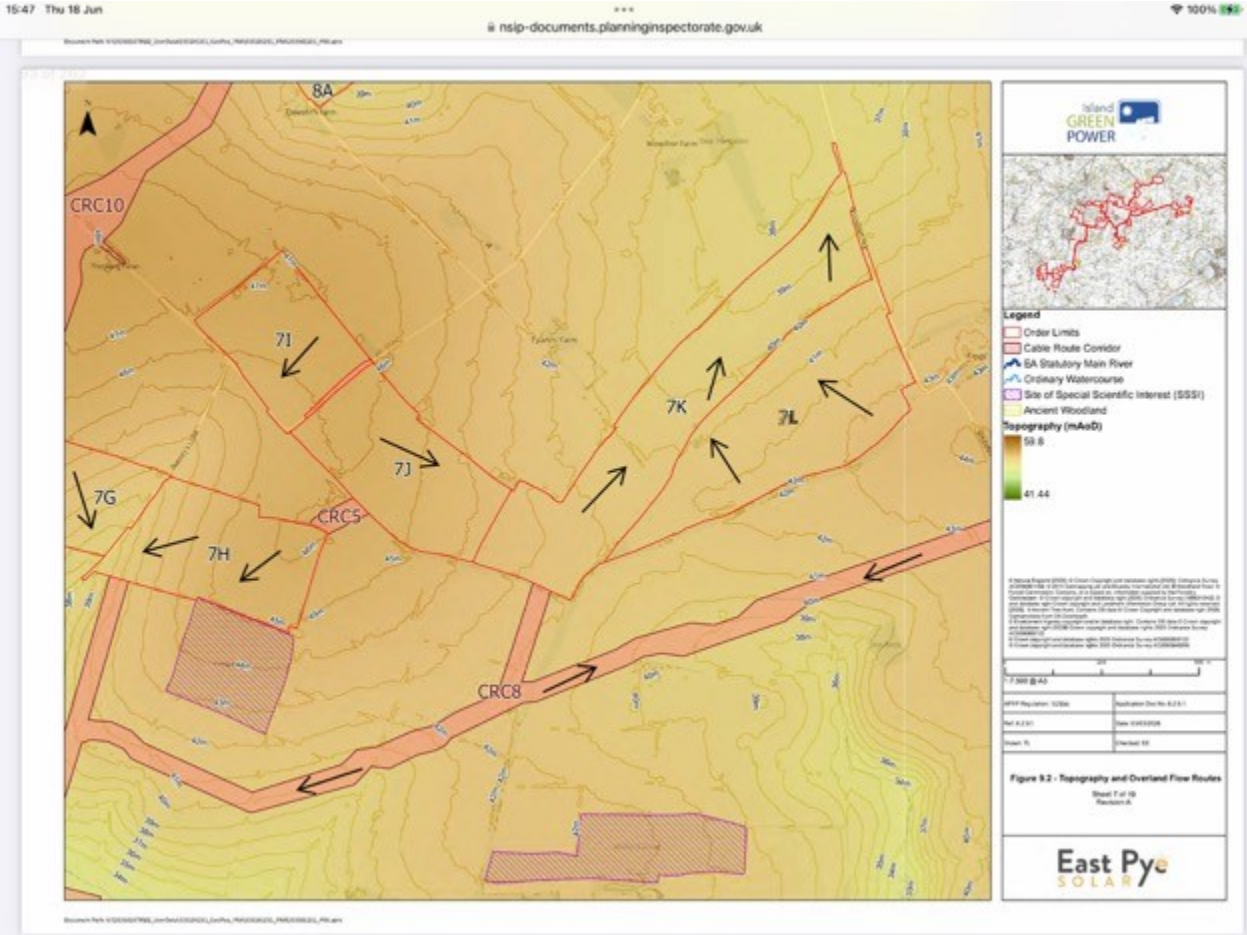
Given the inconsistencies mentioned above it is submitted that too much information is deferred or unclear and given the scale and cumulative effect of the scheme, residents and other people impacted should be clear and fully consulted.



Culvert on The Street, near War Memorial, Saxlingham Nethergate TM2298 9712

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nsip-documents.planninginspectorate.gov.uk
100%





9.2 Flooding

Saxlingham Nethergate - the land parcels are on heavy clay soil, as are the surrounding fields and public footpaths and bridleways. Many of these paths become badly flooded after heavy rain. The garden of one of the houses overlooking 7F, Woods End Cottage, that abuts a field next to 7F, is water-logged all winter and sometimes at other times after heavy rain, as is the field next to 7F. The concrete plinths, pads and pilings for the panels, inverters and substation will undoubtedly exacerbate this flooding for surrounding fields, roads and properties.

Historic Flooding Records

The EA Historic Flood map indicates that there is no record of land within the Order Limits being impacted by incidences of fluvial flooding.

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This makes no reference to the internal flooding of properties in The Street in Saxlingham Nethergate in 2020, which although some areas may fall outside of the boundary- The Street forms part of the abnormal load route. During that event, floodwater accumulated on the highway and was materially exacerbated by passing traffic displacing water toward residential properties. The actual flooding experienced demonstrates that mapped datasets and modelling alone may not provide a complete representation of local flood susceptibility or surface water behaviour during severe rainfall events when there is heavy traffic along the roads. The flood risk assessment is therefore incomplete.

Given the inconsistencies mentioned above it is submitted that too much information is deferred or unclear and given the scale and cumulative effect of the scheme, residents and other people impacted should be clear and fully consulted.

Sub-site 7A Tasburgh, is in a Woodland flood risk zone as well as high spatial priority area to the south west boundary at Fairstead Lane as the land drains into the water course that flows towards the river Tas valley.

Sub-site 7B lies on high ground which also drains south into Hempnall Beck, a tributary of the River Tas. In places the river valley is quite deeply incised.

Sub-site 7C lies on even higher ground above 7B. Two vast fields of solar panels 4.5m high and tracking the sun east to west. Increased rainwater run-off and particularly at times of heavy rainfall and where soil is impacted would cause localised flooding downstream and have a significant impact on wildlife living/nesting on or close to the riverbank.

It could also increase sediment runoff thus choking the beck at times of heavy rainfall adversely affecting all forms of aquatic populations, such a white clawed crayfish.

The removal of field margins and hedgerows would accentuate this effect.

9.3 Public Drinking Water Supplies

The River Tas in Norfolk is part of the Broadland rivers catchment, which generally supports public water supplies, particularly around Norwich

While the catchment as a whole is used, the river is primarily characterized as a chalk stream and tributary of the River Yare.
Broadland Catchment Partnership

Key details regarding the River Tas:

- **Catchment Area:** The Tas originates at Carleton Fen , near New Buckenham and joins the River Yare at Trowse, contributing to the broader water network in the region.
- **Water Source:** The river, along with other Broadland rivers and groundwater, is utilized in the overall catchment strategy for supplying drinking water, specifically to the Norwich area.
- **Environmental Context:** As a tributary of the Yare, it is a chalk stream. However, water quality in the region has been flagged, with reports in 2025 suggesting high levels of pollution in many Norfolk Broads rivers. Broadland Catchment Partnership

Most public drinking water in Norfolk is sourced from groundwater (**chalk aquifers**) rather than directly from smaller, raw river sources like the Tas, though the river feeds the wider system.

The neighbouring properties to Site 7A Tasburgh are mainly on mains water however there are some private water supplies in the close vicinity on the plot.

Plot 7A fall under several schemes as follows:

- Woodland water quality, lower spatial priority
- Keeping Rivers Cool zone
- Ground Water Vulnerability area - soluble rock risk as medium.
- Countryside Stewardship water quality area - high priority
- Higher level stewardship target - Norfolk river valleys

9.4 Private Drinking Water Supplies

South Norfolk and Broadland District Council

South Norfolk and Broadland DistrictCouncil private water abstractions information

There are 35 private water supplies registered pursuant to the provisions of the Private Water Supply Regulations 2016 within 250m of the Site. The council were unable to provide co-ordinates. The strata from which these private water supplies abstract water were not provided. Private water supplies are located in proximity to the following CRC and sub-Sites.

o Substation.

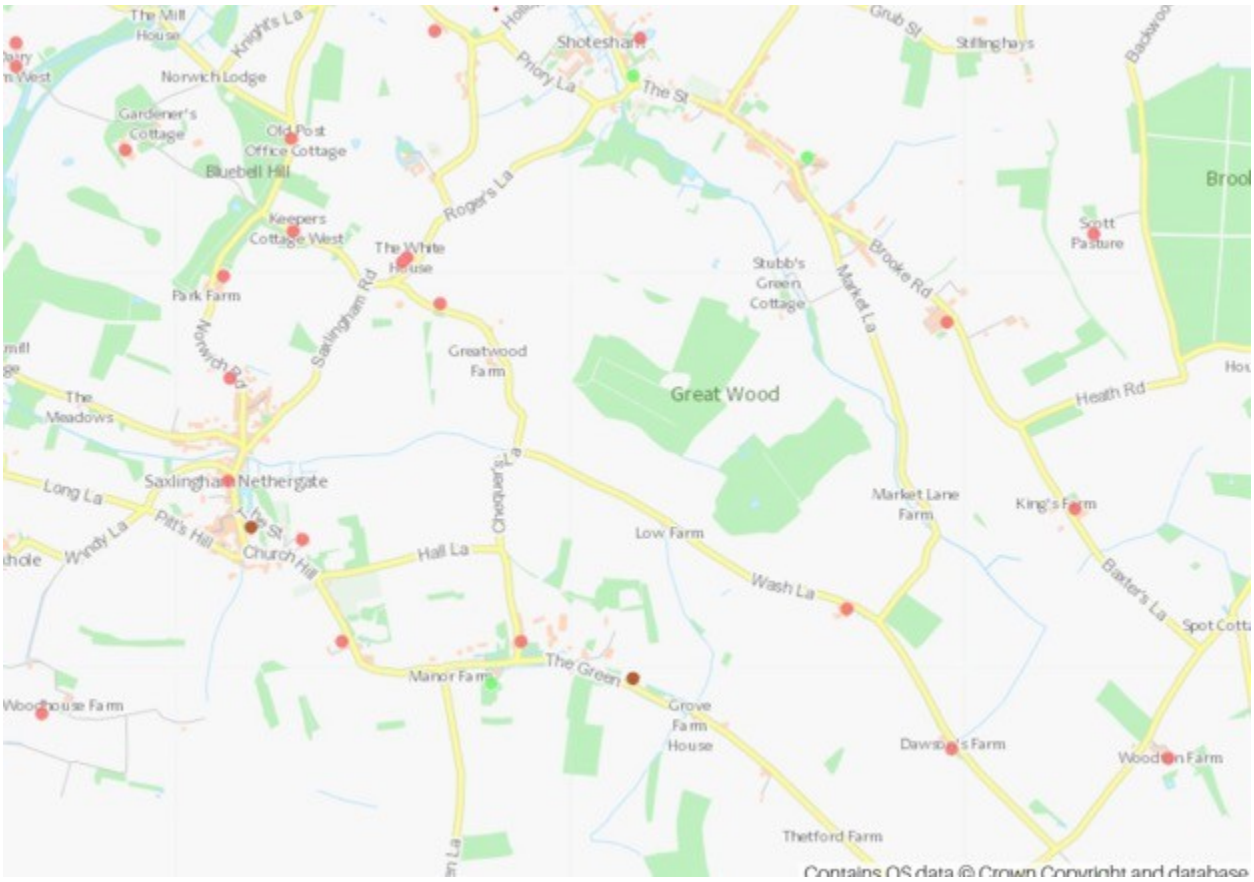
o 1A, 2B, 3A, 3B, 6, **7A, 7B, 7C, 7D, 7F, 7I**, 8A, 8B, 10E.

o CRC1, CRC2, **CRC4**, **CRC7**, CRC8, **CRC10**, **CRC11**, CRC13.

The Council do not hold any other relevant ground conditions information

Saxlingham Nethergate

According to The British Geological Society, the onshore private water supplies map shows bore holes along the route through Saxlingham Nethergate and The Green. The red dots on the map below illustrate the locations.



9.5 Drinking Water Protection Zone (SPZs)

The area between Tasburgh and Hempnall is within a designated water protection area. Specifically, this area is part of the

Yare Operational Catchment, which includes the **Hempnall Beck** and the **River Tas** (from its headwaters to downstream of Tasburgh). Data.gov.uk

Water protection in this area:

- **Drinking Water Safeguard Zones (SgZs):**The area is monitored for water quality, with specific attention to protecting water sources used for drinking.

9.6 Contamination risks to Public and Private Drinking Water Supplies

The **East Pye Construction site on site 7A, Tasburgh** and the influx of construction workers across the whole scheme will impact water and waste management during the 2-3 years the East Pye Solar project will take to build and subsequently dismantle. Flooding and groundwater resulting from wheel washing, pile driving and land disruptions will all have the potential to drain towards the chalk stream and lead to contamination of the water course. Land parcel 7A Tasburgh slope towards the tributary of the Tas as can be seen on OS Explorer 237 Norwich map.

- **Planning Constraint:** Any new development in the River Tas catchment that provides overnight accommodation (homes, hotels, etc.) must prove it will be **"nutrient neutral"** before planning permission is granted by South Norfolk Council.
- **Mitigation:** Developers must often use the Norfolk Nutrient Budget Calculator to determine how much nitrogen and phosphorus their project will add and find ways to offset it
- **Site 7A Tasburgh** is in a Phosphate issues high priority area

9.7 Risks of Pile-Driven and Concrete-Mounted Infrastructure to Private Drinking Water Supplies

East Pye Solar Project proposed plan for Site 7 is for the construction of solar arrays. Therefore these land parcels will be impacted as detailed below;

Concrete-mounted infrastructure—such as building foundations, pilings, paving, and retaining walls—can significantly impact private drinking water supplies (wells, boreholes, and springs) primarily through chemical leaching and physical disruption of groundwater flow. These impacts are most severe during construction and for a period after, as fresh concrete is highly alkaline and releases pollutants;

.

Chemical Contamination (Leaching)

- **High pH and Alkalinity:** Fresh concrete and grout are extremely alkaline (high pH). Rainwater or groundwater passing through or over new concrete structures can dissolve cement components, leading to "leachate" that increases the alkalinity of nearby groundwater.
- **Heavy Metal Contamination:** Concrete leachate can contain heavy metals and harmful elements that contaminate water sources, including chromium (particularly Hexavalent Chromium VI), arsenic, barium, lead, zinc, and nickel.

- **Sulphate and Mineral Release:** The leaching process can increase sulphate, calcium, and mineral content, which may make the water taste metallic, appear cloudy (turbid), or exceed safety standards for human consumption.
- **Interaction with Disinfectants:** If water containing disinfectants (like chlorine) comes into contact with new cement surfaces, the leaching of pollutants—including aluminum and chromium—can increase significantly. Springer Nature Link

2. Groundwater Disruption and Physical Damage

- **Alteration of Flow Patterns:** Deep foundations, pilings, and retaining walls can act as barriers that disrupt natural groundwater flow, causing water to rise upstream of the structure or reducing the supply (yield) to nearby wells.
- **Dewatering Risks:** During the construction of concrete structures (e.g., in deep excavations), contractors may pump out groundwater. This "dewatering" can temporarily or permanently lower the water table, reducing the yield of nearby private wells.
- **Creation of Contaminant Pathways:**Improperly designed or installed concrete foundations can create new, preferential pathways for surface pollutants to travel directly into aquifers, bypassing natural soil filtration. Preene Groundwater Consulting

3. Structural Vulnerabilities

- **Porosity of Old Infrastructure:** While concrete is generally durable, older concrete tanks or wells can develop cracks, allowing surface contaminants (bacteria, nitrates) to enter the drinking water supply.
- **Weakened Structure:** Soft groundwater can react with concrete, causing it to deteriorate over time, further increasing the potential for contaminants to leach into the surrounding ground. Springer Nature Link

The River Tas catchment is managed to reduce flood risk through a combination of local and national agencies.

- **Permit Requirements:** For works on or near the "Main River" sections of the Tas, you must apply for a Flood Risk Activity Permit from the **Environment Agency**. For "ordinary watercourses" (smaller tributaries), you must contact the Norfolk Rivers Internal Drainage Board (IDB) for consent.
- **Sustainable Drainage (SuDS):** All new developments must follow Norfolk County Council's drainage design standards, ensuring that surface water run-off does not exceed greenfield rates. Water Management Alliance

9.8 River Catchment Area

Sub-site 7A is within 100m of the river Tas tributary, **Sub-site 7B** is within 15m of the river Tas tributary and **Sub-site 7C** is also within 100m of the river Tas tributary. **Sub-site 7E** also lies within the River Tas catchment.

A highly protected chalk stream with significant environmental and ecology benefits.

An area already subject to environmental pressures including nutrient enrichment, sedimentation, and chemical pollution. Development risks exacerbating these issues through land disturbance, runoff, and loss of riparian buffers, undermining efforts to improve water quality and aquatic habitats.

Norfolk Rivers Trust has confirmed the presence of breeding colonies of white clawed crayfish in the Tas and its tributaries. The direct hydrological connection between land parcel 7A and the Tas, and its catchment area, posed a significant risk to the hydrology of the Tas and the white clawed crayfish.

Chapter 10: Cultural Heritage

Introduction

East Pye Solar's own documents state there are multiple Listed Buildings located within 3km of Site 7 however this isn't just about individual residents and buildings, this is about the impact to an area rich in heritage buildings, agricultural heritage, character of the landscape and the environment of this vast site, South Norfolk and the county of Norfolk itself where people visit for the heritage it offers.

East Pye's own documents play down the importance of this heritage area by describing as follows:

'Due to their prevalence in the area, Grade II Listed Buildings are reported up to 100m only….Any Grade II Listed Buildings that are pertinent to the assessment of likely significant effects that are over 100m are discussed in Chapter 9'.

It's like saying that only some matter, whilst others are insignificant. Instead of acknowledging the area as a significant heritage asset.

Grade II listed within 100m of sites:

- Grade II Listed Building 'Wood Farmhouse', 30m south of sub-Site 7C;
- Grade II Listed Building 'Grove Farmhouse', 45m south-west of sub-Site 7C;
- Grade II Listed Building 'Manor Cottage', 55m north of sub-Site 7D;
- Grade II Listed Building 'Manor Farmhouse Barn', 65m north-east of sub-Site 7D;
- Grade II Listed Building 'Manor Farmhouse', 70m north of sub-Site 7D;
- Grade II Listed Building 'Hill Cottages', 85m north of sub-Site 7D;
- Grade II Listed Building 'Former Quaker Meeting House', 100m south-west of sub-Site 7A;

Grade II* Listed according to East Pye Solar

- Grade II* Listed Building 'Oaks Farmhouse', located 180m east of sub-Site 7L;
- Grade II* Listed Building 'Remains of Church of St Mary', 330m north-west of sub-Site 7D;
- Grade II* Listed Building 'Old Hall', 600m north of sub-Site 7D;
- Grade II* Listed Building 'The Old Rectory, 670m north-west of sub-Site 7D;
- Grade II* Listed Building 'Church of St Mary the Virgin', 680m north-west of sub-Site 7D;
- Grade II* Listed Building 'Remains of Church of St Mary', 760m north of sub-Site 7C;
- Grade II* Listed Building 'Oaks Farmhouse', 1.2km east of sub-Site 7J;
- Grade II* Listed Building 'Church of All Saints', 1.3km south-east of sub-Site 7L;
-

Grade I listed according to East Pye Solar

- Grade I Listed Building 'Church of St Margaret', 920m south of sub-Site 7B;

- Grade I Listed Building ‘Church of St Mary’, 935m north-west of sub-Site 7A;
- Grade I Listed Building ‘Rainthorpe Hall including Garden Wall with Gate and Gate Piers’, 1.6km north-west of sub-Site 7A. The Registered Historic Park and Garden ‘Rainthorpe Hall’ is located 1.5km north-west of sub-Site 7A, as associated with the Grade I listed building mentioned above;
- The Scheduled Monument ‘Camp in village’ is located 870m north-west of sub-Site 7A.

There are no Registered Battlefields within 2km of Site 7.

Saxlingham Nethergate

The name “Saxlingham” indicates ‘the home of the folk of Seaxe’ and was first mentioned in an Anglo-Saxon will of 1046, although evidence has come to light of an earlier Roman Villa to the north of the parish. Saxlingham Thorpe could have been a later Danish/Viking settlement, as the names suggest or English, since ‘thorpe’ means a ‘subsidiary settlement’. Indeed Saxlingham Thorpe was formerly ‘Uppergate’ as distinct from Saxlingham Nethergate which derives from the old English for “Lower Street”. The part of the village now known as Saxlingham Green has always been part of Saxlingham Nethergate, and was known as “Eastgate Green” at least as late as 1871.

Saxlingham Green probably developed as a typical ‘green village’ as a settlement of small farms surrounding a green on which all had common rights. It probably began as a later medieval ‘hiving-off’ from the original village, the initial clearing of The Green itself being carried out communally.

The 20th Century has seen the increased popularity of the area as a prime commuter location lying as it does in attractive country surroundings only a few miles from Norwich and other major transport routes to the south. Many villages and hamlets lying south of Norwich have evolved in this way as the mobility of the car has encouraged commuting to major centres of employment. This trend has been accompanied by a gradual reduction in employment opportunities within the villages themselves and surrounding countryside.

The effect of these trends in the villages has been a gradual decline of the traditional infrastructure such as village shops, post office, pubs, and local industry connected to agriculture. House values have generally risen due to the attractiveness of the location to the extent that young people from the village itself can rarely afford the housing within it and so have to move away, leading to yet further reduction in things like leisure facilities.

Saxlingham Green provides a typical example of these trends. The results of the change in farming practice and major shifts in wealth have led to dramatic changes in property ownership. Most property is now owner occupied, cottages have been amalgamated and extended, farm houses generally no longer contain farmers, stables and barns have been converted and at the end of the 20th Century it is difficult to see how significant further development could be accepted without damaging the essential character of the area. The Saxlingham Green Conservation Area was first designated in 1973.

Character Assessment

Saxlingham Green is defined more by the natural elements in the landscape than by the buildings within it. While there are a number of fine historic buildings important in their own right, they are secondary elements and are often lost behind trees and hedges. Whilst the appraisal looks at the two elements separately, the essential character of the area is partly generated by the interaction of these two components.

Saxlingham Green occupies a plateau site to the south east of Saxlingham Nethergate, and is set amongst a rural agricultural topography of a dissected plateau typical of this part of South Norfolk.

Hempnall and its Setting

Hempnall is the largest of a series of small hamlets and villages located in a farming landscape approximately 9 miles to the south of Norwich, and about 2 miles east of the A140. The regular field system aligned on Pye Street is a notable feature in the landscape. It is located on a tributary of the river Tas where several roads join. There is also a system of footpaths which give access to the surrounding hamlets and villages. The presence of isolated settlements associated with commons is very characteristic of this part of Norfolk.

The core of the settlement appears to be the junction of Mill Road, Bungay Road and The Street with an open space at the meeting point, the stream crossing and the church. There are suggestions that this may have been the market site and possibly the site of a mill. The roads, especially The Street, appear characterised by scattered late medieval and post medieval farms, with infilling occurring through the 19th and 20th centuries to produce a linear settlement.

The village has developed a more nucleated settlement form mainly as a result of post-war estate development to the east of Broaden Lane and east of Field Lane. The village has also experienced significant infill development. Elsewhere in the parish, development has occurred in the form of isolated clusters of housing along Field Lane (south of the village), Lundy Green, Road Green, Silver Green and isolated ribbon development at Hempnall Green. The remainder of the parish displays a dispersed settlement pattern comprising individual dwellings and farmsteads.

The impact of the village from the north and west is subdued by the undulating landscape, the meandering roads and the presence of trees and hedges. From the south, the village is seen nestling in the water meadows, with roofs of the taller buildings breaking through the greenery.

From the west, the approach is more open and level and the tower of St Margaret’s Church is a prominent feature in the landscape. The village retains some local services and businesses within the centre, with a flourishing school and village hall, although two of the surviving public houses have been converted to dwellings.

Conservation Area Boundary

The parish of Hempnall contains 58 listed buildings of which 22 are currently within the Conservation Area. The current Conservation Area boundary is irregular in form. It contains the Street in its entirety, part of Mill Road and Bungay Road to the south and east. It also encloses part of the water meadows to the south of The Street and the playing field to the north, together with a section of Fairstead Lane and Broaden Lane which lie to the east of the village.

It is suggested that the boundary be reviewed by adding part of the farm buildings on Bussey's Loke and the field and extension to the churchyard opposite.

Street Patterns and Historic Grain

The historic core of the village focuses on The Street and is characterised by one plot depth development which is particularly noticeable on the south side with the water meadows behind.

On the north side the line is broken by the playing field and Bussey's Loke. The Street has good tree and hedge planting, especially along the road frontage which contributes to the rural character of the area. There are also subtle curves to the road which gently slopes from west to east thus creating interesting views and vistas, the eastern-most one eventually being terminated by St Margaret's Church. To the west The Street divides into Fairstead Lane, and Broaden Lane with the War Memorial marking the junction.

To the south, the buildings more tightly define Mill Road until it eases to the left at the approach to the main junction. Further east the character varies with earlier buildings close to the road while later ones lose the definition of the street by being set back.

The special character of the Conservation Area is derived from the setting of a variety of historic buildings in an attractive and varied street pattern set in a river valley landscape. Glimpses of the wider landscape can be seen through the gaps between buildings and beyond the major open spaces within the village. This contact with landscape coupled with the many mature trees and strong hedge lines, contributes to the character and appearance of the area.

In addition, there are numerous attractive screen walls, particularly around the churchyard and parsonage, which all add considerably to the townscape quality. The locations of buildings in relation to The Street is extremely varied and generates an interesting matrix of irregular and varied spaces.

The whole area is also criss-crossed by a network of footpaths and lanes which provide a degree of pedestrian "permeability" through the village and more modern pedestrian paths have been added to connect the new housing developments to the north of Broaden Lane and to the south of Field Lane.

Fairstead Lane

The 17th century Krons Manor marks the entrance to the area at the western end which is an attractive route lined with hedges and trees and the brick boundary wall to the house. The

converted barns add a touch of “order” and leads the view to the Parish War memorial at the junction.

The cottage to the east, Lower Croft beyond and the later houses across the road,contribute to the setting of the Memorial and the trees and hedges softens the effect. The impressive Thatched House and garage on the south side make a positive contribution.

Traditional Materials and Architectural Details

A range of traditional building materials and details typical of the South Norfolk area are found in the built fabric of Hempnall.

Roofs are mostly of red or black clay pantiles, but there are notable examples of thatch, slate while plain tiles remain on the old village hall and lead on the Church.

Walls are mostly brick, some colourwashed, with render, covering timber frame or clay lump.

The Church is in flint. The number of fine brick and flint walls is a particular feature of the area, with iron railings and gates adding to the interest.

Older sash or casement windows survive on the listed buildings but elsewhere many have been replaced with modern equivalents which lack the same interest and character.

Ground surface materials are generally tarmacadam.

In terms of street furniture the area around the village sign includes a traditional telephone kiosk and road sign but other cabinets and elements have been added in a random way.

The listed war memorial furniture lies on a green at the junction of The Street, Fairstead Lane and Broaden Lane.

Natural Character and Open Spaces

There are a number of open spaces, and trees which make an important contribution to the landscape quality of the Conservation Area, and these are indicated on map Townscape and Natural Character Map.

The important “green” open spaces can be listed as the school playing field to the north of The Street, St Margaret’s Churchyard, the grazing land to the north of the village hall and the triangle of space containing the War Memorial lying to the west. The water meadows play a less obvious role, but the trees are valuable as a backcloth to the buildings on the south side of the street.

The potentially important open space at the junction of The Street with Mill/Bungay Roads is dominated by a car dealership garage adjacent to the bridge.

The presence of mature trees, hedges and areas of grass all add greatly to the rural character of the area. There are particularly fine mature trees at the eastern end of The Street and at the start

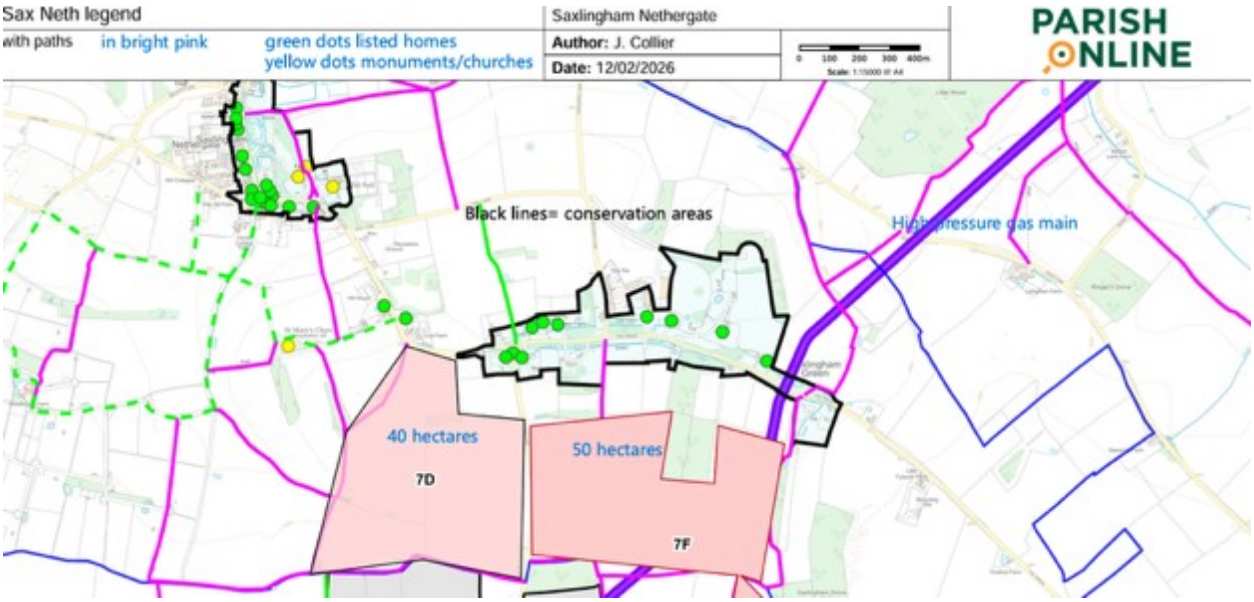
of Fairstead Lane, within the churchyard and the large gardens of the listed farmhouses such as the Parsonage, Manor Farmhouse, the Hollies and Willows. There are also important hedges which form a green barrier to the roads especially at the eastern end of The Street but also along the Bungay Road. Most of the new infill development has been planned to enable most of the existing trees to survive and in many cases additional planting has been carried out.

But there is considerable scope for additional planting to replace trees lost over time.

The meadows have a particularly special landscape quality of mature trees and hedgerows following the line of the drainage ditches all in a setting of lush meadow grass. The sewage pumping station has been surrounded by evergreen planting which is at odds with the rest of the area.

10.1 Impacts to Conservation Area

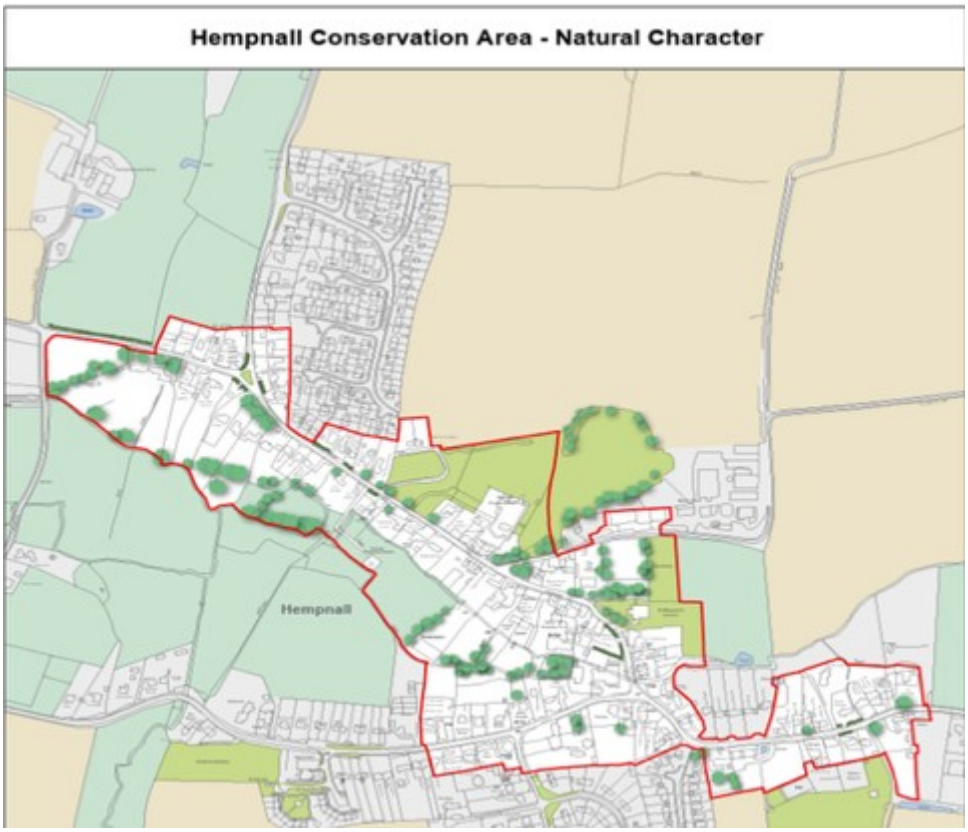
The proposed panels in sites 7D and F will dominate the southern boundary of the **Saxlingham Green Conservation Area** and destroy the attractive and unspoilt southern setting of the conservation area



Conservation Area of The Green, showing close proximity to Plots 7D and 7F

Hempnall contains 51 listed buildings that are recorded in the National Heritage List of England. Of these, there are one Grade I listed and fifty Grade II listed properties.

The Conservation Area is at the heart of the village with St Margarets the Virgin Grade I listed place of worship and the War Memorial



10.2 Impacts to Setting of Conservation Area

Saxlingham Nethergate

The relationship of the solar panels in sites 7D and 7F to the Saxlingham Green Conservation Area are all too clearly shown on the map in section 10.1 above. The approach to Saxlingham Green from the village of Hempnall will be through an avenue of solar panels that will destroy the current rural character of the road and replace it with an industrial landscape. The proposed sub-station on site 7F will inevitably be a prominent feature in the landscape further eroding the rural character of the setting of the conservation area.

Hempnall

Fairstead Lane extends into the Hempnall Conservation Area, with layout and buildings that contribute to the historic and rural village character. Views along the lane, mature planting and the mix of historic homes help define its special quality.



Travelling west along Fairstead Lane past two Grade II listed buildings, The Thatched House and Krons Manor, with associated barns now converted, the Conservation Area terminates at the junction with The Krons. Just 350m further down Fairstead Lane, solar panels would tower over both sides of the Lane, Sites 7B and 7C. This stark reality would totally dominate the landscape for a further 700m. The contrast over such a short distance would be extreme and would degrade the whole feel of the conservation area.



Krons Manor on Fairstead Lane located 450m from site 7B and 7C

10.3 Impacts to Grade 1 Listed Churches



St Margaret the Virgin, Hempnall at Grade I listed place of Worship

10.4 Impacts to Grade II* and Grade II Listed Buildings

Saxlingham Nethergate

There are 10 grade II listed buildings within the Saxlingham Green Conservation Area and a further 32 grade II listed buildings throughout the village, three of which are grade II*. Many of these properties are in very close proximity to the road and are timber framed with little or no foundations. Damage caused by vibration from Indivisible loads cannot be mitigated.

Below is a table of the buildings that will be affected by the route and, in some instances, the proposed solar land parcels.

Old Hall is a grade II* listed Manor House dating back to the 17th century on Church Hill with grounds abutting the road. It has a medieval moat one metre from the road and an ancient swimming lake approximately three metres from the road. The Building is listed under the Planning (Listed Buildings and Conservation Area) Act 1990 as amended for its special architectural or historic interest.

Photo of Old Hall below



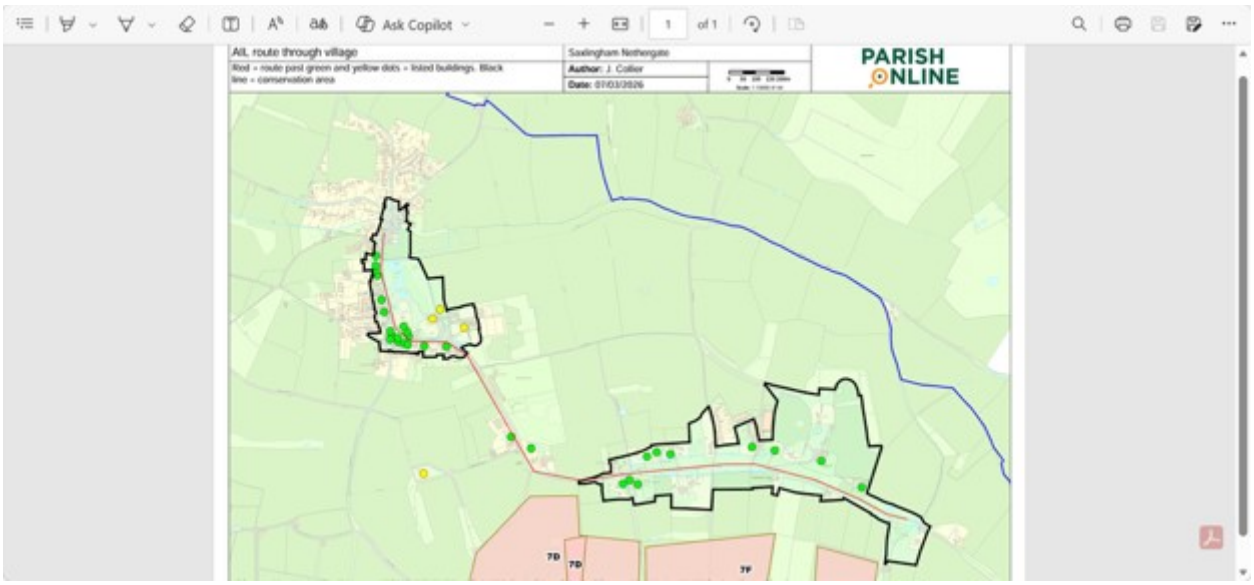
In addition to those on the green, along the proposed AIL route through the village are 24 Grade II listed buildings, most of which are timber framed, with some thatched and many with no foundations.

An example below of a listed building in very close proximity to the proposed AIL route.



Several unlisted properties look directly across to the two sites. At least one of these properties is timber framed clay lump dating back to C1730.

Three grade II listed properties are located at the south-west end of the Green and look directly across the proposed solar panels in 7D and 7F (less than 150 m).



Above is a map of the listed buildings that line the proposed AIL route through Saxlingham Nethergate.



The remaining 7 grade II listed properties within the Conservation Area are on the north side of the road running through Saxlingham Green.



The proposed panels on land parcel 7D will have a negative impact on setting of the Remains of the Church of St Mary, a Grade II* listed building located some 300m to the north-west of site 7D and Hill House, a grade II listed building, which is on the AIL route and also less than 500 metres to the north of site 7D.



Grid ref: TM2380 9660

The photo above shows Manor Farmhouse, a C16 Grade II listed timber framed dwelling (226644) on the junction of The Green and Broaden Lane. Both an AIL route and HGV route. The house is very close to the road and the bend in the road and would be heavily impacted on (noise, vibration, damage to road verges and possibly their property) during construction, with AIL route and a construction workers site within close proximity. The damage to this, and other properties cannot be mitigated. The panels will be visible to this property.

Manor Cottage (photo below) a C17 grade II listed timber framed dwelling (226625) on the north west corner of Broaden Lane and on the junction of The Green, will be heavily impacted on during construction due to the close proximity to the road and the bend. The construction workers site is to the south of this property in close proximity. The panels will be visible to this property.

The road between Manor Farmhouse and Manor Cottage is narrow with no verges, and on a bend.



The drone photo below shows the bend and narrow road between the two houses that will be subjected to heavy goods vehicles travelling on the right hand bend and the AIL route of the left hand fork onto the green (courtesy of Lockwood Chartered Surveyors).



Manor Farmhouse Barn a C17 grade II listed timber framed dwelling (226644) is on the north east side of Broaden Lane and would be heavily impacted on during construction with AIL route, and the panels will be visible on completion.

Saxlingham Hall is a C18 grade II listed (226638) nursing home on the Green. The residents and staff would be impacted on during construction due to the AIL route and upheaval of the green track which is an unclassified 3.5 metre wide road. This is much used for residents in wheelchairs and walkers. There is no facility for anyone to move aside when traffic approaches. Currently not an issue as it is a very quiet lane.

Queen Margaret Cottage (226643), Orchard Cottage (226642) and Green Farmhouse (226641) are all C16 Grade II listed timber framed dwellings towards the western entrance to The Green on the northern side of the lane, and will be impacted by the heavy traffic, noise, vibrations and the damage to the verges at the end of their drives.

Drone photo below of AIL route on The Green travelling east (Courtesy of Lockwood Chartered Surveyors).



Hempnall

Hempnall has fifty Grade II listed properties within the Parish boundaries

The impact to some of the properties as a result of the East Pye Solar scheme will be devastating as fields of solar will surround them on all sides or be impacted by the transport routes causing vibration and dirt to sensitive buildings

In addition to the visual impact, many of the listed buildings that will be directly impacted also rely on private water supplies for their drinking water as well sewage systems for waste.

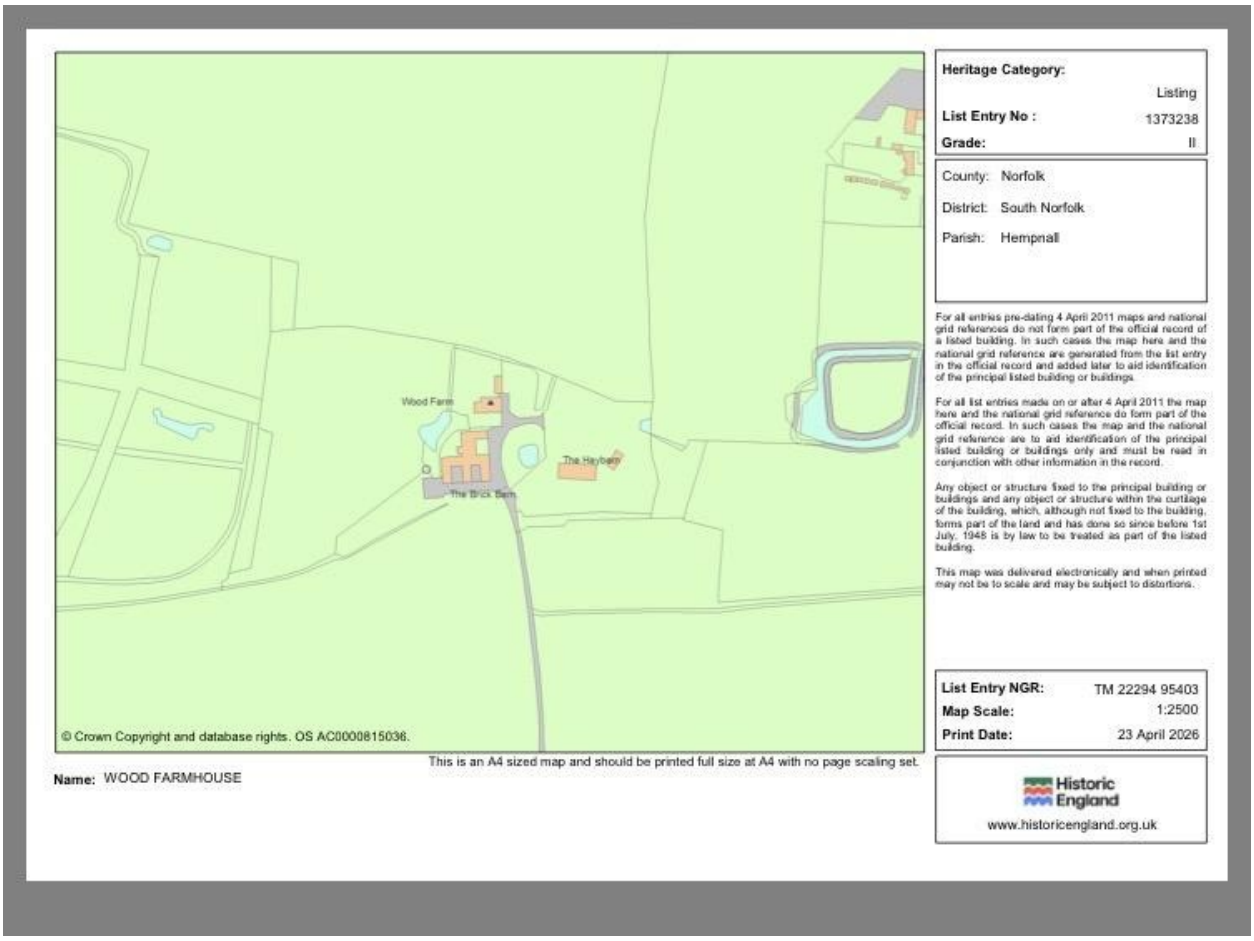
Wood Farmhouse is at the Sub-site 7C, is a grade II listed Farmhouse. (Heritage Statement/2/HLM/Sept 2021, https://docs.planning.org.uk/20250424/20/SV4EWLOQHJN00/covr4xwnjzmr193o.pdf).

TESCO 08:23 66%
Menu ZOOPLA Valuation My Home Sign in



Off-market

Wood Farm, Fairstead Lane, Hempnall, Norwich, NR15 2RF

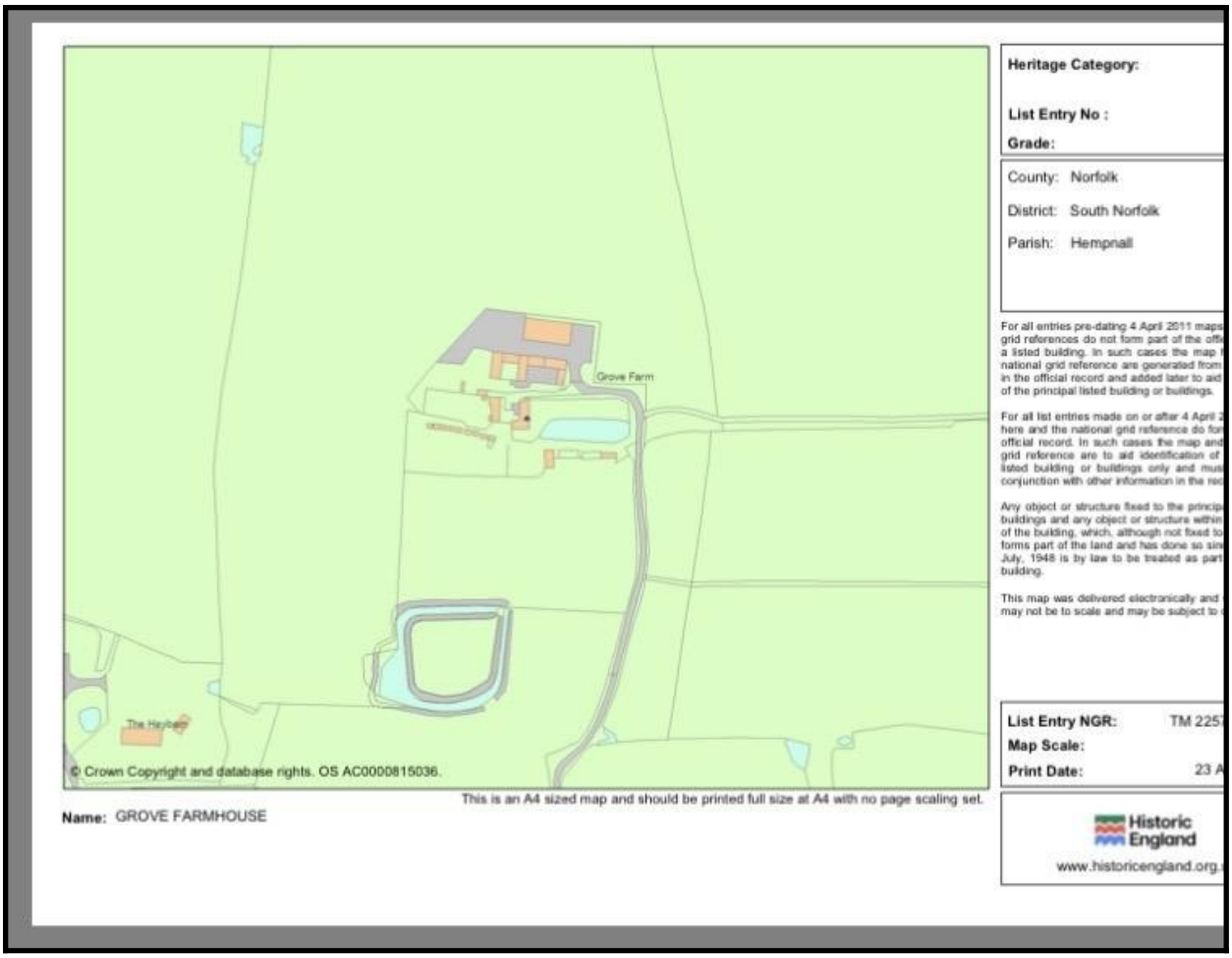


Historic England 04/2026

Grove Farm is located at land Site 7C it is a Grade II listed property.



https://historicengland.org.uk/listing/the-list/list-entry/1050330



Historic England 04/2026

Wood Farm and Grove Farm would be impacted significantly by the solar arrays altering their landscape setting and views from rural to industrial. The solar farm will significantly alter the rural character of the area. There would be vibrations when installing the solar equipment and impacts from heavy vehicles along single track rural country lanes which would additionally alter the area's character.

Limetree Farmhouse, Fairstead Lane will be surrounded by panels on Sub-Site 7A to the west and Sub-site 7C to the northeast and Sub-site 7B to the southeast.



Limetree Farmhouse, Fairstead Lane

Listed Buildings within the Parish of Hempnall:

- Park Farmhouse, Barondale Lane - Grade II
- Tye Cottage, Bungay Road - Grade II
- Thackery House, Bungay Road - Grade II
- The Willows, Bungay Road - Grade II
- Willows House, Bungay Road - Grade II
- Church Of St Margaret, Church Plain - Grade I
- Lord Nelson Public House, Church Plain - Grade II
- Grove Farmhouse, Fairstead Lane - Grade II
- Krons Manor, Fairstead Lane - Grade II
- Limetree Farmhouse Fairstead Lane - Grade II
- The Thatched House, Fairstead Lane - Grade II
- Wood Farmhouse, Fairstead Lane - Grade II
- Bush Farmhouse, Field Lane - Grade II
- Poacher's Cottage, Furze Road - Grade II
- The Firs, Furze Lane - Grade II
- The Haven, Furze Road, Grade II
- Home Farmhouse, Hempnall Green - Grade II

- Sycamore Farmhouse, Hempnall Green - Grade II
- The Grange, Hemphamm Green - Grade II
- Villa Farmhouse, Hempnall Green - Grade II
- Barn and Stable Range adjoining Three Feathers, Lundy Green - Grade II
- Chestnuts Farmhouse, Lundy Green - Grade II
- Grange Farmhouse, Lundy Green - Grade II
- Hempnall House, Lundy Green - Grade II
- Rose Cottage, Lundy Green - Grade II
- Three Feathers, Lundy Green - Grade II
- Townhouse Farmhouse, Lundy Green - Grade II
- Cottleston, Mill Road - Grade II
- Hempnall Mill Centre, Mill Road - Grade II
- The Chequers, Mill Road - Grade II
- The Poplars, Mill Road - Grade II
- Hempnall War Memorial - Grade II
- Moat Farmhouse, Road Green - Grade II
- Road Green Farmhouse, Road Green - Grade II
- Chestnut Farmhouse, Silver Green - Grade II
- Meadow Farmhouse, Silver Green - Grade II
- Silver Green Farmhouse, Silver Green - Grade II
- Yew Tree Farmhouse, Silver Green - Grade II
- Kirkstone, the Long House and Post Office, Church Plain - Grade II
- Manor Cottages, 1,2,3 and 4 The Street - Grade II
- Connaught House, The Street - Grade II
- Forge House, The Street - Grade II
- Lime Tree Cottage, The Street - Grade II
- Manor Farm Cottage, The Street - Grade II
- Manor Farmhouse, The Street - Grade II
- Parsonage, The Street - Grade II
- Pevensey House, The Street - Grade II
- Smithy Cottage and Priory Cottage, The Street - Grade II
- Stables North of Parsonage, The Street - Grade II
- The Hollies, The Street - Grade II

Lower Tasburgh

There are 33 listed properties in the parish of Tasburgh including the Grade I listed St Mary's Church however most are to the west of the A140.

Those directly impacted by East Pye Solar are within a few hundred metres of sub-site 7A which elevates so will be visible all year round including when trees are in leaf.

- Meadow View, Quaker Lane - Grade II
- Barn and Stables south of Meadow View, Quaker Lane - Grade II

- Former Quaker Meeting House, Quaker Lane - Grade II
- Tramps Hall, Fairstead Lane - Grade II
- Barn and Stables, Fairstead Lane - Grade II
- Hill Farmshouse, Ipswich Road - Grade II


View from the A140 looking East
7C


Photo taken Fairstead Lane, SW boundary of 7A looking NE. Site elevates towards NE of plot where visible tree line is reduced due to elevation.


Taken from the Countryman Pub, A140
facing East
7A


Stood on Fairstead Lane at the
south west boundary of 7A looking
towards the A140
The Countryman Pub
Text

10.5 Impacts to Listed Buildings

Extracts from [redacted] independent Heritage Impact Assessment report (inclided in BEPS WR Appendix)

6.38 **Sites 7A – _7C** propose several areas of solar PV arrays on a number of parcels of land
6.39 The **Countryman Public House** is a prominent building on the A140 Long Stratton Road with its wider setting to the east formed by the undulating and gently rising farmland of the Tas Rural River Valley. There are views to the east from the building towards site 7A where solar PV arrays are proposed as well as views from the site across open land towards the building to the west. Although there is likely to be some visibility of the solar panels in distant views, there are no historic connections between the use of the land and the building as a public house which is not considered to make any key contribution to its significance. It is therefore agreed that the proposed development will not have an adverse impact on its significance.
6.40 **Hill Farmhouse** has a prominent location at the junction of the A140 and Fairstead Lane. There are several ancillary farm buildings to the north and views to the east where the surrounding open and undulating farmland within the Tas Rural River Valley forms its setting. There are also views towards the west across the open farmland where the farmhouse and its ancillary buildings are appreciated within a rural landscape setting. A solar PV array is proposed on sub-site 7A on existing open land which rises to the east of Hill Farmhouse. Paragraph 9.43 of the submitted impact assessment states that *'There are no views of site 7A from Hill Farmhouse with views*

towards the farmhouse restricted to only its roofline from a limited range within sub-site 7A from where this does nothing to demonstrate the farmhouse significance. It is considered that the scheme will cause no harm to the significance of Hill Farmhouse'. However, an assessment of the setting of Hill Farmhouse shows that there are views towards the east from the front of the building along the access driveway where the rising ground of site 7A can be seen in conjunction with the farmhouse and outbuildings (see photos 96 & 97) . As a consequence of historic associations between the farmhouse and this surrounding open agricultural land which forms its setting, this positively contributes to its overall significance. The solar panels will be visible on the skyline and taking account of their scale, height and movement will introduce incongruous, industrial features on land which form its setting. It is therefore concluded that this will cause harm to the significance of Hill Farmhouse which is considered to be less than substantial and the lower end of the scale.

6.41 **Tramp's Hall** and **Barn immediately east** are located in a secluded position, surrounded by mature trees and vegetation. The barn is seen in views along Fairstead Lane, but the hall is set well back within the site and is only glimpsed when passing the entrance driveway. There are distant views across open farmland towards the west where the roof of the barn is seen in the wider rural setting. However, there are no views towards site 7A from either of these buildings and it is agreed that the proposed development will not have an adverse impact on the significance of the hall or the adjacent barn.

6.42 The **Former Quaker Meeting House** occupies a secluded position on the south side of Fairstead Lane and is mainly appreciated in views from the entrance driveway on Quaker Lane. Although the proposed solar panels are in close proximity, it is only the roof that is visible in views towards the south which is seen against a backdrop of mature trees and it is agreed that the proposed development will not result in any adverse impact on its significance.

6.43 **Wood Farmhouse** is experienced within a wide, open landscape setting, particularly the open farmland to the north and south, which positively contributes to its significance due to the historic relationship between the use of this land and the traditional rural farmstead buildings. A solar PV array is proposed on site 7C on land to the north of Wood Farmhouse. Paragraph 9.49 of the submitted impact assessment states that *'due to the retention of the open farmland closest to the farmhouse, the solar panels will not be prominent within any views from or of Wood Farmhouse and they will not encroach into the immediate setting of the listed building'*. The assessment also states that *'the proposed planting in the form of woodland planting, grassland borders and linear screening between the listed building and the solar PV arrays will in the medium to long term, effectively remove any views of these elements from the heritage asset'* _and concludes that *'the scheme will cause no harm to the significance of Wood Farmhouse'*. However, even though there is a degree of setback between the farmhouse and the proposed solar panels, taking account of their height

and movement, they will be visible on the horizon in views from, as well as towards, the farmhouse. Furthermore, the proposed mitigation measures in the form of planting, will not provide sufficient screening of the panels for a considerable number of years and more importantly, will have an adverse impact on the setting of the farmhouse by creating a sense of enclosure and severing the historic visual relationship with the open farmland beyond. It is therefore concluded that this will cause harm to the significance of Wood Farmhouse, which is considered to be less than substantial and the lower end of the scale.

6.44 **Grove Farmhouse** is also experienced in a rural agricultural setting with open farmland to the north and south, pond to the east and several attractive outbuildings to the north and west. A solar PV array is proposed on site 7C on land to the north of Grove Farmhouse, with the scheme being set back and adjoining land being retained as farmland. Paragraph 9.51 of the submitted impact assessment states: *'It is possible that solar PV arrays within sub-site 7C may be visible to the north-east of Grove Farmhouse. However, these views will be glimpsed between the existing plantation to the east and the new woodland planting to the north. There will be a buffer of new grassland to the east and north-east that, although not screening the solar PV arrays from view, will soften the prominence of any built e;ements within the scheme.' Paragraph 9.52 states: 'There will be minor alterations to the setting of Farmhouse through the presence of a small section of the scheme in views to the north-east of the property. The majority of views from and of the listed building will remain unchanged. Elements of the listed building's setting that inform its significance are generally limited to the immediate grounds of the farmhouse including its yard and associated structures, although the wider agricultural surroundings provide a connection to the historic and current context of the listed building as a farmhouse and do somewhat highlight the rural nature of the building's design and intended purpose. However, it is not considered that the wider setting informs the significance to any meaningful degree and the presence of a small section of the scheme in one wide vista from the property will not result in harm to the heritage asset's significance or the ability to appreciate this.'*

6.45 The setting of Grove Farmhouse is wide and positively contributes to its significance due to the historic relationship between the use of the surrounding land and the traditional rural farmstead buildings. Furthermore, it is important to emphasise that this has remained unchanged and undeveloped over time. The submitted assessment is therefore considered to have undervalued the contribution of the setting of Grove Farmhouse to its overall significance. Even though the open farmland closest to the farmhouse is to be retained, taking account of the height and movement of the proposed panels, visibility of such alien and industrial structures is considered to be harmful to its open agricultural setting. Reference is also made to new woodland planting to the north and such mitigation measures are also considered to be harmful by severing the historic visual relationship with the open

farmland beyond. It is therefore concluded that the proposed development within site 7C will cause harm to the significance of Grove Farmhouse, which is considered to be less than substantial and the lower end of the scale.

6.46 **Sites 7D – _7H** propose several areas of solar PV arrays on a number of parcels of land, along with a 132kV substation within site 7F. **Manor Cottage**, **Manor Farmhouse** and **Manor Farmhouse Barn** are located to the north of sites 7D and 7F, and form an important group of Grade II listed buildings at the west entrance to Saxlingham Green Conservation Area.

6.47 **Manor Cottage** located in a prominent corner position, is appreciated in many views to the south, west and north and as a former farmhouse there are historic associations with the open farmland which forms its setting to the south and positively contributes to its significance. There are open views across this farmland from the boundary of the cottage (see photo 115). Solar PV arrays are proposed on site 7D to the south and site 7F to the south-east. Paragraph 10.45 of the submitted impact assessment states *'Embedded mitigation in the form of setbacks will ensure there is no intervisibility between Manor Cottage and built elements of the scheme within sub-site 7D and beyond. The scheme will result in no harm to the Listed Building.'*

6.48 **Manor Farmhouse** is also located in a prominent corner position with key views of the building to the west and to the north-east with open farmland to the south forming its setting and the building being seen in views towards the north across the open landscape (see photo 119). Also a former farmhouse, there are historic associations between the building and the surrounding land which forms its setting, positively contributing to its significance. Solar PV arrays are proposed on site 7D to the south-west and site 7F to the south. Paragraph 10.43 of the submitted impact assessment states *'Although there is no intervisibility between site 7 and Manor Farmhouse, it is situated in close proximity to sub-site 7D. Due to this, setbacks have been included in the design of the scheme and the part of this sub-site closest to the listed building will remain as open land. The nearest built elements of the scheme (solar PV arrays) will be situated at a distance of nearly 300m to the south-west and will not encroach into the setting of the farmhouse. There will be no harm to Manor Farmhouse's significance.'*

6.49 **Manor Farmhouse Barn** adjoins the farmhouse and historically would have been part of the farmstead. Although occupying a slightly more secluded position there are views of the roof and gable end in views to the east and looking north from the open farmland, with visibility increasing during the winter months. Solar PV arrays are proposed on site 7D to the south-west and site 7F to the south. Paragraph 10.44 of the submitted impact assessment states *'The setbacks incorporated into the design of the scheme within sub-site 7D will ensure that no solar PV arrays or other built elements will be visible from the barn and there will be no impact on its setting.*

Therefore, it is considered that there will be no harm to the significance of the listed barn'.
6.50 Although the area of site 7D closest to Manor Cottage, Manor Farmhouse and Manor Farmhouse Barn is to remain undeveloped, the conclusions noted in paragraphs 6.47 to 6.49 above, focus on views towards the site looking south from these listed buildings. However, when they are approached towards the north along Broaden Lane, their setting is wide and open, with the buildings being visible on the horizon amongst surrounding trees and vegetation, with visibility increasing in the winter months. Taking account of the height and scale of the proposed solar panels, which are intended to be located immediately to the west of Broaden Lane, the ability to appreciate these buildings in their wide, open and undeveloped agricultural setting will be lost, being obscured by alien and industrial features in a rural landscape. Furthermore, paragraph 10.48 of the impact assessment refers to additional tree and hedgerow planting and concludes that once matured, built elements of the scheme within these sub-sites will be effectively screened from surrounding heritage assets. However, apart from taking a considerable number of years to effectively screen the solar panels, these mitigation measures in the form of planting will in themselves have an adverse impact by creating a sense of enclosure and severing the visual relationship between the buildings and their open setting. It is therefore concluded that the proposed development will have a harmful impact on the significance of Manor Cottage, Manor Farmhouse and Manor Farmhouse Barn, which is considered to be less than substantial at the lower end of the scale.
6.51 As a former farmhouse, **Hill Cottages** are mainly appreciated in views towards the east but they are also seen in views across open farmland to the west and to the south, which forms their wider setting (see photos 122-125). Solar PV arrays are proposed on site 7D to the south of the property. Paragraph 10.46 of the submitted impact assessment states *'Setbacks have been designed into the perameters of sub- site 7D and the northernmost field, in closest proximity to Hill Cottages, will not contain any solar PV arrays or other built elements. As such, there will be no visibility of any parts of the scheme beyond the new landscaping initiatives in this field and there will be no impact to the Listed building's significance. There will be no harm to the listed building resulting from the scheme'.* Even though the area closest to Hill Cottages is to remain open and undeveloped, taking account of the height and movement of the solar panels, they will be visible in views along with the property, particularly to the south-west, introducing alien and industrial features within their rural agricultural setting. Any mitigation measures including tree and woodland planting will take a considerable number of years to effectively screen the solar panels and will also have a negative impact by creating enclosure and severing the visual relationship between the building and the surrounding open setting. It is therefore concluded that the proposed development will have a harmful impact on the significance of Hill Cottages, which is considered to be less than substantial at the lower end of the scale.

6.52 **Hill House** is slightly set back from the road with its chimneys and roof visible in views to the north (see photo 126). It is mainly appreciated from its setting to the west, with the surrounding open and undeveloped farmland to the south forming its wider setting. Although it is separated from areas of open farmland by adjacent buildings to the south, as the taller and more prominent structure, there is intervisibility between the building and the site of the proposed solar panels, with the degree of visibility increasing during the winter months. Paragraph 10.47 of the submitted impact assessment states that no built elements of the scheme will be visible from Hill House and that there will be no harm arising from the scheme on its significance. However, taking account of the height and movement of the solar panels, they will be seen in views from Hill House to the south and from the site in views to the north towards Hill House. introducing alien and industrial features within this rural agricultural setting. Any mitigation measures including tree and woodland planting will take a considerable number of years to effectively screen the solar panels and will also have a negative impact by creating enclosure and severing the visual relationship between the building and the surrounding open setting. It is therefore concluded that the proposed development will have a harmful impact on the significance of Hill House, which is considered to be less than substantial at the lower end of the scale.

6.53 **Holly Cottage** was scoped out of further assessment in the submitted heritage statement as it was considered that it would not be impacted by the proposed development. However, it is located at the east end of the Saxlingham Green Conservation Area in an open setting where it is set back from The Green with open and undeveloped farmland to the north and south forming its wider setting (see photos 127-130). Solar PV arrays are proposed on site 7F on existing open farmland to the south of Holly Cottage. There are panoramic open views looking west where this site is visible along with Holly Cottage with intervisibility between the two increasing during the winter months. Taking the height and movement of the proposed solar panels into account, they will introduce alien and industrial features as a visual intrusion into this rural setting. Mitigation measures including tree planting will take a considerable number of years to effectively screen the solar panels and will also have a negative impact by creating enclosure and severing the visual relationship between the building and the surrounding open setting. It is therefore concluded that the proposed development will have a harmful impact on the significance of Holly Cottage, which is considered to be less than substantial at the lower end of the scale.

6.54 **Saxlingham Green Conservation Area** has a distinctive green and rural character with a strong sense of intimacy and enclosure formed by mature trees and vegetation with occasional buildings scattered along the road or set back from the open green spaces. There are occasional open views, particularly out towards the south, from within the Conservation Area, which provide important visual connections with the open and undeveloped countryside which surrounds and forms the setting of the Conservation Area (see photos 131 & 132). Approaching the Conservation Area

from the south along Broaden Lane from Hempnall, there is a distinct change in character, from a strong sense of openness provided by undeveloped farmland, to a cluster of buildings which create a sense of arrival and define the west entrance to the Conservation Area (see photo 133). Paragraph 10.39 of the submitted impact assessment refers to the proposed mitigation measures and states that *'These proposed landscaping initiatives will ensure that the scheme does not encroach onto the setting of Saxlingham Green by obscuring it from views within the Conservation Area itself. This will therefore maintain the rural agricultural character and appearance of the Conservation Area. The woodland and grassland planting will improve the surrounding outlooks to the west of the Conservation Area and will render impacts to the setting as negligible once matured.'* Paragraph 10.41 concludes that the scheme will cause no harm to the character and appearance, and/or significance, of Saxlingham Green Conservation Area. However, taking account of the height and location of the proposed solar panels within site 7D to the south-west of the Conservation Area, not only will the proposed planting take many years to provide any effective screening, but more importantly, it will sever the visual relationship between the Conservation Area and the open and undeveloped surrounding land which forms its setting and will result in the loss of the sense of arrival when approaching from the south. Solar panels are also proposed to the south of the Conservation Area within site 7F and although there is no specific reference to this in the submitted impact assessment, mitigation in the form of planting will also result in a harmful impact by severing the visual relationship between the Conservation Area and the surrounding open land in views out to the south. It is therefore concluded that the proposed development of sites 7D and 7F will have a harmful impact on the setting of Saxlingham Green Conservation Area which is considered to be less than substantial at the lower end of the scale.

6.55 **Sites 7I – _7L** proposes several areas of solar PV arrays on a number of parcels of land. **Oaks Farmhouse** is a high status, Grade II* listed building originating from the 16th century located in an isolated rural position to the east of site 7L, surrounded by open land which forms its setting and has historically remained undeveloped. Solar panels are proposed in relatively close proximity on existing open land on the west side of Woodton Road which is bounded by a low hedgerow. The submitted impact assessment acknowledges that sub-site 7L does contribute to the significance of Oaks Farmhouse and that there is intervisibility between the site and the listed building, but concludes at Paragraph 11.17 that the scheme will result in no harm to this heritage asset, noting that although there will be views of the solar PV arrays, proposed planting with screen them from the farmhouse once matured after approximately 15 years. However, although surrounded by some mature trees and vegetation, there are views out from the building across the surrounding open land to the south and to the west, along with views of the building towards the north and the east, with the degree of visibility increasing during the winter months (see photos 134-139). Taking account of the scale and height of the solar panels and their proximity to the west of the farmhouse, they will be highly visible in views from and towards the building, introducing alien and incongruous, industrial features within its setting, standing above the existing hedgerow which forms the site boundary. Furthermore, it is noted that proposed augmentation of existing boundary planting will not effectively screen the panels until maturity after around 15 years. However, it is also considered that the proposed mitigation measures, will in themselves have a harmful impact by severing the visual relationship between the farmhouse and the surrounding open land. Taking account of the high status of the building and its distinctly rural setting which has remained undeveloped for centuries, it is concluded that the proposed development of site

7L will have a harmful impact of the significance of Oaks Farmhouse. This is considered to be less than substantial, but at a moderate level.

10.6 Impacts to Pre-Modern Agricultural Landscape

Site 7 is made up of mulitiple semi-open and linked agricultural fields growing a rotation of crop including various cereals (wheat, barely, rye and corn) and oil seed rape.

These fields rely on circular nutrient management like using animal manure for fertiliser and incorporating fallow periods or planting recovery crops like pasture grass.

The fields have limited borders with some mature hedging, areas of woodland or orchards, water culverts and trees however are mainly open vistas visible from the A140, Hempnall roundabout, B1527, and the surrounding villages affected by site 7.

Due to hedging, wooded areas, trees lines, unfarmed bands around fields, natural ponds, unnamed water courses, the landscape supports high biodiversity and nature habitats.

Many 'at risk' or declining birds and protected mammals can be found on all sub-sites and across the Cable Route Corridors.

Countryside Stewardship areas:

Priority area for lapwing
Farm wildlife package area
Countryside Stewardship water quality area - high priority
Phosphate issues high priority
Climate change vulnerability buffer - medium and low
Arable assemblage farmland birds 3
grey partridge
turtle dove
lapwing
Environmental stewardship agreement entry level and higher level
Higher level stewardship target - Norfolk river valleys
Great Crested Newt strategic opportunity area

Various deer, hares, bats, owls, skylarks, lapwings, turtle doves and many other song birds and mammals rely on the open wildlife corridors and natural habitats for nesting, protection and feeding.

Industrialising these fields will not just change the natural vista of the rural landscape but will remove the wildlife corridors of free roaming mammals and the natural nesting environments for protected birds like the skylark that are found on all the fields and protected across the area.

Industrialising these fields will also remove a sense of belonging, remove the sense of rural living chosen by the people that live and work here.

Landscaping the Scheme to screen the panels and infrastructure will itself change the character of these Claylands.

Changing these fields from agricultural to industrial will also conflict with the Conservation Areas of local villages and the Claylands that are keeping the sense of belonging to the rural environment.

Site 7 is within the boundary of five parishes and acts as an area of tranquility.

Industrialising Site 7 across the vast acreage it covers will effectively remove this area as a significant rural environment.

This cannot be mitigated against.

10.7 Community Identity and Well-Being Rooted in Cultural Heritage and Historic Landscape

The community across Site 7 including the five villages that are impacted by the development of Site 7 was born out of agriculture and rural environments.

The Long Stratton area is surrounded by small hamlets and villages using the local facilities and forming the greater community of this developing village into a town.

However the whole area has been shaped by:

- Centuries-old agricultural landscapes;
- Historic field patterns and ancient hedgerows particularly seen across cable route 4;
- The visual presence of Grade I listed Churches often with round towers synonymous with East Anglia where bricks were in short supply so right angles were not possible to build;
- The Roman Pye road (A140) offers centuries of history and archaeological finds;
- Generational farming of land use;
- Shared cultural history of working the land;
- A community of multi generations that support each other and come together to celebrate events across the annual calendar including the Remembrance Day parades to the village war memorials.

This is not just a place where people live and the fields are not just scenery.

Rural communities are embedded far more than those in cities and larger towns.

They possess a distinct sense of identity, characterised by a deep, emotional connection to a specific, often intergenerational place.

The identity is built upon shared values, local traditions and agricultural heritage.

Chapter 11: Transport and Access

Introduction

The East Pye Solar is proposed to take 24 months at least to complete construction and with that includes considerable disruption across local road networks, footpaths and bridleways.

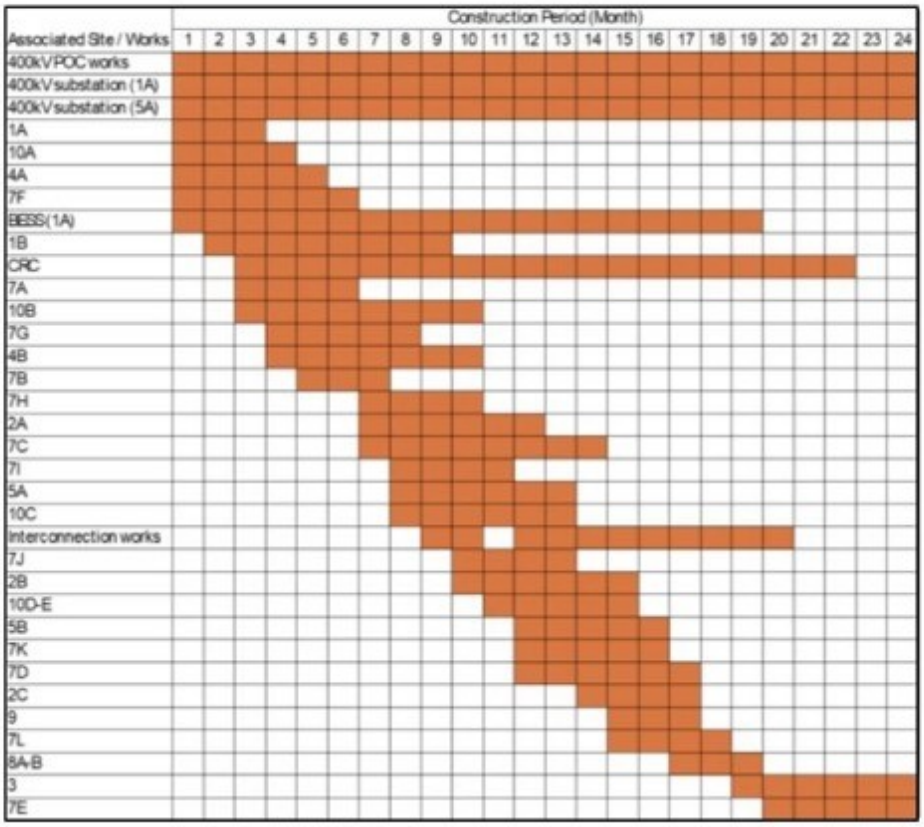


Figure 2.1: Indicative Construction Programme

2.5.2 The core construction working hours (not including start-up and shut-down works) are defined as:

- Monday to Friday from 07:00 to 18:00 (daylight hours permitting);
- Saturday from 08:00 to 13:30 (daylight hours permitting); and
- No Sunday or Bank Holiday working unless crucial to construction (for example, for trenchless crossings which must be continuous activity and the arrival and departures of workers and the delivery of AIL) or in an emergency.

2.5.3 Where practicable, construction deliveries would be co-ordinated to avoid HGV movements during the traditional peak morning (08:00-09:00) and peak afternoon (17:00-18:00) hours. Some activities may be required outside of these times such as the delivery of AIL, concrete pours for foundations, night working for cable construction works in public highways and/or trenchless crossing activities.

11.1 Impacts on Road Network

East Pye themselves admit that the impact will have a negative effect. But their 'temporary impact' will be across the construction time of the scheme of at least **24 months**, on multiple local roads, especially as the A140 and B1527 will be used as main haulage access routes for the northern section of the scheme and the A140 for the whole of the scheme.

Construction Phase: Temporary increases in traffic volumes, particularly from HGVs and AILs transporting materials and equipment, will lead to congestion, increased wear and tear on local roads, and disruption to access for local residents and businesses. There will also be short-term detrimental road safety associated with construction traffic movements.

Operational Phase: As the panels and infrastructure have a limited life expectancy, they will require replacing during the 60 year lifespan of the scheme.

Panels will require changing 2-3 times, as will the batteries. Local residents therefore can expect further disruption, with predictions of 100 two-way HGV vehicles journeys across the scheme during replacement approximately every 15 years, across the scheme with increased haulage and AILs manoeuvring the quiet, narrow country lanes.

Decommissioning phase: similar to the construction phase, decommissioning activities will result in temporary increases in traffic volumes and associated disruption to local access and road safety for up to 24 months.

Table 11.13: Construction Vehicle Routeing - Solar PV Sites

Site Group	Accesses Used	Proposed Access Route
1A-D and BESS	A01, A02	**From A140/B1134 roundabout**: westbound on B1134, northbound on A01/A02. Depart on same route in reverse.
2A-C	A07, A08, A10	**From A140 (for vehicles from south)**: northbound on A140, access on A07/A08/A10 via existing laybys. Depart site: northbound on A140, execute u-turn on roundabout at Long Stratton Bypass / Parker's Lane, southbound on A140. **From A140 (for vehicles from north)**: southbound on A140 Norwich Road, execute u-turn on A140/B1134 roundabout, northbound on A140, access on A07/A08/A10 via existing laybys. Depart travelling northbound on A140.
3	A34	**From B1332**: westbound on B1527, southbound on Alburgh Road and Spring Lane, west onto A34.
4A	A19	**From Hempnall Roundabout**: south-west off exit of roundabout onto A19. Depart on same route in reverse.
4B	A20	**From Hempnall Roundabout**: eastbound on B1527, south onto A20. Depart on same route in reverse.
5A-B	A23, A24, A25, A26	**From Hempnall Roundabout**: eastbound on B1527, south onto A23/A24, for A25/A26 continue eastbound on B1527, southbound on The Street and west onto A25/A26. Depart on same route in reverse.
7A-F	A28, A29, A30, A40, A42	**From A140**: south on Hempnall Roundabout onto Site 4A via A19, *await call-forward to site*, eastbound on Hempnall Roundabout and B1527, northbound on The Krons, westbound on Fairstead Lane, north onto *A29/31*. Internal haul route to Sites 7A-F – cross Broaden Lane via A40 for access to 7E-F. For southern portion of 7D, southbound on Broaden Lane and west onto A42. Depart on same route in reverse.
7G-H	A44, A45, A57	**From B1332**: westbound on B1527, northbound on Shotesham Road and Woodton Road, west onto A57, internal haul route through 7K and 7J, exit on A45, southwest on Fylands Road, Bussey's Loke east/west on A44. Depart on same route in reverse.
7I-J	A45, A57	**From B1332**: westbound on B1527, northbound on Shotesham Road and Woodton Road, west onto A57, internal haul route through 7K and 7J, cross on A45 for access to 7I. Depart on same route in reverse.
7K-L	A57, A58	**From B1332**: westbound on B1527, northbound on Shotesham Road and Woodton Road, west onto A57/A58. Depart on same route in reverse.
8A-B	A52, A50, A49	**From B1332**: westbound on B1527, northbound on Shotesham Road and Woodton Road, westbound on Heath Road, southbound on Baxter's Lane, west on A52. For access to 8A, west on internal haul route through 8B, exit off A50 onto Market Lane, south onto A49. Depart on same route in reverse
9	A56	**From B1332**: westbound on Littlebeck Lane, north onto A56. Depart on same route in reverse.
10A-E	A61, A62, A65	**From B1332**: eastbound on Harvey Lane, south onto A61/A62, for A65 continue eastbound on Harvey Lane, northbound on Seething Road, west onto A65. Depart on same route in reverse.

Daily Vehicle Count for Site 7

Site 7A-C Daily vehicles

5 HGVs daily (at peak) arrive and 5 depart = 10 journeys

18 Other vehicles daily (at peak) arrive and 18 depart = 36 journeys *

*where will they park?

Site 7D-F Daily Vehicles

6 HGVs daily (at peak) arrive and 6 depart = 12 journeys

21 Other vehicles daily (at peak) arrive and 21 depart = 42 journeys*

*where will they park?

Site G-J Daily vehicles

3 HGV's daily (at peak) arrive and 3 depart = 12 journeys

11 Other vehicles daily (at peak) arrive and 11 depart = 22 journeys*

*where will the park?

Site 7K-L Daily Vehicles

3 HGVs daily (at peak) arrive and 3 depart = 6 journeys

9 Other vehicles (at peak) arrive and 9 depart = 18 journeys*

*where will they park?

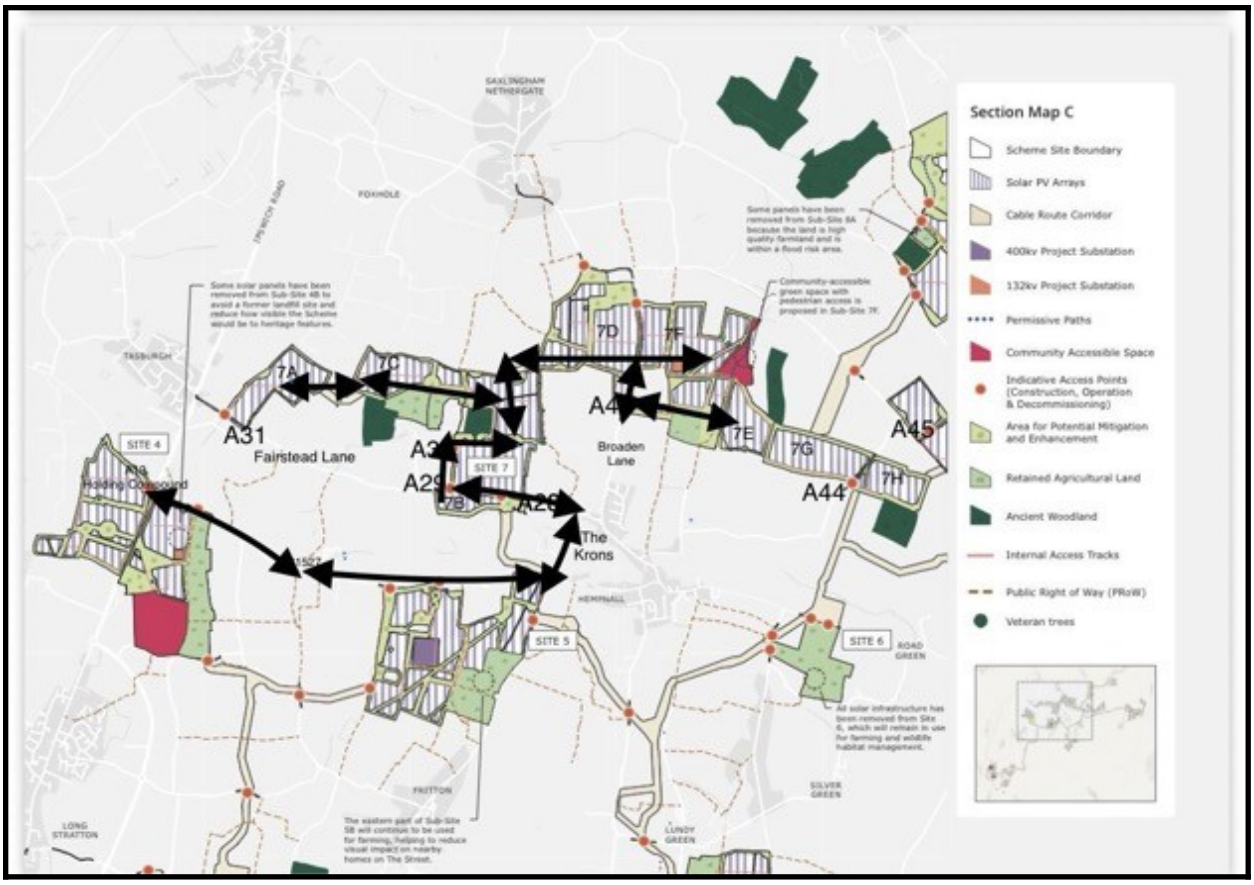
Total HGVs is 17 arrive and 17 depart = 34 journeys

Total Other vehicles is 59 arrive and 59 depart = 118 journeys

Site 7A-F Route - using Hempnall Footpath 2

- using Access points A28, A29, A30, A40, A42
- From A140: south on Hempnall roundabout onto Site 4A via A19;
- Await call-foreward to site;
- Eastbound on Hempnall Roundabout to B1527;
- Northbound on The Krons;
- Westbound on on Fairstead Lane;
- North onto A29/A31;
- Internal haul route to Sites 7A-F;
- Cross Broaden Lane via A40 for access to 7E-F;
- FOr southern portion of Site 7D, southbound on Broaden Lane and west onto A42;

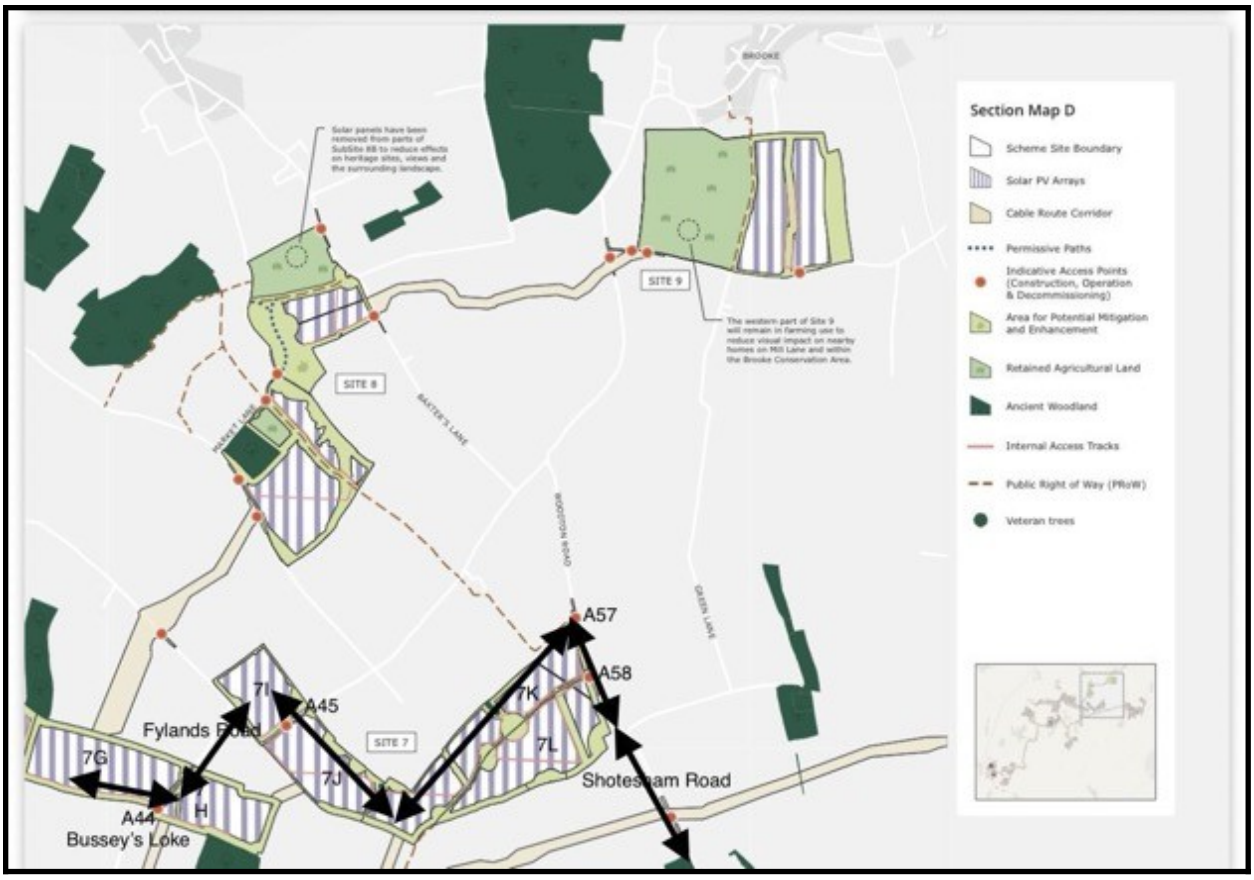
- Depart on same route in reverse.



Map shows route for access to Sites7A-F using internal haul road and in reverse

Site 7G-H

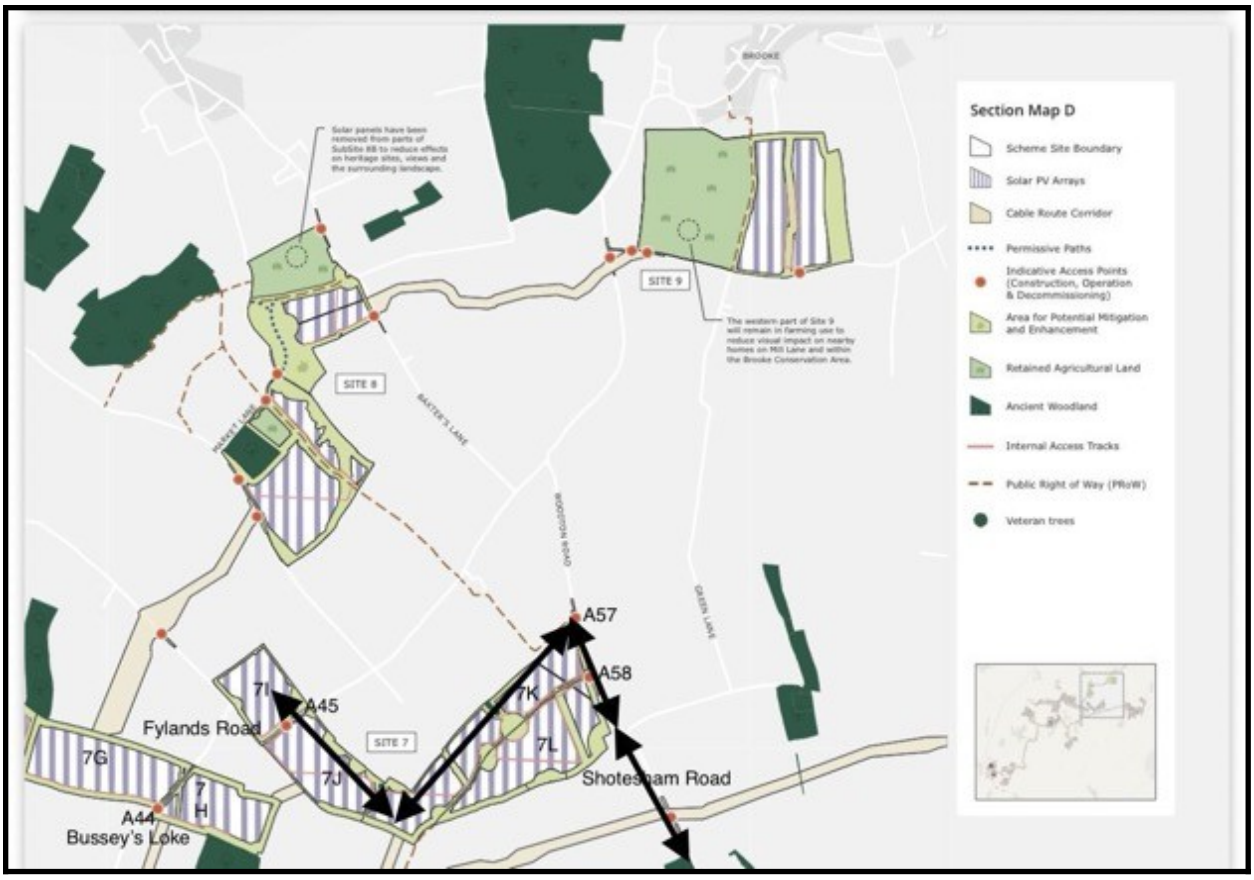
- Using Access points A45, A57;
- From B1332, westbound on B1527;
- Northbound on Shotesham Road and Woodton Road;
- West onto A57;
- Internal haul route through 7K and 7J;
- Exit on A45;
- Southwest on Fylands Road, Busseys Loke;
- east/west on A44;
- Depart on the same route in reverse.



Map shows route to for access to Sites 7G-H using internal haul road and in reverse

Site 7I-J

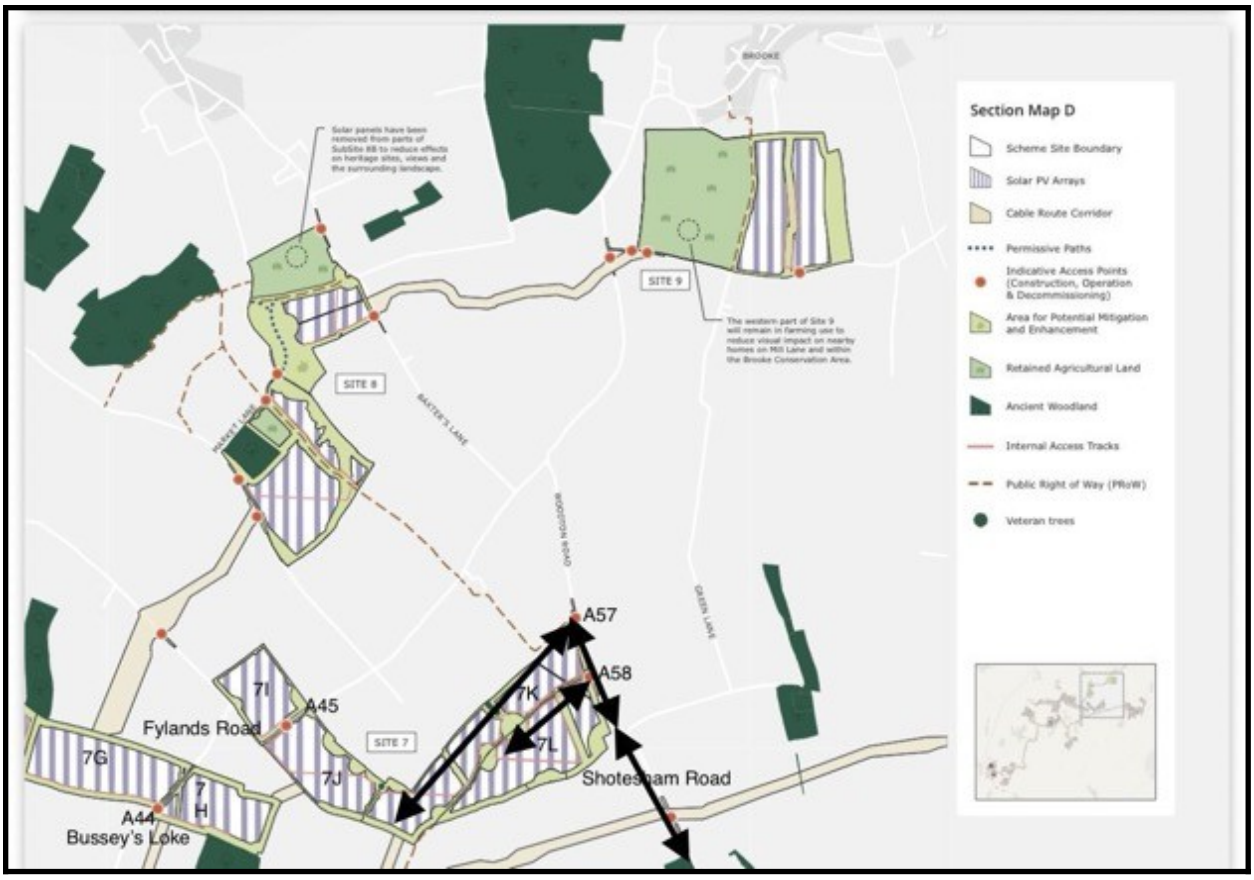
- Using Access points A45, A57;
- From B1332, westbound on B1527;
- Northbound on Shotesham Road and Woodton Road;
- West onto A57;
- Internal haul route through 7K and 7J;
- Cross on A45 for access to 7I;
- Depart on same route in reverse.



Map shows route to for access to Sites 7I-J using internal haul road and in reverse

Site 7K-L

- Access points A57, A58;
- From B1332, westbound on B1527;
- Northbound on Shotesham Road and Woodton Road;
- West onto A57/A58;
- Depart on same route in reverse.



Map shows route to for access to Sites 7K-L using internal haul road and in reverse

The Krons



The Krons with heavy vegetation either side of the lane and overhanging trees



The Krons bridge



The Krons bridge over the Hempnall Beck

The Krons is noted as having passing places and no posted weighted restrictions. There are two old bridges at this location over streams that were not built to withstand multiple HGV movements each day - this requires further investigation.

APP-094 Environmental Statement Volume 2 - Indicative Transport & Access Study Area: Figure 11.1 shows other minor roads that are within the study area including:

- Mill Lane/Norwich Road - **this is closed until further notice and may be permanently**
- Cargate Lane - which is in Saxlingham Nethergate (not Hempnall Green as stated in document) and is not suitable for two way large vehicle movements, and in some places not wide enough for two cars to pass
- The Street/Church Hill, Saxlingham Nethergate - on street parking, a primary school and pinch points make this unsuitable for HGV vehicle movements where two way traffic is not possible (also very old water and sewerage pipes under carriageway)
- The Green/Bussey's Loke - narrow single track with no passing places, also route of Boudicca Way (long distance footpath) resulting in high pedestrian use

AIL Route for transformers to substation on site 7F

It is clear that the AIL route has been planned from behind a desk and the consultants have not set foot within the village - "swept path assessment has been constructed from client supplied data and OS Mastermap Data"

Appendix D AIL report (APP-176) gives lots of measurements and complex diagrams but uses vague phrases such as "street furniture positions are approximate" and referring to the route as "considered to be negotiable" **This does not provide sufficient accuracy.**

On page 14 of the report regarding sites 7D,7E & F in the table under "Any known problems for AIL access in terms of negotiability and other route comments" it states "Oversail along the route to site is anticipated to remain within the public highway boundary" **This suggests that there is no need for remedial works, this conflicts with their assessment late in the report**

In attachment 6 (swept path assessment):

On diagram (24-1221.SPA08) along The Street passing the War Memorial it refers to "caution advised" regarding street furniture and overhead wires but "expected oversail" is "expected to be within Highway boundary"

Leader 4 - suggests remedials to foliage depending on time of year - This point is located at the narrowest part of Church Hill where on the north side is a grade 2* retaining garden wall with a wrought iron fence atop (The Old Rectory). This wall holds up circa 3ft height of soil into which a yew hedge is planted - no amount of *trimming of foliage* is going to widen the route without

demolishing the wall/fence. On the south side is The Granary (dwelling) which is situated right up to the pavement. This has not been recognised in the report.

All the way along this part of the route through Saxlingham Village and around to Broaden Lane it is suggested that "subject to the implementation of the recommended remedial works, and observing the stated cautions, this section is considered to be physically negotiable"

The remedial works thus far include trimming/pruning to hedges/trees, and the removal of bollards on the section from The Green around to Broaden Lane.

The dimensions that are being given in this report leave very little room, in some parts of the route only centimetres, for any error (whether human or mechanical) which may result in permanent damage to property and infrastructure. Consultants need to visit the village and do an in depth analysis of the AIL route, including proper site surveys.

The weight of these AIL vehicles, although spread over several axles, are likely to damage services which run under the road in the village including water and sewerage pipes (some of which are asbestos and fragile). Many of the houses along the route through the village are historic grade 2 listed and some have limited foundations which may be damaged by heavy loads. The war memorial is also listed and in danger of damage

In the last 24 hours (30/5/26) East Pye planning maps have appeared around the village that are different to those presented in previous consultations, with areas of land shaded that are of interest to the development **-** these are bullying tactics that are unsettling to residents, and contravenes public consultation requirements.

AIL Route for Cable Drums to cable route CRC10

The definitive route for the AIL cable drums is not clear. The Construction Traffic Management Plan (CTMP)(APP-201) is only an outline document - "final AIL routing will be confirmed at the detailed design stage".

Figure 8 in the CTMP & Figure 11.8 (APP-095 Likely & suitable routes to the scheme) shows the AIL cable drum route using The Green (Saxlingham) to access CRC10

BUT.....

APP-176 ES Volume 3 Appendix 11.1 Transport Assessment Part3

Attachment 11 - Cable Drum Highway Access Location Summary

This document shows that access along Saxlingham Green is non-negotiable (coloured red in table) stating "Narrow road widths along The Green restrict access" for access point 3.1

Moving the access point to 3.2 on The Green (coloured amber in table) would require "High amount of remedial works"

The Green is a conservation area with a very narrow carriageway (3 metres wide in places), which is also the route of Boudicca way (long distance footpath) resulting in high pedestrian use.

AND THEN...

Alternatively the CTMP (APP-201) in section 6.2 suggests delivery of cable drums will be to one of three CRC temporary construction compounds and then onwards using internal routes.

As a result of these inconsistencies it is not clear which route is being proposed. This requires urgent review.

Haul Roads

The scheme proposes numerous, extensive haul roads to facilitate the construction and on-going management and maintenance of the project. The heavy clay topsoil means that these roads will have to be constructed with a firm foundation to prevent the surfaces sinking into the clay in wet winter weather. The material excavated for the foundations is to be stored alongside the tracks. The combination of the material excavated for the foundations, the foundation material that will have to be imported, and the passage of the 60-year life of the consent casts severe doubt of the ability of the land to be restored to good agricultural use following the expiry of the DCO.

The construction phase of these haul roads will inevitably be both extremely noisy, dusty and disruptive for the nearby inhabitants. There will be increase in traffic in the surrounding area of very narrow country lanes. Following construction, the use of the tracks by maintenance vehicles will generate some noise, dust and disturbance that will impact on nearby houses and users of the PROW's affected by the scheme.

The impermeable nature of the road surface will cause significant run-off onto the already flood prone surrounding land.

11.2 Proposed Road Straightening and Widening

The project will require significant highway works to facilitate access for construction vehicles and the installation of underground cabling.
The project necessitates widening existing roads, removing vegetation, (many veteran and ancient oaks and hedgerows live at the roadside along the route) and removing street furniture to allow for Abnormal Indivisible Loads (AILs) for transformers and cable drums.

Fairstead Lane is proposed for widening which will mean removing significant hedgerows and trees as a result





11.3 Impacts on Existing Traffic

Key Effects on Hempnall Roundabout

East Pye Solar
ES: Appendix 11.1 – Transport Assessment
APP/6.3.11.1

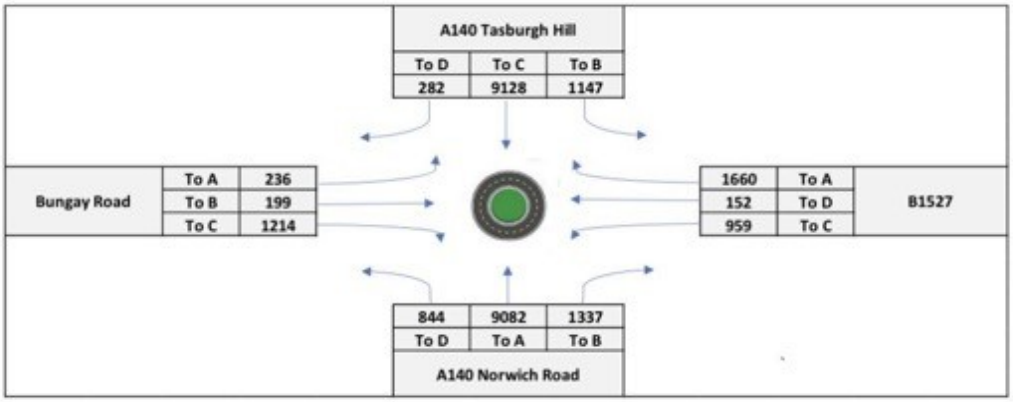


Figure 2.1: MCC Baseline Flows - Hempnall Roundabout (24hr, all vehicles)

Looking at the image above, the total average number of vehicles to use Hempnall Roundabout in a 24hr period is 26,240 however it isn't clear if this count is before or after the opening of the Long Stratton by-pass.

Traffic flow has increased since the opening as sat-navs will guide traffic through the route instead of avoiding it due to closures or congestion.

However flow on the B1527 could be skewed as local traffic from east of Long Stratton had to use the B1527 during the by-pass construction as access lanes were closed for 18 months

- **Creation of 5th exit:** the busy 4 exit will increase to 5 to access site 4A access point A19;
- The **construction compound** and holding area for haulage to site 7A-F will be located now on site 4A adding to construction traffic for other sites. **This does not form part of the targeted consultation;**
- **Abnormal Indivisible Loads (AILs):** the Hempnall roundabout will be a primary navigation point for extremely large vehicles carrying transformers and cable drums, with some loads expected to reach **4.9m wide and 26.5m long**;

- **Infrastructure Modifications:** To accommodate these AILs, HGVs and construction traffic, the project proposes **widening existing roads** and potentially removing street furniture and vegetation around the roundabout area to increase line of sight;
- **Traffic Congestion:** congestion will increase due to the amount of haulage vehicles and additional access on the roundabout which will increase travel times and air pollution. It has a potential to negatively affect road safety;
- Consideration has not been given to the **increase in housing as part of the Long Stratton Neighbourhood Plan** with increase in road users;
- **No road surveys have been conducted since the Long Stratton by-pass opened** and due to construction traffic and normal congestion through Long Stratton, sat nav routes would direct traffic away from this busy route;
- **The sites that will be routed through the Hempnall roundabout are**:
    - 1A-D, 2A-C, 4A-B, 5A-B, 7A-F
    - BESS Site - adjacent to sub-site 1A-B
    - CRC Compound 1 (east of A140, opposite Sub-site 2C)
    - CRC Compound 2 (north of Mill Road)



Access A19 to site 4A

Effects on B1527 Bungay Road to Hempnall

The B1527 connects to the A140 at the Hempnall roundabout. It is a two-way road that undulates and bends.

It serves as the main connecting route to and from Hempnall and on to Bungay. It acts as a link to hamlets and villages in the area that need to reach the A140 to Norwich or southbound, as well as the local facilities at Long Stratton.

It is a 50mph road reducing to 40 and 30mph with multiple businesses along the stretch including Jack in the Box nursery. Small single track lanes and PRoW can be found off the road as well as field tracks and agriculture vehicles use the lane to move between fields.

- B1527 Bungay Road includes access point A20 to Site 4B just east of the Hempnall roundabout;
- All construction traffic for A20 will require travelling east from Hempnall roundabout and crossing the carriageway into A20;
- Brick Kiln Lane is located 100m from A20 and is a small but busy lane used by local businesses and residents as an access route to Morningthorpe;
- Brick Kiln Lane also serves the school bus;
- No traffic assessment has been done at the entrance to Brick Kiln Lane which is also on a bend surrounded by woodland either side;
- Access point A23 and A24 to site 5A and B a few hundred metres further along B1527 also will require construction traffic and AIL to cross the carriageway;
- Further access to site 5 at access points A25 and A26 require again crossing the carriageway at The Street;
- As site 4A is a holding compound for sites 7A-F, all construction traffic for a further six sites will also manoeuvre along B1527 making it a total of 10 sites/sub-sites using this busy and crucial access road with exit journeys also in reverse;
- **The B1527 was not part of the targeted consultation for access to sites 7A-F**

HGV and Vehicle Movements:

East Pye Solar state the **daily** movements are:

- 69 HGVs will arrive and depart across the scheme = 138 in total
- 205 daily cars/shuttles/LGVs will arrive and depart across the scheme = 410 in total
- **Hempnall Roundabout will be impacted by:**
    - 4 HGVs (4A)
    - 6 HGVs (4B)
    - 10 HGVs (5A and 5B)
    - 5 HGVs (7A-C)
    - 6 HGVs (7D-F)
    - **Total extra HGVs is 31 = return journeys**
    - 16 other vehicles (4A)
    - 22 other vehicles (4B)
    - 32 other vehicles (5A and 5B)
    - 18 other vehicles (7A-C)
    - 21 other vehicles (7D-F)

    - **Total other vehicles is 109 other vehicle two-way journeys = 218 more vehicles on Hempnall roundabout.**
- In fact the impact will be greater as the HGVs will be using the compound at 4A as a holding area. Therefore, the HGVs for Site 7A-F will impact the roundabout 3 times as they arrive, called forward and exit again.
- **The impact to the roundabout for sites 7A-F will be total of 33 HGV journeys and 78 Other vehicles, daily**

Inconsistent information

Some examples of inconsistencies in documentation submitted:

There is no mention of a temporary construction compound within land parcel 7 on the planning Inspectorate website: https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN0110014-000127-6.2.4.2 Environmental Statement Volume 2 Figure 4.2 Indicative Temporary Construction Compound Locations.pdf. AP060

However, there is a map on the East Pye solar website that clearly shows a temporary construction compound within land parcel 7D. The information is contradictory and unclear

https://rust-sheep-3t6z.squarespace.com/s/Figure-52-Indicative-Location-of-Construction-Compounds.pdf

These two pieces of information appear inconsistent and clarification is required regarding the intended construction use of Parcel 7D and whether any temporary compound, laydown area, welfare facility, storage area or other construction logistics activity is proposed there.

There is Inconsistency in terminology in different chapters between ‘Project Substation’ and ‘Substation’. 7F is referred to as a Project Substation in ‘Agricultural Land’ (chapter 15) and ‘Noise and Vibration’ (chapter 12) and in other chapters as ‘Substation’ coA map in the document Design Approach APP/7.17 shows Saxlingham Nethergate and The Green as NOT in Conservation Areas.

Other examples:

- The Street (Hempnall) / Broaden Lane / Church Hill / The Street (Saxlingham Nethergate) Single carriageway 60mph Hempnall Primary School and Saxlingham Primary School located along route. On-street parking along

Hempnall section. Overhanging building in Hempnall with speed restriction. This statement is incorrect. The street Saxlingham is 30mph

- 18 - The Green Medium Sensitivity Contains some residential dwellings, largely set back from the carriageway, with Saxlingham Hall nursing home located nearby on a side road. This statement under estimates the impact on houses on the green
- 7A-F A28, A29, A30, A40, A42 From A140: south on Hempnall Roundabout onto Site 4A via A19, await call-forward to site, eastbound on Hempnall Roundabout and B1527, northbound on The Krons, westbound on Fairstead Lane, north onto A29/31. Internal haul route to Sites 7A-F – cross Broaden Lane via A40 for access to 7E-F. For southern portion of 7D, southbound on Broaden Lane and west onto A42. Depart on same route in reverse. The new Haul route although in other parts of the submission they are still using the road through the village and The Green. Clarity is required
- 11.6.25 Construction vehicle routes have been selected with the principal aim for avoiding routeing vehicles through local villages wherever possible including the villages of Great Moulton, Long Stratton, Hempnall, Saxlingham Nethergate and Brooke. The selected routes are considered the most appropriate to each access and have been prepared based on engagement with NCC. And yet in the outline traffic management plan it clearly shows heavy goods going through Saxlingham Nethergate and The Green

- Design approach APP/7.17 – does not show conservation area for Saxlingham Nethergate and Saxlingham Green
- Figure 3.17 – Shotesham/Woodton hornbeam woods label appears twice – one of which points to Saxlingham Grove
- Figure 4.9 shows substation in 7F and not mentioned anywhere in the document
- Figure 4.9 and 5.4 contradict each other for 7D land – which one is correct?

11.4 Cable Route Corridor

- CRC5 - links Sub-site 7H with Sub-site 7J and crosses a single field;
- CRC7 - links Site 5 with Site 7. CRC7 comprises a number of fields, woodland and a Statutory Main River, River Tas chalk stream;
- CRC8 - links CRC6, Site 6 and parts of Site 7 together, CRC8 comprises numerous fields and accommodates some highway infrastructure;

- CRC10, CRC11 and CRC12 - links various parts of Site 7 together and connects the Scheme to Site 8. CRC10, 11 and 12 comprises a number of fields. CRC 10 accommodates some highway infrastructure.

There are some key concerns for CRC7 when crossing the Hempnall Beck, a Statutory Main River.

Main Concerns:

- **Flood risk:** a cable crossing beneath a Main River can potentially affect the river's flow and floodplain. The Environment Agency specifically raised concern that the cable crossings under Main Rivers could increase flood risk if not properly designed.
- **Construction method:** The applicant proposes a trenchless crossing (HDD - horizontal directional drilling) at Hempnall Beck rather than digging an open trench through the river. CRC7B is identified as an avoidance area for the Fritton Grange Meadows COuntry Wildlife Site and HEmpnallHempnall Beck Main River;
- **Fish and aquatic ecology:** This was a particularly important concern raised during the EIA scoping process. The concerns included:
    - HDD noise potentially affecting fish behaviour;
    - fine sediment and pollution runoff entering Hempnall Beck during construction;
    - potential effects on fish and white clawed crayfish
    - the need to demonstrate that the cabling will be sufficiently deep enough so that electro magnetic fields are not detectable at levels that could affect aquatic life;
- **Aquatic invertebrates**: the scoping comments also highlighted the need to consider aquatic invertebrates and protected species including the Norfolk hawker and white clawed crayfish that are present within the river Tas;
- **Wildlife site**: CRC7B crosses/comes within Fritton Grange Meadows Country Wildlife Site, so the river crossing isn't simply a water-engineering issue; there is also a designated local biodiversity receptor to protect;
- **Watercourse crossing details**: The Environment Agency asked for sufficient detail on the location and methodology of cable crossing, because both construction and the finished crossing could have implications for flood risk, aquatic habitat, habitat connectivity and the river's flow regime.

11.5 Impacts on Public Rights of Way

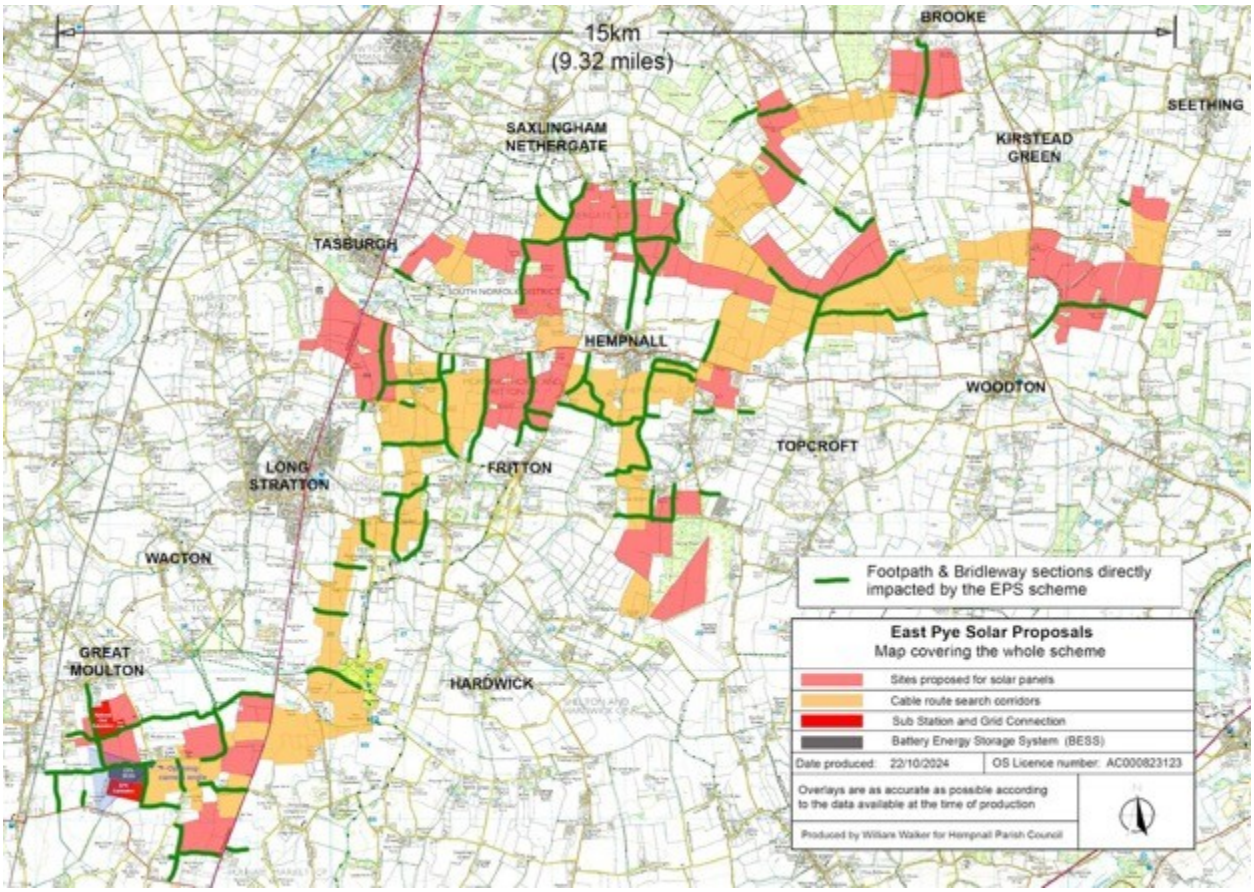


Image shows the impact to all PRoW across the Scheme



Part of Saxlingham Green Solar Site - (Shaded in Red) **Many footpaths directly affected**

The whole area is criss-crossed with numerous public footpaths and bridleways, including the historically important and much-visited Boudica Way. During the construction phase many of these paths will be inaccessible due to obstruction by vehicles and equipment and for safety reasons. After completion, none of the paths will hold any attraction for walkers and horse riders as the views will be dominated by the solar panels, in some cases on both sides of the path.

There is a permanent 'footpath' map by the War Memorial.

Paths are used recreationally by locals for walking, running, dog walking and horse riding and by visitors attracted to this quiet and unspoilt area. Importantly, many paths are also used as a practical and safe way of moving from one community to another on foot.

The Land parcels 7D (solar arrays) and 7F (solar arrays and an electricity sub-station) are separated by a road but are otherwise bordered on three sides by 3 kms of public footpaths, the southern edge being Processional Way **(SN-FP27)**, so named because it marks the border with Hempnall and was walked during the annual beating of the bounds. Much more historically, the eastern border, **Botenha Way (SN-FP 9)** retains the name of Saxon heiress Bote from the mid 11th century.

This is an ancient and historic landscape.

All use of the paths surrounding 7D and 7F would be adversely affected in the short (and in some cases, long) term by views of large scale industrial infrastructure, extensive fencing, construction noise and traffic. And the intention to close and restrict access of the majority of them will also have a significant adverse effect, far beyond mere inconvenience, on the ability to travel safely on foot from the Saxlinghams to Hempnall where there is a shop, post office and vehicle repair garages.

From Saxlingham Nethergate the current route follows PRoWs SN-FP14, SN-FP12, Hp-BR30 to Fairstead Lane in Hempnall:

SN-FP14 forms the northern border of 7D and is a lovely tree and hedgerow lined linear woodland walk which starts close to the ruined church of St Mary then passes through a drainage hollow known as Mud Hole once home to four cottages, now all gone. Steep steps lead up and out to bright open field views (7D) to the east. A left turn at the junction with **SN-FP12**, which forms the southern border of 7D is followed by a right turn down **HpBR-30 (Pymar's Lane)**, another beautiful dappled linear woodland walk leading to Fairstead Lane Farm and Fairstead Lane.

During the construction phase, and the renewal and decommissioning stages, however, this walk would no longer be feasible. **SN-FP12, SN-FP13** (which links the top of Church Hill to SN-FP14) and **SN-FP14** are all listed as 'Medium-term' closures, defined as 'a month, or longer, up to the commencement of the Scheme operation' which will have the effect of closing down this access route for the duration of the longest of the closures.

Recognising this, diversions have been suggested: 'Either **SN- FP10** and **Hp-FP3** or **SN-FP9** and **Hp-FP5** via Wood Lane, to get between Saxlingham Green and Saxlingham Nethergate in the north and the Street and Fairstead Lane in the South'.

Aside from failing to recognise the off-road distance between the centre of Saxlingham Nethergate and a mid-point along The Green, these paths, which form the routes by which residents of The Green currently reach facilities in Hempnall, have own restrictions;

SN-FP10 leads directly off national footpath Boudica Way, and cuts southwards down 7F where it meets to form a corner with the east-west southern border path **SN-FP27,** alongside which a 0.75 hectare, 7m high substation is planned. Both paths have largely open views across 7F around a peninsular of woodland to the north, where Saxlingham Green, a conservation area with many listed buildings forms the northern border. Continuing south is **Hp-FP3** which runs along the western edge of 7E for some distance, before arriving at Bussey's Loke in Hempnall, thus forming a safe way to get from Saxlingham Green to Hempnall on foot, Broaden Lane being national speed limit with no pavement.

The alternative route suggested starts at **SN-FP 9 (Botenha Way),** which also leads directly off Boudica Way and follows the eastern border of 7F with largely open field and peninsular woodland views into 7F. There is a short stretch of **SN-FP27** with further open views north towards Saxlingham Green before the route turns southwards again, onto **Hp-FP5,** which forms the western border of 7E, leading ultimately to Bussey's Loke, in Hempnall.

SN-FP27 is listed to be closed, Medium-term, as is **SN-FP11** that takes the footpath to an entrance on Broaden Lane. Given the siting of the sub-station a lengthy closure seems likely. **SN-FP10** and **SN-FP 9, Hp-FP3** and **Hp-FP5** will all be 'open' but managed, meaning there will be signage, moving vehicles, widened access tracks where applicable, banksmen or marshals and 5–10 mph speed limits while construction with all the noise and visual disturbance associated with it continues around them. None of which adds up to an enjoyable walk in the countryside and would undoubtedly deter recreational walkers, in direct conflict with Norfolk County Council's public access and heritage objectives.

Planned mitigation for the open views that form part of the paths around 7D is limited to the planting of 'native hedgerow and native hedgerow trees' along exposed and open borders. For **SN-FP13,** where an open stretch would give full view of solar arrays and vehicle movement, this is extended to 'hedgerow with trees, instant hedgerow, and native broadleaf woodland'.

Mitigations for the visual effect of the Scheme on 7F (and 7E) from surrounding, and more southerly footpaths include different combinations of hedgerow and hedgerow trees, native shrub planted with individual trees, native broadleaf woodland planting.

These measures seem optimistic in relation to the height and scale of the solar panel and substation elements of the scheme especially since many of the visualisations and photomontages have been made from photographs taken at long ranges (not applicable to footpaths that run right alongside solar arrays) and in the summer; a different picture will emerge in winter months in a predominantly deciduous landscape.

Until this vegetation is of a height to obscure arrays of 4.5m static or tilting solar panels, plus, on 7F, a 7m sub-station, there will be significant adverse long term visual effects arising from using these paths, particularly looking northwards towards 7F where it is accepted that 'At year 15 the proposed mitigation would be fully established and would screen the majority of the proposed

elements. It is however likely that the substation would remain visible to some degree' (Public Rights of Way Visual Amenity Assessment SN-FP27)

And whilst other mitigating planting including 'Flower Rich Pollinator Mix along the adjacent field margins, and areas of retained scrub and grassland' is a pleasant idea it falls extremely short of mitigating the loss of open green space.

In addition, little or no regard has been taken of the impact of widespread use of 2.5m high deer fencing which, as well as further industrialising the landscape, would potentially close in footpaths with fences either side making them unpleasant and potentially dangerous spaces for women and girls and lone walkers.

In conclusion, the construction phase of this scheme would cause untold disruption to the footpath network in this place, severely reducing the ability of both residents and visitors to move about on foot recreationally or between communities. And in the long term from almost all points around these fields the open views and the experience of using these peaceful and ancient footpaths, walked since the earliest days of human settlement in Saxlingham Nethergate, would be permanently degraded by this proposed industrialisation.

Land parcels 7D and 7F are separated by a road but are otherwise bordered on three sides by 3 kms of public footpaths, the southern edge being Processional Way, so named because it marks the border with Hempnall and was walked during the annual beating of the bounds. Much more historically, the eastern border (Botenha Way), is named after a Saxon heiress (Bote) from the mid 11th century.

South of Processional Way, in the parish of Hempnall, are further fields earmarked for solar panels which means this historic footpath will be fenced in on both sides, making any walk along it both unpleasant and dangerous. The same will apply to the 600 m path which runs north to south through 7F, joining Processional Way and leading to Hempnall.

The western border of 7D forms part of a well-used woodland path to Hempnall, the start point of which coincides with a vehicle access point on a blind bend. Two other access points, on Broaden Lane, also coincide with pathway start points.

From almost all points along the 3.6 kms the open views and the experience of using these ancient footpaths, walked since the earliest days of human settlement in Saxlingham Nethergate, would be permanently degraded by the proposed industrialisation which is contrary to policy protections for public rights of way and historic landscape corridors.

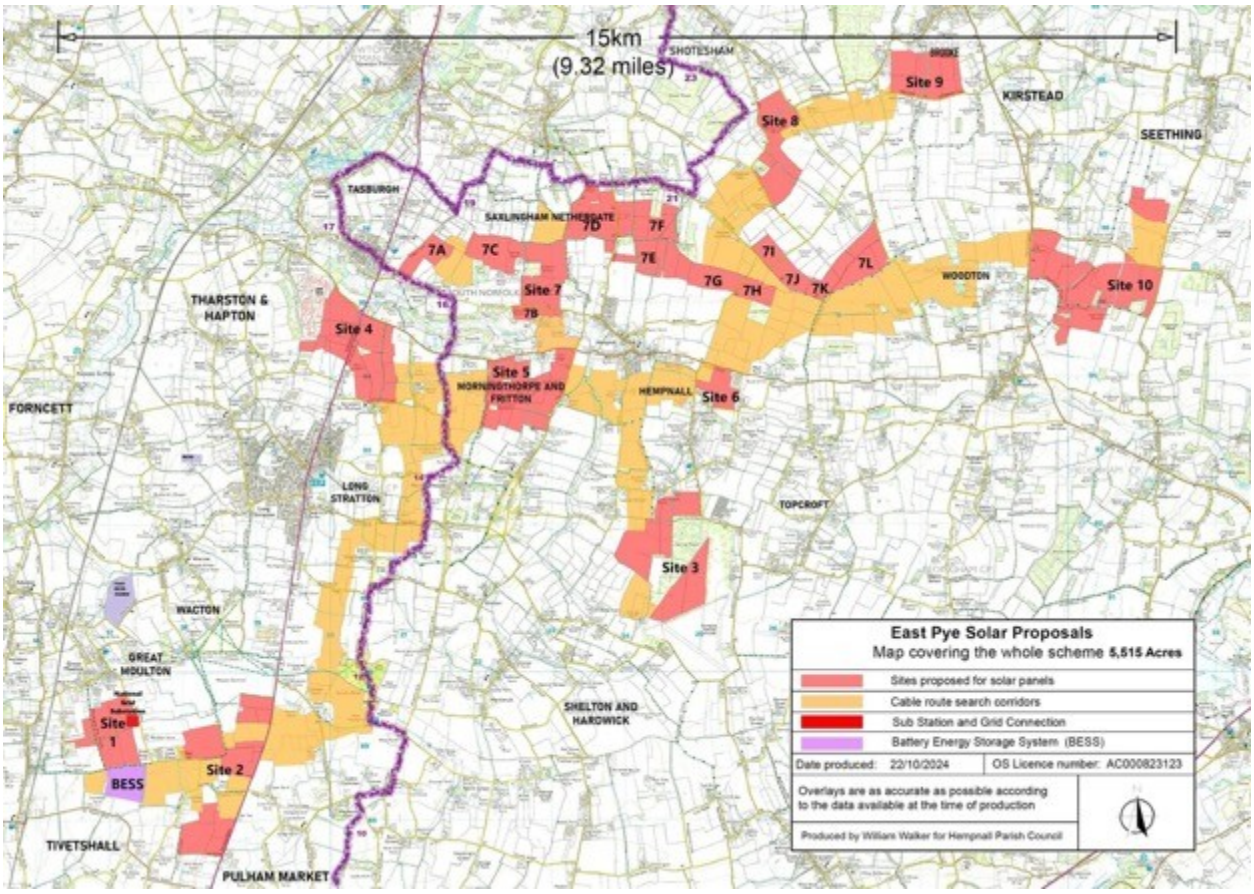
In addition, **Boudicca Way**, South Norfolk's only and much used long-distance footpath runs along the length of the conservation area of Saxlingham Green, linking with Botenha Way at the eastern edge. Further on it continues through the conservation area of Church Hill, proposed as an AIL route.

In summary this industrial development would:

- destroy its historic and experiential value;

- conflict directly with public access and heritage objectives.
- Create perceived unsafe confined spaces for women and girls, making them less likely to continue to use PRoW

This represents **qualitative severance**, not mere inconvenience



Boudicca Way map goes directly past the southern border or subsite 7A and along Fairstead Lane

11.6 Impacts on Pedestrians and Children

The high security fencing will restrict the width of the paths and eliminate any means of escape, making them less safe e.g. for children and passing dog walkers. During the construction phase the numerous HGVs and the Abnormal Indivisible Load (AIL) vehicles will make the minor (unclassified) roads very unsafe for pedestrians in Saxlingham Nethergate village, Hempnall VIllage and Fairstead Lane (Boudicca Way) as well as

children and parents outside the primary schools in both villages, and on The Green e.g. for walkers following Boudica Way.

11.7 Impacts on Cyclists

During the construction phase, all access roads in the area would effectively become no-go areas for cyclists, both recreational and commuting, due to the narrow width of the unclassified roads and the size and frequency of the supply vehicles.


13:15
78
Rebellion Way: map and GPX file
Cromer
Fakenham
Reepham
Dereham
Norwich
Watton
Wymondham
Attleborough
Brandon
Lakenheath
Harleston
Bungay
Mildenhall
Eye
Bury St Edmunds
Saxmund
100m
cyclinguk.org

Rebellion Way is a 256 mile circular cycle route that utilises the lanes around site 7 including some of the paths for Boudicca Way where allowed.

11.8 Parking for East Pye Solar Workers

According to East Pye Solar, an average of 258 workers will be on site daily with a maximum of up to 479 per day.

Although it has been suggested that bussing in workers wherever possible will be looked at, moving them across the scheme will impact local road networks and buses and minivans will still need to be parked.

11.9 Local Bus Transport

2.4 Public Transport

Bus

2.4.1 The key bus corridors within the vicinity of the Sites and CRC are summarised in **Table 2.2**. Bus stops located within the Study Area are shown in **ES: Figure 11.9 – 11.13 Public Rights of Way, National Cycle Network and Bus Stops [EN0110014/APP/6.2.11.9-11.13]**.

Table 2.2: Bus Services

Service Number	Route	Nearest Sites	Frequency, Mon-Sat (approx.)	Operating Hours, Mon-Sat (approx.)
82	Norwich - Roydon	2A-C, 7A	Every hour (Mon-Sat)	09:00-22:00 (Mon-Sat)
84	Norwich – Hempnall – Long Stratton / Wacton / Harleston	6, 7D-F	Every 2 hours (Mon-Sat)	08:00-18:00 (Mon-Sat)
41 / 41A / X41 / 941	Norwich – Brooke – Woodton – Ditchingham – Bungay / Halesworth	10C	Every 30 mins (Mon-Sat)	08:00-23:00 (Mon-Sat)
1 / 1A	Norwich – Long Stratton / Burston / Tivetshall - Diss	1A-D, 7A	Every 3-4 hours (Mon-Sat)	08:00-16:00 (Mon-Sat)
36 / 36A / 36B	Horsford – Norwich – Long Stratton / Harleston	7A, CRC4	Every 30 mins (Mon-Sat)	06:00-23:00 (Mon-Sat)

The main bus routes utilising A140 as well as any of the stipulated transport routes including the 36, 36A and 36B will undoubtedly experience delay and disruption to the service.

Saxlingham Nethergate - 7D and 7F

The regular bus service no.84 from Harleston via Hempnall to Norwich, through Saxlingham Nethergate, would at best suffer delays throughout the construction phase, due to congestion as a result of the increased HGV traffic, and may need to be re-routed or cancelled.

For many, the bus is the only means of getting about. People of all ages rely on the to get to their place of work, to school or college in Norwich as there are no 6th form high schools locally, university or to use the resources of Norwich for leisure and shopping.

Often school and college students will leave their home at 7am to get to their destination on time. The delay to services in the morning and evenings will elongate their day considerably.

11.10 Impact to local Businesses

The Hempnall roundabout serves c20,000 vehicles in all directions including commercial, HGVs, service industry and emergency services; police, fire and ambulance. Adding an access point on this roundabout not only will cause traffic congestion that will cause delay to local and other businesses as they pass through this significant junction.

Congestion will also cause vital delay to emergency response times.

Farm traffic will be impacted on the local road network as they try to manoeuvre the increase in HGVs and AILs. B1527 is only just wide enough for two commercial vehicles to pass and the road undulates and winds along making the road more dangerous with the extra construction traffic.

The Krons, Fairstead Lane, Hempnall, to and from Bungay, Hempnall to Saxlingham Nethergate are all main local routes for courier, delivery, food, local agriculture, small and local business including services like trades, to name a few.

These routes and many others will be far busier and delay to local transport will have a detrimental effect as people try to still do their job.

11.11 Impact on local Airfields

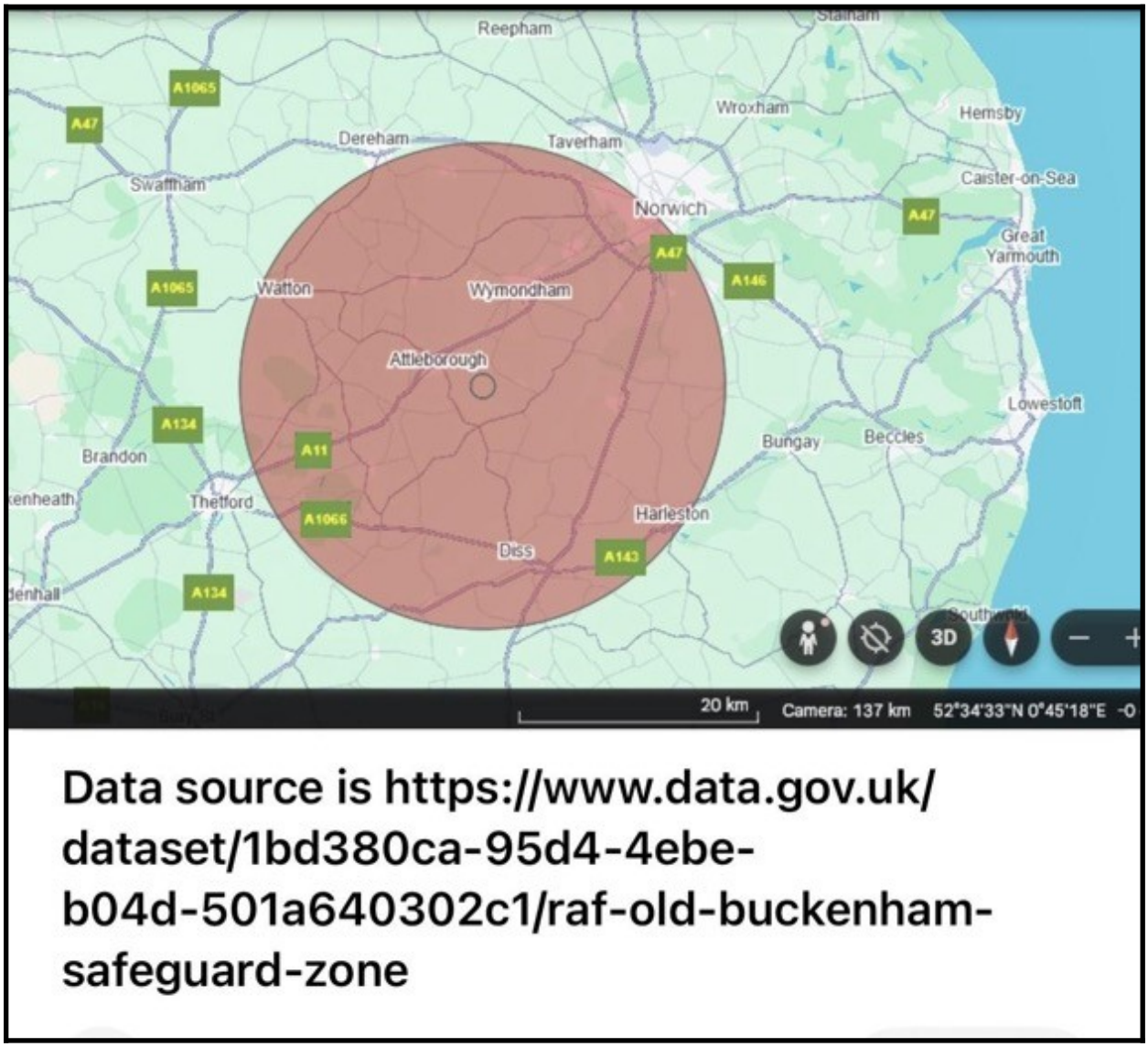
Site 7 sits within the radius of many busy local airfields within a short distance, including Hardwick Airfield at 4 miles, Tibbenham Airstrip at 6.5 miles, Seething Airfield at 6.5 miles and Old Buckenham Aerodrome (which hosts a large annual air show with the Red Arrows in regular attendance) at 10 miles.

There is also a small private airfield on the western boundary of Long Stratton that acts often as a personal, farm-based airstrip used for light aircraft, with occasional helicopter activity.

Site 7 sits under the approach path for Norwich International Airport with numerous large passenger flights seen daily above.

The East Anglia Air Ambulance is regularly seen flying to and from Norfolk and Norwich University Hospital and uses the airspace over Long Stratton for manoeuvre training with fling and glare a major concern.

Many helicopters follow the A140 as a route north/south.



Data source is https://www.data.gov.uk/dataset/1bd380ca-95d4-4ebe-b04d-501a640302c1/raf-old-buckenham-safeguard-zone

The air space above Site 7, and in fact in the skies above the rest of the East Pye Solar proposal, is used on an almost daily basis by the Royal Air Force and the American Air Force for training including jets and very low flying large aircraft. It is commonplace to have ‘dog fights’ above the local villages and the ‘glint’ and ‘glare’ caused by the reflection of the sun on the solar panels, could cause serious safety issues especially in the cumulative impact of the scheme.

Well documented research highlights the vulnerability of aviation to ‘glint’ and ‘glare’ as they can cause temporary visual impairment for pilots, with the risks being more acute

during low-altitude flights segments such as approach and departure, when pilots must maintain precise visual awareness. This is clearly a major issue in this part of South Norfolk with the amount of small airfields in close proximity.

It is strongly felt that a robust Glint and Glare Assessment is completed covering the following: -

1. Solar Position Modelling: Annual and diurnal sun paths to determine potential reflection windows.

2. Receptor Mapping: Identification of all sensitive aviation receptors.

3. Geometric Visibility Analysis: Determining whether reflected rays intersect pilot sightlines.

4. Intensity Estimation: Assessing whether reflections exceed daylight luminance levels likely to cause discomfort or disability glare.

5. Duration and Timing: Identifying when and how long glint or glare would be experienced during operational periods.

6. Cumulative Impact: Where applicable, assessing multiple solar PV developments in the same airspace.

Chapter 12: Noise and Vibration

Introduction

Long-term exposure to construction noise has significant, well-documented negative impacts on the mental health of nearby residents, acting as a chronic environmental stressor that extends beyond simple annoyance.

Persistent, high-intensity noise from machinery, drilling, and piling triggers the hypothalamic-pituitary-adrenal (HPA) axis, a ‘fight or flight’ response, leading to increased cortisol (stress hormone) levels. It also causes cognitive overload, fatigue, anxiety, irritability, and a 30% higher risk of depression.

Key mental health impacts of long-term construction noise on residents include:

Chronic Stress and Anxiety:

- Constant noise keeps the body in a state of alertness, leading to elevated cortisol levels, heightened stress, and anxiety.
- keeps the body in a "fight or flight" mode (sympathetic nervous system activation), which leads to persistent mental fatigue, irritation,

Sleep Disturbances:

- Noise above 30–40 dB during sleeping times can disrupt sleep stages
- Even if you don’t fully wake up, your body reacts
- Construction noise causes micro-awakenings that disrupt deep sleep, leading to insomnia, sleep deprivation, and subsequent fatigue.
- Noise disrupts sleep patterns, preventing necessary rest, which directly leads to increased irritability, reduced cognitive performance, and mood disorders.
- Construction times are from 7am - 6pm Monday to Friday and 8am - 1.30pm on Saturdays
- Many people work shifts, nights and also from home.
- Young children and babies can be more sensitive to sound and disturbance
- These effects are typically linked to environments with continuous noise above 55–60 dB.

Irritability and Emotional Fatigue:

- Persistent auditory irritation lowers mental resilience, leading to reduced patience, moodiness, and a sense of being overwhelmed.

Impaired Cognitive Function:

- Especially relevant to children
- Residents and workers may experience reduced concentration, memory problems, and difficulty focusing, particularly when working or studying from home.

- Impaired decision-making capabilities can reduce productivity and increase occupational risks.
- Learned Helplessness:
- Long-term, uncontrollable noise can lead to a sense of hopelessness or powerlessness, as residents feel they cannot control their own environment.

Noise Sensitivity:

- Individuals with higher sensitivity are more vulnerable to experiencing significant anxiety, depression, and poor sleep quality due to environmental noise.

Tinnitus

- Ringing, buzzing, or humming in the ears
- Often linked to repeated exposure to loud environments including, machinery, power tools etc

Hyperacusis

- Increased sensitivity to everyday sounds
- Can develop after prolonged noise exposure

These happen even at levels below those that damage hearing. They're caused by the body's stress response.

Vulnerable Populations

While noise affects all residents, certain groups are at higher risk of adverse mental health outcomes:

Children:

- More sensitive to noise-related stress,
- can lead to behavioural issues and
- learning disruptions like reduced attention, slower reading development,
- lower memory performance

Elderly:

- More vulnerable to cognitive decline,
- hypertension, and
- depression associated with noise.

Low-income Residents:

- Frequently located in areas with poor insulation and
- lower capacity to move or soundproof,
- leading to higher exposure rates.

On-going Mental Health:

- less tolerance and
- have greater negative outcomes

Mechanisms and Long-Term Outcomes:

Chronic noise exposure acts as a "direct pathway" of harm to the brain, causing neuroinflammation and oxidative stress, which are linked to neuropsychiatric outcomes. The inability to recover from this daily noise leads to:

Increased Depression Risk:

- Residents in high-noise areas are more likely to report higher psychological distress and depression.

Reduced Quality of Life:

- The continuous nature of construction noise causes emotional fatigue, significantly reducing overall well-being.

Physical-Mental Interplay:

- The stress and sleep deprivation can cause cardiovascular issues, such as hypertension and headaches, which in turn exacerbate mental stress.

Work from Home or Retired:

- Tilla Farm Shop on Fairstead Lane will be surrounded by construction noise as well as access on Fairstead Lane.
- multiple homes surrounding the plots across the scheme are retired and enjoy the countryside to walk and hobbies
- Many elderly are less able to escape their home and continuous construction noise.

Even moderate noise can feel excessive if it's continuous or unexpected and irregular.

It is accepted that noise becomes excessive if the noise level is 55-60 dB within your home environment during the daytime and 40-45 dB within your home environment during the night.

There are a number of residential properties within less than 100 metres of Site 7A, who will undoubtedly suffer a noise nuisance and a potential risk to physical and mental health, as a direct result of the construction work

www.decibelinternational.co.uk

Impact of Vibration on Timber-framed and Clay-lump buildings

Vibrations, whether from construction (piling, blasting), heavy traffic, or machinery, can have distinct impacts on timber-framed and clay lump (cob) buildings due to their specific structural characteristics. Generally, these materials are more flexible than masonry, which can allow them to absorb some energy but also makes them susceptible to damage at connections and joints.

Impact on Timber-Framed Buildings

- **Connection Failure:** The primary risk is at the joints. Persistent vibration can cause damage to connectors, steel brackets, and fasteners, particularly in mass-timber or glulam structures.
- **Serviceability and Comfort:** Timber buildings, particularly taller ones, are lightweight and flexible, making them susceptible to wind-induced vibrations that may affect occupant comfort.
- **Cracking in Finishes:** While the timber frame itself may be robust, rigid interior finishes like plasterboard or exterior cladding (brickwork, stucco) are prone to cracking due to movement.
- **Floor Vibrations:** Modern timber-framed buildings may experience, or cause, excessive floor vibrations (e.g., from walking), which can be a, serviceability issue.
- ScienceDirect.com +4

Impact on Clay Lump (Cob) Buildings

- **Vulnerability to Moisture and Settlement:** Clay lump is a rigid but relatively weak material compared to masonry. Vibrations can cause differential settlement of the bearing soils, which in turn leads to cracking in the walls.
- **Brittleness and Cracking:** Clay lump buildings are often older, heritage structures. The rigidity of the clay makes it susceptible to cracks from vibrations, particularly at the corners of openings (doors and windows).
- **Weakened Structure:** Persistent vibrations can exacerbate existing defects, such as loosening the bond between the clay and any added strengthening materials or exacerbating issues in rubble-filled walls. J.S. Held +4

General Observations

- **Damage Patterns:** The first signs of vibration-related damage usually appear on interior, non-structural, or rigid finishes, such as plaster or tile.
- **Source of Vibration:** Construction activities like pile driving and heavy drilling are more dangerous than passing traffic.
- **Mitigation:** To minimize damage, it is crucial to monitor peak particle velocity (PPV) and frequency, particularly in areas with sensitive historic structures. J.S. Held +4

Impact of Vibration on other Vulnerable Structures

Listed buildings account for 2% of the building stock in England and of those listed buildings, only 2.5% are Grade I listed…..Very little information is published on the effects of vibration on listed buildings. However the penalties for damaging a listed building are severe, constituting a criminal offense in some cases.

https://learninglegacy.crossrail.co.uk/document/vibration-management-and-listed-buildings/#:~:text=Where%20the%20ceilings%20were%20visible,of%20the%20timber%20lath%20support.

As Site 7 is surrounded across all sub sites by listed buildings, the risk from vibration and ground movement is high and cannot be migrated against.

During Construction

The potential for artificial light, dust, odour, smoke, steam and insect infestation will have a detrimental impact on amenity and those suffering from respiratory conditions are likely to be severely negatively affected.

No detail has been provided regarding noise levels of either the inverters, the swivelling panels, nor the substation. No ground hum has been described or mitigated. No mitigation for relentless pile driving noise and vibration has been forthcoming.

There is a nursing home within 500 metres of the land parcel 7F and on the route for heavy goods. These are vulnerable patients who have elected to end their days in peace and quiet in a rural, conservation area.

No surveys of nearby Grade II and ancient dwellings have been carried out. No assessment of how clay lump and timber framed buildings will withstand the constant vibration of heavy goods passing. Saxlingham Nethergate minor unclassified road is lined with ancient dwellings that are very close to the road. These buildings have been standing for centuries and have not been subjected to the kind of loads proposed passing their homes.

East Pye Solar say:

- The Scheme currently has a National Grid connection date of 2031. The construction of the Scheme is proposed to be undertaken over an estimated 24-month period. Subject to the DCO consenting process, the earliest construction start date would likely be 2028.
- The construction period will vary across the Site. For the larger sub-Sites there will be opportunities for having multiple construction crews working at the same time.
- There will be temporary construction compounds required for Site 7 although locations have changed during the consultation period.
- The temporary construction compounds will comprise:

- Temporary portacabins for construction operatives (the dimension of the portacabins would vary and the maximum size for individual units is expected to be 10m by 3m with a typical maximum height of 3m);
- Perimeter security fencing with a typical maximum height of 3m;
- Parking areas for construction and workers vehicles;
- A secure compound for storage;
- Temporary hardstanding;
- **Wheel washing facilities (if appropriate water connection and drainage facilities can be provided) *White clawed cray fish reference***
- Storage bins for recyclables and other waste; and
- Temporary lighting for use during construction periods that fall within hours of darkness and within the agreed hours, with the exception of specified circumstances (as set out below).

Construction activities are likely to be carried out Monday to Friday 07:00-18:00 and between 08:00 and 13:30 on Saturdays. However, some activities may be required outside of these times (such as the delivery of abnormal loads, concrete pours for foundations, night-time working for cable construction works in public highways or horizontal direction drilling activities).

Where possible, construction deliveries will be coordinated to avoid HGV movements during the traditional AM peak hour (08:00-09:00) and PM peak hour (17:00-18:00).

The construction phase of Site 7 is likely to take at least 18 months.

Environmental reports produced for Springfield Solar Farm, The Droves Solar Farm and East Stour Solar Farm identified the Construction phase as having the biggest noise impact.

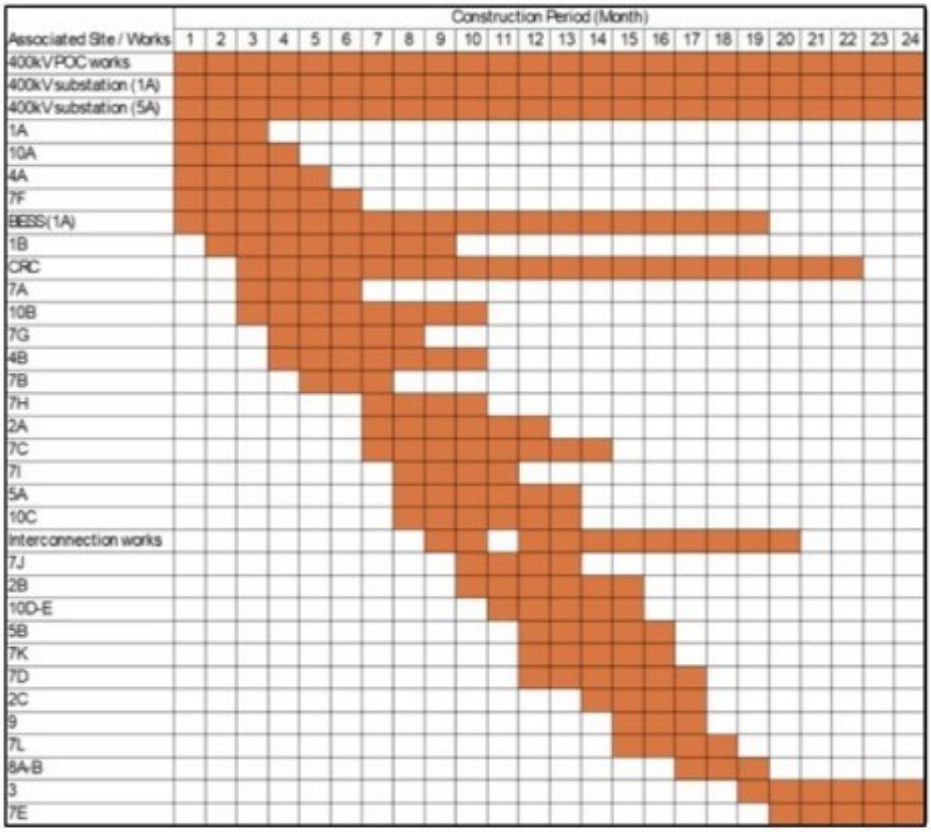


Figure 2.1: Indicative Construction Programme

2.5.2 The core construction working hours (not including start-up and shut-down works) are defined as:

- Monday to Friday from 07:00 to 18:00 (daylight hours permitting);
- Saturday from 08:00 to 13:30 (daylight hours permitting); and
- No Sunday or Bank Holiday working unless crucial to construction (for example, for trenchless crossings which must be continuous activity and the arrival and departures of workers and the delivery of AIL) or in an emergency.

2.5.3 Where practicable, construction deliveries would be co-ordinated to avoid HGV movements during the traditional peak morning (08:00-09:00) and peak afternoon (17:00-18:00) hours. Some activities may be required outside of these times such as the delivery of AIL, concrete pours for foundations, night working for cable construction works in public highways and/or trenchless crossing activities.

Site Preparation (1–3 months)

- Access roads
- Earth moving machinery
- Fencing
- Drainage and erosion control
- Delivery vehicles

Racking & Pile Installation (3–6 months)

- Thousands of steel piles driven into the ground
- Mounting structures assembled

Panel Installation (3–6 months)

- Hundreds of thousands of panels installed
- Cable trenching

Construction of Sub-Station (24 months)

- Earth moving machinery
- Delivery vehicles
- Concrete mixers
- Vibratory rollers
- Drilling and pilling for foundations
- Noise from cranes moving steel frames
- Heavy vehicle movements

Electrical Work (4–8 months)

- Inverters and transformers installed
- DC cabling and AC collection system
- Grid interconnection

Commissioning & Testing (1–2 months)

- System checks

- Grid synchronisation
- Performance testing

The following are examples of decibel levels of some of the machinery used during the construction period: -

- Excavator 70-80 dB –comparable to a busy road
- Concrete breaker 90-100dB – comparable to a jackhammer
- Pilling 100+ dB – comparable to very loud industrial noise
- General construction – 65-85 dB – busy road

It is accepted that at: -

- 50 metres construction is clearly audible and can be intrusive
- 100 metres construction noise can be noticeable but less sharp than at 50 metres.
- 200 metres construction noise is still noticeable, but can blend into surrounding noise

Sound drops by roughly 6 dB every time you double the distance, so to put into context a typical excavator is 80 dB at source: -

- 74 dB at 10m
- 68 dB at 20 m
- 62 dB at 40m (noise of washing machine at mid-cycle)
- 56 dB at 80m (car passing at 30-40 metre distance away)
- 50 dB at 160m (the noise of a domestic dishwasher)

During Operation

The operational phase will result in noise, but to a lower level.

Solar Panels

- The proposal is that Site 7 will have rotating/tracking Solar Panels
- up to 4.5 metres in height.
- Noise emits from electric motors and gears installed in the panel which drives the movement of the panels.
- The noises are not continuous,
- they occur every 10-15 minutes in order to adjust the panel's position by 1-2 degrees.
- The noise emitted is a mechanical whirring, a hum from the motor and clicks from gear engagement

At close range, 1–2 metres, the noise level is typically 40-55 dB and at 20-30 metres distance it is typically 35-40 dB, which as identified previously can disturb sleep at night to properties at close proximity like those on Fairstead Lane and across the site.

Inverters

Solar farm inverters make a steady, low frequency hum and sometimes a light buzz or fan noise, typically:

- 45–65 dB up close – 1 metre
- 35–45 dB at short distance – 10 metres
- 30–35 dB at property boundaries – 50-100 metres

Typical inverter noises: -

- Low frequency hum (transformer type sound)
- Light buzzing from electrical components
- Cooling fan noise (only on some models)
- Occasional clicking when relays switch on/off

These are continuous during daylight hours, because inverters operate whenever the panels are producing power.

132 kW Substation

A Solar farm Substation makes a steady, low frequency hum and sometimes a light buzz or fan noise, typically:

- 50–65 dB up close – 1 metre
- 40-50 dB at short distance – 10 metres
- 30–35 dB at property boundaries – 100 metres

Transformers operate permanently, unlike inverters which shut down at night.

During Decommissioning

The noise of decommissioning the sites will be very similar to that during construction and will resemble a building site with similar traffic.

Conclusion

The sound of construction, operation and decommission will change the nature of the area from countryside to building site and industrial park.

Rather than a sense of peace and mindfulness, which is often why people use or move to the countryside, it will create a sense of not belonging, confusion, frustration and anger.

Chapter 13: Air Quality

East Pye Solar Project introduces localised air quality challenges during construction and, in some cases, could alter local microclimates through land surface changes.

Construction and Infrastructure Impacts

The construction of Site 7 of the East Pye Solar scheme would require:

- Delivery of panels, frames, piles, transformers, cabling;
- Machinery including for excavation, cranes and telehandlers;
- Delivery of concrete for substations and compound;
- Multiple HGV's and AIL journeys per day;
- Congestion to local roads due additional construction traffic;
- Congestion due to road closures and changes to road layouts

The installation phase of solar infrastructure (panels, mounting, inverters, cables) produces air quality issues and can't be mitigated against.

- **Dust Generation (PM10 and PM2.5$PM2.5$):** Earthworks, site clearing, and heavy machinery movement on unsealed roads create dust, particularly in dry and windy conditions;
- **Combustion Emissions:** Increased traffic from heavy-duty vehicles (HDVs) delivering materials, as well as on-site construction machinery,increases emissions of nitrogen oxides (NO) and carbon monoxide (CO).
- **Localised Impacts:** While these impacts are temporary, they must be managed to prevent localised air quality deterioration, especially near sensitive receptors. nsip-documents.planninginspectorate.gov.uk

On narrow lanes the emissions will linger, increasing exposure for residents, walkers and cyclists.

Duration and Intensity

Given the scale of of the scheme and the reliance on the A140, construction would last 24 months across the scheme:

- No recovery period for vegetation;
- Repeated disturbance from overlapping phases;
- Persistent emissions and dust generations;
- Increased traffic disruption to local people so longer periods of commuting time with higher emissions and/or moving commuter routes to small lanes increasing emissions beyond the scheme.

Surface and Microclimate Changes

Large-scale solar farms can alter the surface characteristics of land, which affects local climate and, indirectly, air quality.

- **Albedo Modification:** Solar panels are generally darker than the land they replace (e.g., in arid regions), which reduces surface reflectivity (albedo) and can lead to a cooling effect during the day. Most significant during longer spells of dry weather in summer months when the soil drys, lightens and cracks;
- **Local Cooling/Heating:** While some studies show solar farms can create a "cooling effect" (reducing land surface temperature, particularly during the day), others have noted a potential "heat island" effect, where surface temperatures increase. This became noticeable during the extreme heat waves in Summer 2026 when the temperature at Bloys Grove Solar was measured against a local crop field and the nearby village street. The crop and village street hit 35 degrees whilst the solar field peaked at 49 degrees, 14 degrees higher;
- **Vegetation Loss:** Large-scale land clearing for solar farms can remove vegetation, potentially increasing local dust generation if not managed properly. This will be significant where compounds or substations have been sited where panels aren't planned;
- Although EPS have stated they will aim to minimise the removal of hedgerows and trees, areas for access and cabling as well as widening roads will have significant impact to vegetation loss. Several kilometres of significant hedgerows will be removed for CRC.

Lifecycle Emissions (Indirect)

Manufacturing Pollution: The production of solar panels is energy-intensive and can involve hazardous chemicals, leading to indirect air pollution and greenhouse gas emissions. They are also being manufactured in China in coal power stations and shipped across the World using diesel;

Maintenance Phase:

Although operational emissions will be lower, the scheme still requires:

- regular van and 4x4 visits;
- vegetation maintenance;
- heavy plant repairs;
- panel washing annually up to 450 vehicles making two way trips;
- panel replacement at least twice across the scheme;
- Battery replacement every 5 years.

These trips will add to usual rural traffic particularly when combined with:

- Housing growth in Long Stratton;
- Agricultural and commercial traffic;
- Busy Hempnall roundabout;
- Long Stratton By Pass;

- Maintenance of other solar sites on the scheme;
- Tourism traffic

Decommissioning:

Similar to construction, the end-of-life phase involves heavy machinery and transport, generating temporary dust and emissions.

Cumulative Impact:

The construction of Site 7 will have a significant impact on local air quality to surrounding residents of the multiple sites and as well as the larger area when considered as a cumulative impact along side:

- The other solar sites on the scheme;
- Long Stratton By Pass;
- Long Long Stratton Neighbourhood Plan increasing housing by 1800 as well as a new school, employment hub and facilities;
- Grid upgrades;
- Cabling;
- Road and drainage upgrades;
- Agricultural HGV movements;

These large scale developments will see:

- Increase in diesel emissions;
- Repeated dust events from multiple construction sites;
- Prolonged periods of poor air quality with no recovery time;
- Increased exposure to poor air quality to recreational use of land; or
- Reduced recreational use of land;
- Reduction in tourism to the local area;
- Increase to poor air quality to wildlife and vegetation;
- Dust deposits on listed buildings

The cumulative burden is far greater than the East Pye Solar scheme alone.

Residents:

- Increased exposure to diesel emissions and particulates;
- Reduced outdoor recreation use;
- Dust deposits on homes, gardens and vehicles;
- Dust deposits on businesses and conservation area ;
- Reduced feeling of worth and sense of being;
- Reduced tranquility to rural environment;
- Sense of change to rural environment to industrial environment

Heritage:

- Dust deposits on vulnerable structures and surfaces materials;
- Reduced sense of tranquillity surrounding Conservation Areas and the wider countryside.

Wildlife and Habitats

- Dust smothering hedgerows, flowers and fauna;
- Dust smothering protected ancient trees and woodland habitats;
- Dust entering the water courses and run off into river Tas making the white clawed crayfish breeding ground vulnerable;
- Toxins entering the food supply to wildlife;
- Dust on land used by ground nesting birds;
- Stress on air-quality sensitive species

Public Rights of Way/Bridle Paths

- Walkers, cyclists and horse riders exposed to dust clouds and emissions;
- Reduced enjoyment of rural routes

Tourism

- Reduction in local visitors to the area;
- Reduction in tourism to Norfolk overall as the cumulative impact spreads.

Key Air Quality Issues in Rural Construction

- Fugitive Dust: The primary pollutant is dust from soil-stripping, earthworks, and vehicles moving over temporary roads.
- Trackout: Mud and dust tracked from unpaved site exits onto public roads can cause air pollution far from the actual site.
- Plant & Machinery Emissions: Non-Road Mobile Machinery (NRMM) running on diesel produces significant NO2 and fine particulate matter, which can be high in rural areas that are otherwise clean.
- Impact on Ecology: Dust can settle on surrounding vegetation, reducing photosynthesis and harming local ecosystems, a risk more prevalent in rural settings.
- Topographical Trapping: While open, some rural locations (e.g., valleys and woodland) can experience trapped pollutants.

Chapter 14: Socio-Economics

Site 7 sits in the heart of South Norfolk and considered one of the more tranquil parts of the UK (CPRE) enjoying glorious walks along Boudicca Way, multiple public rights of way, quiet lanes that are enjoyed by cyclists, horse riders, dog walkers and hikers.

The Dark Skies Plan allows people to star gaze without light pollution and supports the nocturnal wildlife to thrive where other places they are in decline.

Our galaxy rising over All Saints, taken by Chris Dean, on Norfolk Country Photographs.



14.1 Impact to tourism

Site 7 sits in the heart of South Norfolk and within easy reach of multiple tourist destinations, local as well as county wide. The north Norfolk coast is within an hour's drive and the Norfolk Broads within 30 minutes.

The villages across Site 7 (Saxlingham Nethergate, Tasburgh, Hempnall and Woodton) are centrally located between the historic, and cultural county capital of Norwich to the north and the Suffolk border with the historic market town of Diss to the south, Harleston and Beccles; all only 10 miles away.

The Suffolk historic market town of Bungay is 8 miles to the east with Wymondham 8 miles to the west.

The impact to the local, and wider area, is likely to have a significant negative effect on the local economy and must be considered.

The City of Norwich is an easy 20 minute drive up the A140 and can also be reached by direct train from Diss or a direct bus from A140 to the city centre.

Norwich is a popular destination for long weekends and short trips to enjoy the visiting London shows at the Norwich Theatre as well as the two impressive cathedrals of St John's Catholic Cathedral and the Norwich Cathedral in Tombstone. Pop-up galleries, many independent shops like Jarrod's Department Store as well as the multiple restaurants serving locally sourced food. The University of East Anglia with the green space of Earlham Park is the home to the amazing Sainsbury's Centre art exhibition facility and are also very popular tourist destinations.

The proposed East Pye Solar project, including Site 7, raises major concerns that it will disrupt local tourism in South Norfolk by transforming rural landscapes into industrial-style energy sites and can't be ignored nor avoided by anyone using the A140 north or south.

The development of 2,700+ acres of land near picturesque local villages such as Hempnall, Saxlingham, Great Moulton and Brooke as well as the central hub of Long Stratton, has led to concerns about its impact on the "enjoyment of the countryside" and the viability of local, rural-based tourist businesses, such as holiday lets, local pubs and restaurants, and small activity sites like the Tank or Steam Museums. These businesses rely on tourism and can be the 'make or break' for some.

Potential impacts on local tourism include:

- **Alteration of Rural Character:** The 4.5m high solar panels (tracker panels), multiple substations and BESS at Great Moutlon will negatively affect the scenic, quiet, and rural nature of the area, which is a major draw for visitors and tourists;

- **Impact on Local Accommodation:** Local residents, such as those running holiday lets fear that the industrial-like installations will make their businesses "completely unviable" because guests come for a quiet, rural experience;
- **Visual Impact and Amenity:** industrialisation of the countryside and the visual impact of the panels and industrial infrastructure will detrimentally impact tourism receptors;
- **Construction Disruption:** a minimum of 2 years construction noise, traffic, and road closures associated with the project could **permanently** discourage tourists and impact local tourism-based businesses;
- **Loss of Public Amenity:** The development will affect public rights of way, and inhibit the enjoyment of walking in the area, a popular activity in South Norfolk in particular the waymarked Boudicca Way;
- **Construction Traffic:** road safety will be negatively impacted, making cycling on previously quiet roads and lanes unattractive.

The scale of the project will significantly alter the area's attractiveness, affecting the local tourism industry, particularly around the 26 villages where the solar panels and battery storage are planned.

The A140 and B1527 are main routes into and out of Norfolk and Suffolk. They will be significantly disrupted over the 24 or so months of construction, with traffic delays caused by East Pye Solar construction vehicles and road alterations having negative impacts for tourism and businesses in local areas as well as county wide.

The A140 is a main route to the Norfolk Broads National Park that attracts almost 8million visitors a year. The Old Buckingham Airshow, 9 miles to the west of Long Stratton, attracts 10,000 visitors over the two day event, which includes displays by the Red Arrows.

Locally, the Tank and Steam museums at Forncett; the Woodlands Trust Tyrells Wood named as one of the most beautiful woods to visit; walking and cycle routes of Boudicca Way and Rebellion Way; and many local farms diversifying with tea shops, restaurants and farm shops like Tilla Farm Shop at Limetree Farm on Fairstead Lane will be devastated by construction traffic preventing visitors to gain access.

With great transport and road networks to all areas of Norfolk, this part of South Norfolk affected by the East Pye Solar scheme, are a good and popular choice for visitors not wanting to stay just in the city.

Two or more years of construction disruption as well the long-lasting visual effect of the scheme is enough to ruin multiple businesses in the local area.

South Norfolk alone contributes more than **£212 million** annually to the local economy.
Broadland and South Norfolk
This figure reflects a significant visitor economy that supports nearly **4,000 jobs and** involves over **1,200 businesses** across the district and the tourist sector remains a critical pillar of South Norfolk's growth strategy.

Broadland and South Norfolk

Key points regarding the local tourism economy include:

- **Wider County Impact**: Tourism is one of Norfolk's largest sectors, worth approximately **£3 billion to £3.6 billion** per year to the county as a whole. Norfolk County Council
- **Strategic Growth**: South Norfolk Council recently identified the visitor economy as a priority for its 2024–2028 Strategic Plan, focusing on its eight market towns. Broadland and South Norfolk
- **Employment**: The sector accounts for nearly **20% of all jobs** across Norfolk, including South Norfolk's rural areas. Norfolk County Council

With Tasway Solar Park paused in planning but proposing to use East Pye Solar infrastructure if passed, the cumulative impact of East Pye and any further renewable industrial infrastructure on Norfolk will have devastating effect to local and county wide tourism which will struggle to recover when the county is an unattractive place to visit. The cumulative area covered by both East Pye and Tasway will be the same as that of Great London.



The ancient buildings and attractive rural landscape of Saxlingham Nethergate and surrounding areas such as Caister St Edmund Venta Icenorum, an Iceni settlement and the Boudicca way which runs along the green and across much of Site 7 including Fairstead Lane, make it a well-visited locality for tourists, with easy access to Norwich and the Broads. Several air B&Bs and Hill House (Grade II listed) holiday/event venue provide accommodation and hospitality. The area is well-used by walking and cycling groups because of the attractive and peaceful landscape which includes several historic monuments. The thriving village community holds summer fetes and there are regular activities in the village hall. The sports fields are in regular use for football and cricket matches. Hot-air balloons based in the area regularly fly over the village. All of these activities are going to be negatively impacted by this project. Tourists are not going to want to visit what will essentially be an industrialised landscape.

Many visitors holiday in this part of Norfolk because of the unspoilt, uncommerialised rural landscapes and quiet lanes. East Pye Solar scheme would discourage anyone who wished to visit for that purpose due to the vast and scattered pattern of solar fields industrialising the landscape for miles around. **Every** footpath and road radiating from Hempnall would have a solar field or electricity substation either adjacent to it or in easy line of sight.

Significantly affected would be Brick Barn AirBnB, a boutique barn accommodating 10 guests. Brick Barn has an uninterrupted view of both sub-sites 7B and 7C, both lying within 250m.

The Snug AirBnB, which lies within the Hempnall Conservation Area, is, like many other places offering holiday accommodation, aimed particularly at guests wishing to explore the beauty and tranquility of the local area, and especially cyclists. This attraction will be completely erased and without doubt, the guests likewise.

14.2 Impact to local businesses

Local enterprise schemes are trying to encourage new businesses to invest into the area especially with the expansion of Long Stratton just to the south of Site 7. But with the considerable impact to the Hempnall roundabout and the A140 as well as other small local lanes, the area will potentially be avoided completely.

In addition to the impact to tourism, deliveries will take longer to arrive which will impact local jobs and businesses that rely on this service.

Trades, like building contractors and independent businesses like plumbers, will take longer to move about the area, reducing the number of jobs taken on per day and potentially raising prices or losing money.

Local businesses, especially hospitality, will be negatively impacted by this project due to the reduction in tourism. A temporary increase in trade for local food shops and hospitality venues may occur during the construction phase only but so will the traffic.

14.3 Impact to agricultural contractors

Employment to local residents in agricultural service is one of the main areas of employment in rural environments, particularly in South Norfolk.

Due to the large area of agricultural land proposed for East Pye Solar, there will be a drop in demand for agricultural workers as local farmers and land owners will require less help. This, in turn, could lead to a lower sense of worth within the agricultural employment sector as well as less income, poorer communities and less local food providers leading to food traveling further to meet demand.

Local contractors may revocate to other jobs or move to another area for work as supply and demand changes. Agriculture employs the largest workforce across the UK and food security relies on knowledge and experience often passed down through generations and from a very early age.

This makes jobs in the following areas vulnerable as agricultural workers do more than just ‘work’ the land, they are custodians of the land and countryside for generations to come:

- Ploughing
- Spreading
- Sowing
- Drilling
- Spraying
- Fertiliser spreading
- Harvesting
- Baleing
- Hedge cutting
- Ditch maintenance
- Road drainage support
- Snow clearing
- Road clearing from fallen trees
- Footpath maintenance
- Seed Providers
- Agricultural Merchants
- Machinery providers

Land parcel 7 is 810 acres of BMV 1-3a and equates almost a third of the total East Pye Scheme. If granted consent it will go towards the total loss of 2718 acres of BMV agricultural land in South Norfolk for a duration of 60 years or forever as the soil would be downgraded to poorer quality and without the commitment of a decommissioning bond, never restored.

East Pye Solar have stated that no full-time onsite jobs will be created after construction as most operations can be carried out remotely.

This scheme will reduce local employment within the extended agricultural sector and reduce a sense of worth in the agricultural industry as a whole.

East Pye have also stated that it is not anticipated that during the construction and decommissioning of the scheme that any local new jobs will be created as an existing workforce, temporarily relocated, will be used. This is clearly at odds with Chapter 6 of the National Planning Policy Framework.

14.4 Impact to home values

Site 7 sits across multiple villages and close to the central and expanding hub of Long Stratton with Site 4 A and B at the northern gateway to Long Stratton dissected by the A140 and with Site 2C at the southern gateway. The entrance and exit will be like a tunnel of panels announcing Long Stratton to anyone entering the area or bidding them farewell. However, why would anyone want to stop to explore the area?

- Falls in the value of houses near to utility solar farms are one of several 'externalities' of solar farm construction rarely considered or, if so, routinely dismissed by solar developers;
- Although some developers and valuers claim there is no effect, or even a slight increase in the value of houses near to solar schemes, more careful studies reveal an adverse effect;
- The closer to a utility solar farm and the larger the installation, the greater is the adverse impact on house values. Houses in more rural areas are more likely to be affected than those in more urban areas as the market is generally slower, although it is difficult to quantify this effect.

https://www.solarq.org/propertyanalysis

Some local estate agents have predicted a 30% drop in house price to anyone within the immediate vicinity, during and immediately post development compared to pre-proposal. To some that is several hundred thousand sterling and has already made their home unsaleable and in negative equity.

House prices are also less likely to recover post development, especially in the countryside where people want fields not industrial infrastructure. Who would choose to live in an area that has been industrialised or at risk of further industrialisation? I wouldn't, would you?

Long Stratton has planned expansion as part of the Long Stratton Neighbourhood Plan (2019-2026) for 1800+ homes, a school and community space over the next 10 years. Creating a sense of being, a desired place to live, work and invest. This will bring new investment and enterprise into the surrounding villages, not just Long Stratton.

Site 7 is surrounded by several Conservation Areas and many listed properties within the full site of the development. Many of these properties have clear and uninterrupted views over open farmland at present. This proposed development absolutely dwarfs all of these properties. Destroys the property value, removes amenities and significantly ruins quality of life in this rural environment.

There is no way that all the properties that are impacted by the sprawl of Site 7 could avoid glint and glare. It would be an ongoing problem and constant source of complaint.

These lands have been farmed for hundreds of years by their respective generations. This proposal would change the character of the rural environment to that of security fencing, CCTVcameras and black glass panels higher than a double decker bus.

The negative effect of East Pye Solar on surrounding homes, multiple villages and the surrounding countryside cannot be mitigated against.

Houses that are currently being valued have reduced by between 5-10%. Worse, the properties affected are not selling and languish on the market. They are a very unattractive proposition for purchasers as potential buyers know that if the project goes ahead the surrounding countryside will be totally spoiled. Where once properties in Saxlingham Nethergate were sought after and rarely on the market for long, they are now being shunned.

14.5 Impact to home insurance

A large scale industrial development nearby to residential properties can significantly impact home insurance policies, leading to:

- increased premiums;
- tighter underwriting restrictions;
- in some cases, difficulty in renewing coverage.

Increased premiums are the primary impact due to:

- Increased presence of machinery;
- higher traffic;
- potential environmental hazards increasing risk;
- Elevated fire risk

Large scale developments can change the local topography affecting natural drainage and potentially flood risks. Reducing natural barriers can exacerbate windstorm risks.

Restriction of coverage to basic perils, rather than comprehensive cover, if perceived risks are too high.

Construction Risks:

Ongoing development can cause;

- noise;
- vibrations;
- dust;
- heavy traffic

Hazards can be temporary but also can also cause more permanent damage especially to vulnerable, older structures like the Grade I listed Churches, clay-lump and wood framed structures.

Changing the nature of the soil can increase or reduce moisture which, in turn, can affect buildings close to developments potentially causing subsidence.

Large-scale solar farms can have an indirect impact on house insurance, primarily through potential changes to property value.

14.6 Cumulative Impact of all proposed development

The cumulative impact of the proposed East Pye Solar scheme, the Long Stratton Neighbourhood Plan, including Tharston park and the development for the by-pass land, and the associated infrastructure is expected to create a "re-engineering of South Norfolk's rural fabric". The combination of massive solar industrialisation and rapid urban expansion (doubling the town's size) will likely lead to significant, long-term changes to the landscape, traffic patterns, and community structure of South Norfolk.

Key Cumulative Impacts:

- **Industrialisation of the Landscape:** East Pye Solar coupled with other nearby proposals of Tasway, Bloys Grove and multiple other renewable energy schemes in planning creates a massive, continuous "energy zone" of panels and battery storage (BESS) bordering and surrounding the residential growth in Long Stratton. Including the Bloy's Grove energy development at Mulbarton 5 miles away (in construction) and the massive energy development on the A47 this transforms a predominantly agricultural area into an energy-industrial landscape or factory.
- **Residential and Visual Impact:** The combination of 1,800+ new homes and solar panels up to 4.5m high (described as the height of a house) will cause significant visual impact on local residents and users of public rights of way.
- **Traffic and Infrastructure Pressure:** While the Long Stratton by-pass aims to relieve the town centre, the combined construction traffic from both the 1,800-home development over the next 10 years and the 500MW East Pye Solar project will likely place immense, prolonged pressure on the A140 and surrounding rural lanes. East Pye Solar have already reported the impact on the A140 by-pass is greater than acceptable and alternatives now need to be found. This will have a knock on effect to all local lanes and villages;
- **Agricultural and Ecological Impact:** The loss of significant areas of productive farmland to both solar panels and housing development is a major concern.
- **Community and Social Changes:** The transformation of a tranquil and rural, agricultural environment across multiple local villages being filled with solar, will permanently change the character of the area.

Specific Project Details:

- **East Pye Solar (Island Green Power):** A Nationally Significant Infrastructure Project (NSIP) aiming for 500MW, impacting villages like Hempnall, Great Moulton, and Saxlingham Nethergate, with potential compulsory purchase of land.

- **Long Stratton Development Plan:** Aims for 1,800 new homes, new bypass, schools, and employment land, effectively doubling the town's size.Broadland and South Norfolk

The cumulative effect, according to CPRE Norfolk, is that the area could become a focus for further industrial development.

Chapter 15: Soils and Agriculture

Introduction

The development of Groundmounted Solar Panels (GPVs) and associated infrastructure is likely to affect soils in a myriad of ways beyond just carbon, during both the construction and operational phases.

(A. Armstrong, S. Waldron, J. Whitaker, N.J. Ostle Wind farm and solar park effects on plant-soil carbon cycling: uncertain impacts of changes in ground-level microclimate)

However, effects are expected to be highly context-dependent and be influenced by several variables, including climate, ecosystem type, land management history, predominant soil type, construction, vegetation establishment and management, and overall operation and management practices. Evidence of such effects has been limited to date. https://www.sciencedirect.com/science/article/pii/S1364032124007585#bib11

If evidence is limited, why is it acceptable to plaster huge swathes of BMV food growing agricultural land in industrial infrastructure that will cause soil damage for decades after the decommission turning this BMV to brownfield? What is the ulterior motive?

15.1 Impact of Solar infrastructure on Soil Quality

Solar infrastructure impacts soil quality through construction-related compaction and erosion, combined with operational changes in microclimate, reduced rainfall infiltration, and altered vegetation patterns. While shading can improve moisture retention, it often reduces plant productivity and soil organic carbon, potentially leading to long-term soil nutrient accumulation, altered microbiota, and reduced soil quality. ScienceDirect.com

Lancaster University looked at the impact on the land solar infrastructure is built on and noted that the soil health was affected. The ground directly under the panels was more compacted, with implications for water infiltration and root growth. It contained lower levels of organic carbon and particulate organic matter (likely due to reduced plant productivity), essential for soil-related ecosystem services (e.g., soil carbon storage). The legacy of past agricultural activity was also evident, with relatively high concentrations of plant-available nitrogen and phosphorus in solar farm soils.

Plant growth and biomass were significantly lower beneath the solar panels than the gaps between them or open pastureland, a reduction attributed to decreased sunlight and changes in the microclimate under the panels.

https://portal.lancaster.ac.uk/portal/news/article/research-sheds-light-on-solar-park-eco-impacts-but-clever-design-offers-a-solution

Key Impacts on Soil Quality:

- **Compaction & Structure:** Heavy machinery during construction causes soil compaction, reducing porosity, disrupting soil aggregates, and hindering root growth.
- **Erosion & Topsoil Loss:** Clearing vegetation and altering drainage patterns can lead to significant water and wind erosion, removing fertile topsoil.
- **Microclimate Changes:** Solar panels create shade, leading to lower soil temperatures and altered evaporation rates. This can create localized areas of higher soil moisture (under panels) but also lead to reduced water infiltration in other spots.
- **Nutrient & Chemical Changes:**Reduced rainfall under panels can decrease nutrient leaching, causing an accumulation of salts and minerals. However, the reduction in vegetation can reduce organic matter input, reducing soil carbon.
- **Microbial Activity:** The altered environment can change the composition and function of soil microbes, sometimes causing them to consume soil organic matter due to a lack of carbon inputs. ScienceDirect.com

Context-Dependent Factors:

- **Vegetation Management:** The presence of vegetation is vital for soil health; sites that manage vegetation well can mitigate negative impacts.
- **Soil Type & Climate:** Impacts are more severe in arid regions (dust) or areas with sensitive soil types.
- **Duration:** While some studies suggest soil can recover during long-term (20-40 year) resting periods, others indicate lasting, potentially negative changes. ScienceDirect.com

15.2 Soils and Compaction

Site 7 of the East Pye Solar proposal lies within a landscape dominated by **high-quality agricultural soils BMV Grade 1-3a.**

These soils are:

- Structurally intact
- Highly productive
- Crop rotated for best soil management
- Rich in biological activity
- Supported by long-established germinate systems
- Free from industrial disturbance

This baseline is **highly sensitive** to physical disturbance, compaction and hydrological change.

Compaction by heavy machinery during construction negatively impacts root growth speed, length, and oxygen access to microbiota. These can all potentially affect soil carbon storage, and thereby limit soils' ecological and climate-regulating functions.

https://www.sciencedirect.com/science/article/pii/S1364032124007585#bib11

Soil compaction is a major, often long-term, environmental impact of ground-mounted solar farm development, occurring primarily through the use of heavy construction machinery.

It causes structural damage, reduces water infiltration, increases surface runoff, and negatively affects soil biodiversity and plant growth.

https://www.gov.wales/sites/default/files/publications/2023-08/impact-solar-photovoltaic-sites-agricultural-soils-land-spep21-22-03-work-package-4.pdf

Impacts During Construction

- **Heavy Machinery Trafficking:** The movement of heavy vehicles during site preparation, trenching, and panel installation crushes soil particles and destroys soil structure, particularly when working in wet conditions.
- **Surface and Deep Compaction:** Compaction can occur near the surface or extend deep into the subsoil (up to 60cm or more), often requiring specialized equipment to fix.
- **Topsoil Degradation:** The compaction, along with potential stripping and storage of topsoil, reduces its fertility and productivity.

Sub-plot 7A on Fairstead Lane is planned for the access point to plot 7A and 7C but also potentially the whole of site 7 and some of site 8 with a haulage route across the site, exiting at Saxingham. This will have a significant impact to the soil compaction of Plot 7A is ALL haulage accesses at this site.

15.3 Soils and Contamination

The Environmental Statement itself identifies Site 7 as having complex ground conditions. The bedrock beneath Site 7 is the Crag Group, classified as a Principal Aquifer, while parts of Site 7 are underlain by Secondary A aquifer deposits. Sub-Site 7A also contains Alluvium, which can include soft and compressible silts, sands, peat and organic material. These conditions increase the importance of preventing contamination and avoiding unnecessary disturbance of the soil profile.

The proximity of Site 7 to Hempnall Beck is particularly concerning. The Environmental Statement identifies the southern part of 7A, all of 7B and parts of 7C as being close to or crossed by Hempnall Beck. Multiple field drains and smaller watercourses are also present. Hempnall Beck has previously been classified as having poor ecological quality and failed chemical quality. Any mobilisation of contaminated soil, sediment, hydrocarbons, concrete washout or other pollutants during construction could therefore have consequences beyond the immediate construction area.

There is also an important issue of uncertainty. The Planning Inspectorate specifically raised concerns during the scoping process that historic ground workings could present a risk of groundwater contamination and that the available ground investigation data covered only a small proportion of the proposed development area. The Inspectorate therefore considered that there was

insufficient information at that stage to rule out significant effects. Although ground conditions have subsequently been included in the Environmental Statement, the reliance on future ground investigation and mitigation does not eliminate the underlying uncertainty.

There is concern about the potential for construction activity to cause:

- compaction and irreversible deterioration of agricultural soil structure;
- mixing of topsoil and subsoil;
- rutting and erosion from construction traffic;
- mobilisation of existing contaminants;
- fuel, oil, hydraulic-fluid and chemical spills;
- concrete and cement contamination;
- contaminated sediment entering field drains and Hempnall Beck;
- pollution reaching groundwater through permeable aquifer materials;
- deterioration of soil drainage and infiltration characteristics; and
- failure to restore the land to its previous agricultural quality following decommissioning.

The applicant should therefore be required to provide substantially more site-specific evidence for Site 7 before consent is granted. This should include intrusive soil and groundwater investigation, testing for relevant contaminants, including hydrocarbons, metals, asbestos and PFAS where justified by the historic land-use assessment, and a clear assessment of pathways between contaminated soil, groundwater, field drains and Hempnall Beck.

There should also be a binding requirement for a Site 7-specific Soil Management Plan covering topsoil stripping, storage, reinstatement, compaction prevention, traffic management, erosion control and verification of soil restoration. The objective should not merely be to remove the solar equipment at decommissioning, but to demonstrate that the soil structure, drainage and agricultural capability have been restored to at least their pre-development condition **as requested by the Secretary of State to Botley West Solar.**

Given the presence of aquifer materials, the proximity of watercourses and the acknowledged uncertainties concerning ground conditions, the risks to soil and water have not been demonstrated to be sufficiently low to justify development at Site 7 without further investigation and stronger enforceable safeguards.

15.4 Impact of Microcracking, Leaching, Glass

The cumulative impact of solar panel glass cracking and subsequent **leaching** is a growing environmental and operational concern, primarily driven by **moisture infiltration**, which can cause toxic materials to seep into the surrounding soil and groundwater over time. While modern solar panels are designed for durability, cracked glass—often caused by hail, wind-blown debris, or improper handling—

breaks down internal seals, allowing rain to dissolve and carry away hazardous materials, including **lead**, **cadmium**, and **selenium**.
https://www.forbes.com/sites/michaelshellenberger/2018/05/23/if-solar-panels-are-so-clean-why-do-they-produce-so-much-toxic-waste/

Environmental and Health Impact (Leaching)

- **Contamination Risks:** When rain or environmental moisture penetrates cracked panels, it can leach heavy metals and harmful substances into the soil. **Sub-plot 7A and 7B Drain towards the Tas valley** with tributaries with a hundred metres of the plots. Toxic runoff could reach the river where breeding white clawed crayfish are found.
- **Toxic Materials:** Depending on the panel type, this may include cadmium telluride (CdTe), which is considered a carcinogen, as well as lead solder (common in silicon panels) and selenium (in CIGS panels).
- **Groundwater Contamination:** Over a 20-30 year lifespan, or immediately following extreme weather damage, these pollutants can enter the surrounding environment and potentially reach groundwater.
- **Increased Waste Pollution:** Improper disposal or failure to manage broken panels can lead to increased contamination in landfills, particularly if they are not treated as hazardous e-waste.
- **There are several private drinking water supplies across plot 7 as well as the Tas Valley and its tributaries within 100m some sub-plots on site 7. Leaching pollution into private water and the river Tas could be catastrophic.**

Performance and Safety Impact (Cracking)

- **Significant Energy Loss:** Microcracks and broken glass reduce panel efficiency. Cracked areas can cause **hot spots** that further damage the panel, potentially leading to a 60% or more reduction in power output.
- **Safety Hazards:** Cracked panels pose an increased risk of electrical shock or fire, especially during wet conditions.
- **Shortened Lifespan:** While panels are designed for 25–30 years, accumulation of cracks can render a panel inoperable much earlier. YDOC

Long-Term Management Challenges

- **High Replacement Costs:** Unchecked cracked panels often require complete replacement, increasing the cost of ownership and reducing the return on investment.
- **Recycling Difficulties:** The accumulation of contaminants and the structural damage make recycling complex, with many damaged panels ending up in landfills rather than being properly processed. ScienceDirect.com

15.5 Lack of Land Management Detail

The scoping report predicted by East Pye Solar in January 2025 provides insufficient detail on how the land within Site 7 will be managed during construction, operation and decommissioning.

The omission totally undermines the credibility of East Pye Solar's claims regarding:

- Biodiversity
- Soil Protection
- hydrological stability
- Landscape mitigation
- Agricultural recovery post-decommissioning
- Control of contamination and chemical inputs
- Management of hedgerows, ditches and field margins

Without a robust, enforceable Land Management Plan the environment effects of the development cannot be properly assessed.

Without detail they cannot show compliance with policy and they cannot demonstrate mitigation effectiveness, they cannot prove their alleged biodiversity net gain and they certainly cannot guarantee soil or water protection.

East Pye Solar cannot be measured against something that doesn't exist and has been omitted.

This is a fundamental and serious flaw and cannot be challenged without detail and cannot be remedied with conditions.

15.6 Soil Recovery Plan

The scoping report produced by East Pye Solar in January 2025 also fails to provide any detail on the soil recovery plan for Site 7 despite proposing to turn 810 acres of prime agricultural land into an industrial landscape for decades to come.

They have failed, to date, to detail how soils can be protected, hydrology can be restored, compaction can be reversed, contamination can be remedied and agricultural activity restored.

Long-Term and Reversibility

- **Persistence of Damage:** Soil compaction may take many years to recover and in some cases can be permanent.
- **Loss of Agricultural Value:** Compaction can lead to the loss of "Best and Most Versatile" (BMV) agricultural land, especially in wetter regions, by reducing its long-term versatility for future cultivation.

https://www.gov.wales/sites/default/files/publications/2023-08/impact-solar-photovoltaic-sites-agricultural-soils-land-spep21-22-03-work-package-4.pdf

"conceptual models linking PV solar energy to soil carbon must incorporate (or at least acknowledge) climate dependencies. Hence, as the PV solar energy industry is expected to

expand rapidly in the coming decades, the utility and results of existing soil Carbon frameworks in other sectors suggest that a universal framework between GPV development and operation, soil carbon, and broader soil health may be timely." ScienceDirect.com

With a cable route and haul road planned for Site 7, removing and storing top soil and sub soil in bunds, soil compaction, and disruption to field drainage systems among other things requires a soil recovery plan to be in place to support the loss of yield and quality through significant disturbance.

15.7 Lack of Decommissioning Bond

East Pye Solar has, to date, failed to provide a Decommissioning Bond, Restoration Guarantee or Financial Security Mechanism to ensure that the land will be fully restored at the end of the operation period.

The Secretary of State requested the applicant for Botley West to 'update the Soil Management Plan to secure the restoration of BMVL to at least their pre-construction agricultural land classification grade upon decommissioning. Appropriate monitoring to aid the soil restoration should also be outlined in the Soil Management Plan.'

The omission creates a significant financial, environmental and legal risk for local authority, landowners and the wider Community.

A bond is standard practice for development that:

- Disturb agricultural soils;
- Introduce contamination risks;
- Install extensive underground infrastructure;
- Require full restoration after long-term industrial use;
- Are operated by Special Purpose Vehicles that may not exist in 40 years.

East Pye Solar meets all of these criteria and the current absence of this Bond means that East Pye Solar fails to demonstrate financial responsibility.

Chapter 16: Ground Conditions

Introduction

Ground Conditions, Geotechnical Risk and Groundwater – Site 7

The Applicant for Site 7 has not demonstrated, through sufficient site-specific evidence, that the proposed solar development and associated electrical infrastructure can be constructed safely and satisfactorily having regard to the ground conditions and groundwater environment.

The Environmental Statement and supporting Ground Conditions Assessment do not adequately establish the detailed ground conditions necessary to demonstrate that the proposed foundations, piling, cable trenches, access infrastructure and electrical substations can be constructed without unacceptable risks.

1. Significant variability in ground conditions

The Applicant's own documentation identifies materially different geological conditions within Site 7A–7L.

Although much of Site 7 is underlain by Lowestoft Formation Diamicton, areas of **Alluvium** occur within 7A and the **Leet Hill Sand and Gravel Member** occurs particularly within 7B and 7C. The Applicant acknowledges that the glacial deposits can contain softer materials and bands of sand and gravel which may be water-bearing.

These are materially different engineering environments.

It is therefore not appropriate to assume that the performance of foundations within stiff Diamicton can be extrapolated across the whole of Site 7. Particular consideration is required at geological boundaries and wherever infrastructure crosses from competent Diamicton into softer alluvial or granular deposits.

2. Site 7A – alluvium and settlement risk

The presence of Alluvium within 7A is of particular concern because such deposits can comprise soft to firm, compressible material and may contain peat, silt, sand and basal gravel.

The Applicant's documentation also identifies saturated sub-alluvial gravels in the southern part of 7A.

This combination creates a credible risk of differential settlement and variable foundation performance. Such effects may be particularly important where PV rows, access tracks, cable routes or other infrastructure cross from stiff Diamicton into weaker alluvial deposits.

The issue is not simply whether the ground can support an individual PV pile. Differential ground movement across an array or between different elements of the development could result in pile rotation, changes in levels, structural stresses and long-term maintenance problems.

The Applicant should therefore provide sufficient intrusive investigation to establish the thickness, extent and engineering properties of the alluvial deposits and demonstrate how differential settlement will be controlled.

3. Site 7B and 7C – sand and gravel

The presence of the Leet Hill Sand and Gravel Member within 7B and 7C introduces a separate set of geotechnical and construction risks.

Granular deposits can have substantially different pile installation characteristics from stiff clay. Dense gravel and coarse inclusions can result in premature pile refusal, deviation or damage, while saturated granular deposits can result in groundwater ingress and unstable excavations.

These conditions are particularly relevant to the installation of underground cables and drainage infrastructure.

The Applicant should therefore demonstrate that its proposed foundation and piling solutions are suitable for the actual granular deposits encountered within Site 7 and provide evidence of representative pile testing or equivalent verification.

4. Differential settlement and piling

The Applicant identifies mini-piling as one potential foundation solution for the PV arrays, with piles potentially extending to approximately 4 metres.

However, the suitability and performance of such piles depend upon the actual geological sequence encountered at each location.

A pile founded within stiff Diamicton cannot necessarily be assumed to have the same capacity or movement characteristics as a pile passing through alluvium, sand or gravel.

The Applicant should provide:

- the geotechnical parameters adopted for pile design;
- expected pile lengths;
- axial and lateral capacities;
- allowable settlement criteria;
- anticipated pile refusal rates;
- procedures for dealing with premature refusal or pile deviation; and
- evidence from representative pile testing.

This is particularly important given the very large number of foundations required across the development.

5. Electrical infrastructure

The ground investigation requirements for lightweight PV structures should not be assumed to be sufficient for the substantially heavier electrical infrastructure.

The proposed substations and associated electrical equipment will impose concentrated loads and may require more substantial foundations than the PV arrays.

Particular attention is required at the **132 kV Project Substation in 7F**.

The Applicant should provide a site-specific assessment demonstrating that the proposed foundation solution can accommodate:

- bearing capacity requirements;
- total and differential settlement;
- groundwater conditions;
- variable superficial deposits;
- potential ground improvement requirements; and
- construction and maintenance loading.

The assessment should be provided before consent rather than relying solely upon a future contractor's detailed design.

6. Groundwater and aquifer protection

Groundwater is a particularly important issue at Site 7.

The underlying Crag Group sand and gravel is identified as a **Principal Aquifer**, while the superficial granular deposits can also provide groundwater pathways.

The construction of piles, deeper foundations and underground infrastructure therefore has the potential to interact with groundwater-bearing strata.

This concern is heightened at 7F because the proposed Project Substation is within a groundwater Source Protection Zone 3.

The Environment Agency has previously identified the need for appropriate foundation/piling risk assessment and has raised concerns regarding the groundwater conceptual model and the potential for piling to create preferential pathways.

The Applicant should therefore demonstrate, through a site-specific hydrogeological assessment, that the proposed foundation depths and construction methods will not create unacceptable pathways for contamination or otherwise adversely affect groundwater resources.

7. Excavation and dewatering

The presence of saturated granular deposits and alluvial material creates a credible risk of groundwater entering excavations.

This could affect:

- cable trenches;
- drainage infrastructure;
- substation foundations;
- temporary excavations; and
- other below-ground works.

Potential consequences include running sand, excavation instability, ground loss, increased dewatering requirements and changes to groundwater levels.

A general commitment to undertake dewatering where required does not demonstrate that these risks have been adequately quantified.

The Applicant should identify the areas where groundwater is likely to be encountered, provide representative groundwater monitoring data and specify the proposed excavation-support and dewatering methodology.

8. Slope stability

Parts of Site 7 are located on valley and sloping ground where the Applicant identifies locally increased land-stability potential.

There is no suggestion that Site 7 as a whole is unstable. Nevertheless, the combination of sloping ground, variable glacial deposits, groundwater, excavation, construction traffic and temporary loading warrants local stability assessment.

Such assessment should be undertaken for relevant substations, access routes, cable trenches, compounds and other significant earthworks.

9. Construction traffic and working platforms

The relatively light nature of the completed PV structures should not obscure the substantially greater temporary loads imposed during construction.

Piling rigs, cranes, HGVs and other heavy construction equipment may operate on ground which is locally weak or saturated.

This is particularly relevant to the alluvial and granular areas.

Wet-weather deterioration of clay soils could result in loss of bearing capacity, rutting and instability, potentially requiring additional stone, ground improvement or changes to the proposed construction footprint.

A detailed working-platform and construction-access assessment should therefore be undertaken for Site 7.

10. Further investigation should be secured by the DCO

It is recognised that detailed foundation design would ordinarily be undertaken after consent.

However, the Applicant should not be permitted to rely upon future investigation to resolve fundamental uncertainties which have a bearing upon the environmental acceptability of the scheme.

Where the assessment of impacts relies upon future ground investigation and construction controls, those matters should be secured through clear and enforceable DCO Requirements.

A **Site 7 Ground Conditions and Foundation Verification Plan** should be submitted to and approved by the relevant authority, in consultation with the Environment Agency prior to consent.

The Plan should include, as a minimum:

1. intrusive ground investigation;
2. boreholes, trial pits and/or CPTs at representative locations;
3. laboratory geotechnical testing;
4. investigation and characterisation of the Alluvium;
5. investigation of the Leet Hill Sand and Gravel Member;
6. groundwater monitoring and seasonal variation;
7. foundation and pile design parameters;
8. representative pile testing;
9. pile refusal and deviation procedures;
10. total and differential settlement assessment;
11. specific foundation assessment for the substations;
12. slope-stability assessment;
13. temporary working-platform design;
14. excavation-support requirements;
15. dewatering methodology;
16. aquifer and groundwater protection measures;
17. protection of private water supplies;
18. construction monitoring; and
19. procedures for unexpected ground conditions.

The evidence presently available does not adequately demonstrate that the proposed development can be safely and satisfactorily constructed across the full range of ground conditions within Site 7.

The principal concern is the combination of **compressible alluvium in 7A, granular and potentially water-bearing deposits in 7B and 7C, variable glacial deposits elsewhere, groundwater resources and the Principal Aquifer, the groundwater sensitivity of 7F, and the proposed extensive use of piling and other ground-penetrating works**.

These matters should be resolved through a properly defined and enforceable process.

The Examining Authority should not treat the present assessment as demonstrating that the geotechnical and hydrogeological risks of Site 7 have been fully resolved. Further site-specific investigation, foundation verification, groundwater assessment and construction controls should be secured before consent can be given.

In detail

East Pye Solar DCO environmental documents, including the **Phase 1 Ground Conditions Assessment** and the **Environmental Statement Chapter 16 – Ground Conditions**. The key point is that **Site 7 is not geotechnically uniform**: most of it is underlain by stiff glacial clay/diamicton, but there are important areas of sand and gravel and, particularly around 7A, softer alluvial deposits.

1. Ground conditions at Site 7

East Pye Solar divides Site 7 into **7A–7L**. The principal ground conditions are:

	Principal ground conditions	**Main implication**
7A	Lowestoft Formation – Diamicton, with **Alluvium** locally	Generally stiff clay, but alluvium can be soft/compressible
7B	**Leet Hill Sand & Gravel Member** over/around the Lowestoft Formation	Granular ground; potentially water-bearing and susceptible to running sand

7C	Lowestoft Diamicton + Leet Hill Sand & Gravel	Variable ground conditions
7D–7L	Predominantly Lowestoft Formation **Diamicton**	Generally stiff clay, but variable glacial deposits can occur

The ES specifically identifies Lowestoft Diamicton at 7A and 7C–7L, while **7B is unusual because the Diamicton is likely to be present but overlain by the Leet Hill Sand and Gravel Member**.

The Diamicton is described as a **pebbly chalky clay**, generally stiff when unweathered, but with the important qualification that softer glacial materials can occur within or beneath it. Bands of sand and gravel can also occur and may be **water-bearing**.

The particular concern at 7A

The BGS mapping identifies **Alluvium at 7A**. Alluvium is described as normally soft-to-firm consolidated, compressible silty clay, potentially containing silt, sand, peat and basal gravel. This is why the overall site-wide compressibility hazard is assessed as **Very Low to Moderate**, with the *moderate* component specifically attributed to peat/alluvium in areas including **7A**.

Site 7 can not be characterised simply as “good stiff clay ground”. **There are localised but important weaker/variable ground conditions that need to be dealt with in the detailed design.**

2. Principal risks to constructing the solar scheme

A. Differential settlement

This is probably the most important structural/geotechnical issue.

Solar panels are generally supported on relatively light piles/posts, but the scheme also includes heavier infrastructure such as:

- inverter/transformer stations;
- substations;
- access tracks;
- fencing;
- cable infrastructure;

- drainage;
- construction compounds; and
- potentially substantial foundations for electrical equipment.

Where the system moves from stiff Diamicton into softer alluvium, made ground, weathered material or loose granular deposits, there can be **differential movement**.

For the PV arrays, even relatively small differential movements can be problematic because they can:

- alter panel alignment;
- impose stresses on panel frames;
- affect tracking/alignment if tracking systems are used;
- cause pile rotation or lateral movement; and
- create maintenance issues.

The risk is particularly relevant around **7A and transitions between geological units**.

B. Piling/foundation variability

The ground conditions could produce substantially different pile-driving behaviour across Site 7.

In stiff Diamicton, piles may encounter:

- high driving resistance;
- flints/chalk/gravel;
- refusal or premature refusal;
- obstructions within the glacial sequence.

Conversely, in sand/gravel or softer alluvial ground, piles may have different axial and lateral capacity and potentially greater movement.

This means that **a single assumed ground model or pile length across the whole of Site 7 would be inappropriate**.

The applicant itself recognises the need for further ground investigation and foundation-specific assessment. The ES also notes the need for piling risk assessments where deep foundations/piling could interact with groundwater.

C. Running sand and groundwater

This is particularly relevant to **7B and 7C**, because the Leet Hill Sand and Gravel Member occurs there.

The Phase 1 GCA identifies a **Very Low to Moderate running-sand hazard**, with the moderate potential associated with granular deposits including the Leet Hill Sand and Gravel Member and specifically identifying **7B and 7C**.

The significance is mainly during excavation rather than simply from the presence of the solar panels.

If excavations extend below the groundwater level, loose granular material can potentially:

- run or flow into excavations;
- destabilise excavation sides;
- cause local ground loss;
- increase pumping/dewatering requirements;
- mobilise fines;
- create temporary construction instability.

This becomes particularly important for **cable trenches, drainage structures, substations and other deeper excavations**.

D. Slope stability

Site 7 occupies part of the valley system between Tasburgh and Hempnall.

The GCA assesses the overall landslide hazard as **Very Low, locally Low**, but specifically identifies the valley slopes as areas where the risk is elevated. It identifies **southern 7A, southern 7C and all of 7B** amongst the areas with this locally increased potential.

The combination of the following needs to be considered:

- sloping ground;
- glacial deposits;
- water;
- excavation;
- temporary construction loading;
- altered drainage; and
- potentially concentrated infrastructure loads

The risk is greater during construction than for the completed lightweight PV arrays.

3. Groundwater and aquifer risk

Site 7 is underlain at depth by **Crag Group sand and gravel**, which is classified as a **Principal Aquifer**. The superficial Lowestoft deposits are generally classified as a Secondary Undifferentiated Aquifer.

This creates a potential pathway between construction activity and groundwater.

The particular concern is **piling or deep foundations penetrating through the superficial deposits towards the aquifer**.

The Environment Agency specifically raised concerns about piling creating contaminant migration pathways into deeper groundwater and recommended **Foundation Works Risk Assessments/Piling Risk Assessments**. The ES incorporates this requirement into the proposed mitigation.

Consequently, the issue isn't necessarily that the solar panels themselves pose a major groundwater risk. It is that **thousands of piles, cable trenches and deeper foundations could collectively interact with groundwater and geological strata**.

4. Shrink/swell clay

The Diamicton is a cohesive clay, so there is also some shrink/swell potential.

The assessment rates the overall potential as **Low to Moderate**. The Diamicton is expected generally to have low-to-medium volume change potential, with the weathered upper layers potentially more susceptible than the underlying unweathered material.

For a solar farm this is less concerning than it would be for conventional buildings, because PV structures impose relatively small vertical loads.

However, it can matter for:

- inverter stations;
- substations;
- concrete slabs;
- buried services;
- access roads;
- drainage structures; and
- interfaces between different foundation types.

5. Dissolution / chalk-related ground risk

There is a **moderate potential for naturally occurring dissolution features** across the wider East Pye site.

The GCA explains that the chalk/Crag interface is a significant karstic horizon and that historic glacial erosion and subsequent deposition can influence where dissolution features occur. The risk is affected by the thickness of overlying deposits, buried valleys and groundwater levels.

This reinforces the need for **site-specific investigation at locations of concentrated structural loading**, rather than relying entirely on desk-study mapping.

6. The overall construction risk on Site 7 is as follows:

PV arrays: Moderate geotechnical risk

The arrays are relatively light and can generally tolerate the ground conditions, but the variable geology means pile design and installation will need to be based on adequate ground investigation. Differential ground conditions are the principal concern.

Substations/heavy electrical equipment: Moderate–High localised risk

These impose much greater foundation loads and may require deeper/heavier foundations. The presence of variable clay, sand/gravel, groundwater and the Principal Aquifer makes detailed geotechnical and hydrogeological design particularly important.

Cable trenches: / Moderate risk

Especially where trenches encounter groundwater, granular deposits or alluvium. **7B/7C** deserve particular attention because of the sand/gravel and running-sand potential.

Construction access/haul roads: Moderate risk

Wet weather could significantly affect clayey ground. Local soft alluvial ground could require temporary working platforms or improved formation.

Slope/earthworks: Moderate locally

The risk is not widespread landslide instability, but particular care is needed around valley slopes, particularly 7B and parts of 7A/7C.

7. The bigger issue: is the scheme adequately investigated?

There is a potentially important planning/examination question.

The published assessment is fundamentally a **Phase 1 / desk-study-led assessment**, supplemented by some targeted investigation elsewhere on the wider project. The documents themselves recognise that the detailed ground conditions and foundation requirements need to be established through further investigation and design.

The scheme is also very large—up to **500 MW**—and Site 7 contains **a 132 kV substation at 7F** and a haul road across most of the site.

That makes the **site-specific ground investigation at 7F particularly important**, rather than treating Site 7 as a single homogeneous area.

The critical questions are:

1. **How many boreholes/CPTs/trial pits have actually been undertaken within 7A–7L?**
2. What are the **depths and thicknesses of the Diamicton, sand/gravel and alluvium**?
3. What groundwater levels were encountered, and over what seasonal monitoring period?
4. What pile type and pile lengths are proposed?
5. Has **pile load testing** been undertaken in representative ground conditions?
6. What happens where piles transition from stiff Diamicton into sand/gravel or soft alluvium?
7. What is the proposed foundation solution for the **7F 132 kV substation**?
8. How will excavations through the running-sand areas be supported?
9. What construction methodology will prevent piling from creating groundwater contamination pathways?
10. How will differential settlement between different geological units be controlled?
11. What wet-weather construction restrictions will apply?

Site 7 is not geotechnically straightforward. The majority of the site consists of relatively stiff glacial Diamicton, however, the **localised alluvium at 7A, extensive granular material around 7B/7C, variable glacial geology, groundwater, valley slopes and the underlying Principal Aquifer create a series of site-specific risks.**

The **most material risks are differential foundation performance, pile installation/design variability, groundwater interaction and running sand during excavation**, with the risk becoming more significant for the heavy electrical infrastructure than for the PV panels themselves.

Executive conclusion

Site 7 risks approximately as follows:

Issue	Risk	Assessment
PV pile installation in Diamicton	Moderate	Probably manageable, but requires site-specific pile testing/design
Differential ground conditions	Moderate–High locally	Significant at geological boundaries and 7A
Alluvium / compressible ground	High locally	Requires specific investigation and foundation treatment
Sand/gravel and groundwater	Moderate–High	Particularly important at 7B/7C
Running sand / trench instability	Moderate	Important for construction methodology
Groundwater / aquifer protection	Moderate–High	A material issue because of deep foundations/piling
7F substation foundations	Moderate–High	Requires considerably more evidence than PV arrays
Slope stability	Moderate locally	Not a general instability problem, but needs local assessment

Shrink/swell	□ Low–Moderate	Manageable, principally relevant to heavier structures
Dissolution/variable chalk interface	□ Moderate	Requires appropriate investigation at concentrated loads
Construction working platforms/access	□ Moderate	Potentially significant in wet conditions
Overall adequacy of current Site 7 GI evidence	□ **Questionable**	

1.What the applicant actually knows about Site7

The applicant's **ES Chapter 16 is not a detailed geotechnical design report**. It expressly says its baseline is principally derived from the **Phase 1 Ground Conditions Assessment**, desk-based information and BGS archive exploratory holes. The Phase 1 assessment itself describes its work as a desk study, site walkover, Tier 1 contamination assessment and preliminary ground-stability assessment.

That matters because the development is not simply a collection of lightweight panels.

The scheme includes:

- PV arrays;
- driven/screwed PV foundations;
- inverter/conversion equipment;
- cable trenches;
- drainage;
- access roads;
- substations; and
- substantial electrical infrastructure.

The applicant says the PV structures may be mini-piled to **up to 4 m**, screw-mounted, or use concrete/other non-penetrative foundations, with mini-piles assumed as the standard option for the assessment.

There is therefore a substantial difference between:

“The ground is generally suitable for a solar farm”

and:

“The applicant has demonstrated that every significant foundation and excavation can safely and satisfactorily be constructed at the proposed locations.”

The latter has yet been demonstrated for Site 7.

2. The geology of Site 7 is much more variable than the headline description suggests

The ES identifies Lowestoft Formation Diamicton across **7A and 7C–7L**. It describes the Diamicton as generally stiff pebbly chalky clay, but importantly says that it can contain or overlie **much softer glacial materials**, and that bands of sand and gravel can occur within or above the sequence and can be water-bearing.

Then there is **7B**.

7B is the exception: the Diamicton is likely to be present but is overlain by the **Leet Hill Sand and Gravel Member**. The ES identifies 7B and 7C as locations containing that glaciofluvial material.

And then there is **7A**, where the ES maps **Alluvium**.

The BGS description used by the applicant is particularly important: alluvium is normally soft-to-firm, compressible silty clay and can contain silt, sand, peat and basal gravel.

The concern

The geological model therefore isn’t:

one consistent stiff clay formation → uniform foundation conditions.

It is more like:

stiff clay / variable glacial deposits / sand & gravel / alluvium / saturated basal gravel / deeper aquifer.

That is a much more complicated foundation environment.

3. Site 7A — the alluvium is a significant local weakness

The applicant identifies alluvium at 7A, and its own description acknowledges that it may be compressible and may contain peat and granular layers.

The minerals assessment goes further and identifies **sub-alluvial gravels** at the southern end of 7A and states that these gravels are **always saturated and require wet working**.

That has several consequences.

Potential problems

1. Differential settlement

If a PV row crosses:

stiff Diamicton → alluvium → basal gravel

the pile response can change substantially over a relatively short distance.

The issue isn't simply vertical settlement of the whole solar array. Differential movement can produce:

- changes in pile head level;
- rotation;
- lateral movement;
- altered panel geometry;
- local stresses in mounting systems;
- problems with trackers, if used; and
- maintenance issues.

2. Heavy infrastructure is more sensitive

A substation or transformer foundation cannot simply be treated like a PV pile.

If shallow foundations are proposed on variable alluvial ground, the applicant needs to establish:

- allowable bearing pressure;
- settlement;
- differential settlement;
- consolidation;
- groundwater conditions; and
- whether ground improvement is necessary.

I have not seen evidence in the ES demonstrating those parameters specifically for Site 7A.

Technical conclusion

7A should not be treated as equivalent to the general Diamicton areas.

A condition requiring additional investigation before construction would be entirely reasonable here.

4. Site 7B — probably the most interesting area geotechnically

7B is particularly important because it is dominated by the **Leet Hill Sand and Gravel Member** rather than surface Diamicton.

The applicant describes this material as glaciofluvial sand and gravel with considerable variability in thickness, particle size and composition.

This creates a different set of problems.

A. Pile behaviour

A driven pile in sand/gravel behaves differently from one in stiff clay.

The design needs to account for:

- shaft resistance;
- end bearing;
- groundwater;
- dense gravel;
- possible cobbles/boulders;
- refusal;
- installation disturbance;
- pile installation tolerances; and
- lateral resistance.

The important question is therefore:

Where is the evidence of actual pile testing in the representative 7B ground?

The Phase 1 assessment cannot answer that question because it is not a pile design investigation.

5. Running sand and saturated granular material

This is not merely theoretical.

The mineral assessment identifies saturated sub-alluvial gravels and the Phase 1 assessment identifies granular deposits in the 7A–7C area.

During excavation, saturated loose granular material can behave very differently from stiff clay.

Potential consequences include:

- excavation collapse;
- running/slumping sand;
- groundwater inflow;
- piping/fines migration;
- increased pumping;
- instability around trench sides;
- loss of ground;
- difficulty installing ducts;
- instability of temporary working platforms.

This is especially relevant to **cable trenches and drainage infrastructure**.

The applicant's mitigation says temporary dewatering will be carried out in accordance with Environment Agency guidance and that licences/permits will be obtained if required.

That is sensible as general practice.

But it is **not the same as demonstrating the actual groundwater conditions and excavation requirements at Site 7**.

6. Groundwater is a much bigger issue than the residual-effects table suggests

This is, in my opinion, one of the most important aspects of the technical critique.

Site 7 sits over **Crag Group sand and gravel**, which the applicant identifies as a **Principal Aquifer**. The superficial deposits are generally a Secondary Undifferentiated Aquifer, with the granular deposits having greater groundwater significance.

More importantly, **7F's Project Substation lies within a groundwater Source Protection Zone 3**.

That makes deep foundation works more consequential.

The concern with piling

If piles penetrate through superficial deposits towards deeper strata, they can potentially create a preferential pathway.

The Environment Agency's scoping response was quite explicit about this. It said the conceptual understanding of groundwater was inadequate and called for, among other things:

- a **Foundation Works Risk Assessment or Piling Risk Assessment**; and
- a hydrogeological risk assessment for HDD works.

That is a very important piece of evidence for an objection.

It means this isn't merely an issue invented retrospectively by an objector.

The statutory environmental regulator itself identified uncertainty in the groundwater conceptual model and the need for further risk assessment.

7. There is an apparent tension in the applicant's assessment

The applicant's ES ultimately assesses residual hydrogeological effects as **Minor Adverse and Not Significant**.

But that conclusion is based heavily on mitigation and subsequent construction controls.

At the same time, the ES says that:

construction risk assessments will be informed by ground investigations undertaken within the Order Limits.

That raises a legitimate question:

If the detailed ground investigation is still to inform the construction risk assessment, how can the applicant be confident at DCO stage that the Site 7 foundation and groundwater risks are adequately characterised?

This is a legitimate **"requirement before works"** issue.

8. 7F deserves separate treatment

7F contains a **132 kV Project Substation**. The Phase 1 assessment identifies this as one of the Project Substation locations.

The applicant's groundwater information also confirms that the 7F substation is within SPZ3.

That means I would treat 7F differently from ordinary PV arrays.

A substation can involve:

- transformer foundations;
- equipment slabs;
- gantries;
- cable structures;
- drainage;
- oil containment;
- heavier concentrated loads;
- deeper foundations;
- access/cranage requirements.

The geotechnical consequence is that **the load-bearing and settlement requirements are more demanding than for a lightweight PV support**.

The question I would put to the applicant

Please provide the ground investigation data, groundwater levels, foundation concept, allowable bearing pressures, calculated total and differential settlements and proposed foundation solution for the 132 kV Project Substation at 7F, including evidence that the solution is suitable for the identified Diamicton and any granular horizons.

9. Site 7's slope conditions also deserve more than a generic assessment

The Phase 1 assessment identifies locally elevated land-stability potential in the valley/slope areas.

I would not argue that Site 7 is generally unstable. That would overstate the evidence.

The more defensible position is:

The scheme introduces excavation, loading, drainage alteration and construction traffic into an area containing variable glacial and alluvial deposits and valley slopes; therefore local slope stability should be demonstrated at infrastructure locations rather than relying solely upon a site-wide qualitative assessment.

10.The groundwater–surface-water connection is particularly important

The applicant itself acknowledges that the peat around CRC7 is likely to be in hydraulic continuity with the **Alluvium and Leet Hill Sand and Gravel Member**, and that the peat is associated with Hempnall Beck.

That is useful evidence.

It demonstrates that the superficial deposits around the Site 7 area aren't simply isolated dry geological layers.

There are potentially connected pathways:

Hempnall Beck ↔ alluvium ↔ granular deposits ↔ groundwater

pathways.

That makes excavation/dewatering and contamination control more important than if the granular deposits were isolated.

11. Private water supplies are another issue

The Phase 1 GCA identifies private water supplies near 7A, 7B and 7C.

In particular, it identifies a private water supply around 130 m southwest of 7A which is located in an area underlain by the Leet Hill Sand and Gravel Member and is assumed to be a shallow supply from superficial deposits.

There is also another recorded water supply approximately 190 m west of 7A, with the borehole encountering chalk.

The applicant concludes that credible risks to private water supplies have not been identified.

The relevant question is:

How can the applicant rule out construction-related effects on shallow and deeper private abstractions when the hydraulic connection between the superficial granular deposits, deeper Crag/Chalk groundwater and surface water is not fully characterised?

12. The applicant's reliance on "further investigation" needs to be controlled by the DCO

The DCO application does not contain final foundation drawings.

However, where the environmental assessment relies on assumptions that are dependent upon **future GI**, the DCO needs to ensure that the later design process cannot simply discover an unexpectedly difficult ground condition and deal with it without appropriate environmental control.

The applicant's Commitments Register says that environmental mitigation is secured through DCO Requirements and/or management plans, while the detailed design is also subject to approval.

That gives an obvious route:

Require a Site 7 Ground Conditions and Foundation Verification Plan.

It should cover, at minimum:

- intrusive GI;
- CPTs/boreholes;
- laboratory testing;
- groundwater monitoring;
- seasonal groundwater levels;
- pile testing;
- pile refusal criteria;
- lateral/axial pile capacity;
- settlement assessment;
- alluvial ground;
- granular ground;
- slope stability;
- temporary works;
- excavation/dewatering;
- aquifer protection;
- private water supplies;
- HDD where relevant.

13. A particular weakness: the ES is primarily an environmental ground-conditions assessment, not a foundation design assessment

The ES establishes a preliminary geological model, but the evidence provided is not sufficient to demonstrate that the proposed foundation and excavation solutions are technically suitable across the materially different ground conditions within Site 7.

14. The 4m PV pile assumption needs scrutiny

The applicant says PV mini-piles may extend to a maximum of 4m.

That assumption is important.

Suppose a pile encounters:

0–1 m weathered clay
1–2 m stiff Diamicton
2–3 m sand/gravel
3–4 m softer material

versus another pile encountering:

0–4 m stiff Diamicton.

Those two piles cannot automatically be assumed to have the same performance.

The applicant therefore needs to demonstrate that the proposed generic foundation envelope is valid for the full range of ground conditions.

Examination question

Please provide the range of geotechnical parameters assumed for the design of the PV mini-piles and demonstrate that the assumed maximum 4m pile length is appropriate for all representative ground profiles within Site 7, including transitions between Diamicton, Leet Hill Sand and Gravel and alluvium.

15. Pile refusal is an underappreciated risk

The glacial deposits contain abundant **flint and chalk gravel**. The applicant itself describes the Diamicton as containing abundant flint and chalk gravel.

The Leet Hill deposits are also gravel-rich.

Driven piles can therefore encounter local hard inclusions.

Potential consequences:

- refusal above design depth;
- damaged piles;
- pile deviation;
- additional piles;
- redesign;
- increased installation time;
- vibration;
- local ground disturbance.

For a very large solar array, even a modest percentage of piles requiring remedial treatment could become a significant construction issue.

The Applicant should provide a **pile installation and refusal protocol**.

16. Access roads may be more problematic than the panels

This is another area where the lightweight nature of PV structures can give a misleading impression.

A PV pile can impose a very small load.

A construction haul road supporting:

- cranes;
- HGVs;
- transformers;
- delivery vehicles;
- piling rigs;

is a completely different proposition.

Soft alluvial areas and wet clay can deteriorate rapidly under construction traffic.

That creates risks of:

- rutting;
- pumping;
- formation failure;
- imported stone requirements;
- increased construction footprint;

- drainage alteration;
- sediment runoff.

The applicant's soil-management controls should include a **construction access geotechnical assessment**. The ES says soil handling and stockpiling will be managed through the Outline Soil Resources Management Plan.

17. Climate and wet-weather resilience

The site will be constructed over multiple seasons.

Clayey ground can become significantly weaker when wet, while groundwater levels in alluvial/granular areas can rise.

The DCO should therefore establish:

- trigger levels for wet-weather suspension;
- temporary drainage;
- working-platform specifications;
- inspection regimes;
- restrictions on HGV movements;
- reinstatement requirements.

Otherwise the construction-phase ground risks are effectively being left to contractor judgement.

18. Further Investigation Required

The ground conditions are sufficiently variable and the groundwater receptors sufficiently sensitive that the applicant should demonstrate, through appropriately targeted intrusive investigation and controlled detailed design, that the proposed infrastructure can be constructed without unacceptable geotechnical or hydrogeological effects.

19. Examination Questions for the Applicant based on the varied Ground COnditions of Site 7

Q1. Ground investigation

Please provide a plan showing all intrusive ground investigations undertaken within Sites 7A–7L, including boreholes, trial pits, CPTs and groundwater monitoring points, together with dates, depths and results.

Q2. Investigation sufficiency

Please explain why the investigation density is sufficient to characterise the transitions between Diamicton, Leet Hill Sand and Gravel and Alluvium within Site 7.

Q3. 7A

Please provide the thickness, engineering properties and lateral extent of the Alluvium and sub-alluvial gravels within 7A and identify what foundation treatment is proposed.

Q4. 7B

Please provide the design geotechnical parameters for foundations within 7B and demonstrate that the proposed PV pile solution is appropriate for the Leet Hill Sand and Gravel Member.

Q5. Pile testing

Please identify all pile load tests undertaken in representative Site 7 ground conditions and provide the resulting axial and lateral capacities.

Q6. Refusal

What proportion of piles is expected to refuse before reaching design depth, and what is the proposed procedure for piles that cannot achieve the specified installation depth?

Q7. Differential settlement

Please provide the proposed criteria for allowable total and differential settlement for PV arrays and electrical infrastructure and demonstrate that these can be achieved across the identified geological transitions.

Q8. 7F

Please provide the preliminary foundation solution and settlement assessment for the 132 kV Project Substation in 7F.

Q9. Groundwater

Please provide groundwater monitoring data for Site 7, including seasonal variation, and explain the relationship between shallow groundwater, the granular superficial deposits and the underlying Principal Aquifer.

Q10. SPZ3

Given that the 7F Project Substation is located within SPZ3, please explain how piling/deep foundation works will be prevented from creating preferential contaminant pathways.

Q11. Piling Risk Assessment

Please provide the proposed scope and methodology for the Foundation Works Risk Assessment/Piling Risk Assessment requested by the Environment Agency.

Q12. Private water supplies

Please demonstrate that construction dewatering, piling and excavation will not adversely affect private water supplies in the vicinity of 7A–7C.

Q13. Running sand

Please identify locations where running-sand conditions could occur and provide the proposed excavation support and groundwater-control methodology.

Q14. Wet-weather construction

What objective criteria will trigger suspension of construction traffic/piling/excavation during periods of high groundwater or rainfall?

Q15. Working platforms

Please provide the design basis for temporary working platforms for piling rigs and heavy construction traffic over the alluvial and granular deposits.

21. Suggested DCO Requirement

No construction of PV arrays, substations, transformers, cable routes or other significant ground-penetrating infrastructure within Site 7 shall commence until a Site 7 Ground Conditions and Foundation Verification Plan has been submitted to and approved by the relevant planning authority, in consultation with the Environment Agency.

The plan should include:

1. detailed intrusive GI;
2. groundwater monitoring;
3. geotechnical laboratory testing;
4. foundation design parameters;
5. pile testing;
6. pile installation/refusal procedures;
7. settlement and differential settlement assessment;

8. alluvium treatment;
9. granular-ground treatment;
10. excavation support;
11. dewatering controls;
12. groundwater protection;
13. private water-supply protection;
14. slope-stability assessment;
15. working-platform design;
16. wet-weather construction controls; and
17. verification/monitoring during construction.

For **7F**, I would make the requirement particularly explicit because of the combination of substantial electrical infrastructure and SPZ3.

Conclusion

Site 7 ground model comprises materially variable glacial and alluvial deposits, including compressible alluvium, saturated granular deposits and areas of water-bearing sand and gravel. These conditions introduce potential risks associated with differential settlement, pile installation and capacity, excavation stability, dewatering and groundwater protection.

The risk is increased for the proposed electrical infrastructure, particularly the 132 kV Project Substation at 7F, where foundation loads and groundwater sensitivity are materially greater than those associated with the lightweight PV structures.

The applicant's current assessment is principally a Phase 1/desk-based assessment supplemented by geological archive information, rather than a detailed foundation investigation. The Environment Agency has itself identified deficiencies in the groundwater conceptual model and has recommended a Foundation Works/Piling Risk Assessment.

Accordingly, the evidence presently available does not fully demonstrate that the proposed Site 7 infrastructure can be constructed without unacceptable geotechnical or hydrogeological effects. The outstanding matters should therefore be resolved through a binding, site-specific ground investigation, foundation and groundwater verification process secured by DCO requirement before construction of the relevant infrastructure.

The Applicant has not yet demonstrated sufficiently, with Site 7-specific evidence, how they will build here safely and without unacceptable effects on ground stability and groundwater—and the DCO should not allow those critical decisions simply to be deferred to the contractor.

Chapter 17: Electromagnetic Fields

Introduction

Site 7 is the largest of all the sites across the Scheme and is made up of 12 sub-sites.

A cumulative size of 328 hectares or 810 acres, with a total external point to point boundary of 14.4km long and an internal area of 2140 acres.

Site 7 is of predominately agricultural fields across five Parishes; Tasburgh, Saxlingham Nethergate, Shotesham, Woodton and Hempnall.

The Conservation Areas of Saxlingham, Saxlingham Nethergate, Hempnall are within a few hundred metres of Site 7 with rural homes and business dotted across Site 7. This area is one of the most tranquil areas of South Norfolk, CPRE map.

The East Pye Solar Scheme proposes to introduce multiple sources of electromagnetic fields (EMFs) into this rural and residential environment not just across this vast cumulative site but from across the other nearby sites within a few hundred metres from site 7, including Site 4, Site 5 and Site 8A.

Site 7 includes inverters, transformers, the proposed 132kV Substation equipment, underground cabling and all the associated high voltage grid connection infrastructure.

Whilst EMFs are a normal by-product of electricity generation and transmission, the scale, proximity and concentration of equipment proposed for Site 7 creates legitimate concerns for residents, particularly where infrastructure is located close to homes, PRoW, private water supplies and sensitive receptors including children and the elderly.

EMFs can cause annoyance and a nuisance as a result of the audible hum from transformers, disturbance to medical devices including pacemakers, and also interference with electronic equipment. Where properties are close to this the impacts are more likely to be noticed; especially to children, elderly residents or residents with chronic health or mental health concerns.

An area that is so tranquil, is slightly elevated above the Tas Valley and with limited narrow country lanes is filled with sporadic agricultural noise and bird song. The cumulative effect of the Scheme in this area will be more noticeable as the baseline will be limited.

UKHSA and WHO guidance recognises that public health concerns about EMFs is itself a health and well-being issue, even where exposures fall below guidance levels.

East Pye Solar has yet to provide and assessment to demonstrate that EMF exposure will remain within accepted limits or that residents will not experience nuisance, anxiety, or health-related concerns.

As there are no mega-scale solar and associated infrastructure research in the rural countryside of the UK to date, it is impossible to state categorically that there will be no impact to residents

living and working within close proximity of these sites. But there are plenty of anecdotal experiences where local residents to sizeable solar schemes are suffering a continuous hum and headaches since a scheme has been running including inverter noise at Cleve Hill in Kent and the permanent humming from the BESS at Swainsthorpe a few miles away from Site 7.

However it's not just humans that can feel the effects of artificial EMF. Nature uses the earth's magnetic field for homing, to navigate and to forage however are also very sensitive to disruptions.

17.1 Bats

Effects on Bats and Activity

- **Reduced Activity:** Studies, particularly in the UK and France, found that total bat activity was roughly halved at the boundaries of solar sites and dropped by two-thirds in the center.
- **Species-Specific Impact:** Six of eight species/species groups surveyed, including Pipistrellus and Myotis species, showed a significant decrease in activity.
- **Behavioural Alterations:** Bats at solar farms tend to shift their flight towards faster and straighter trajectories. This indicates a reduction in foraging (hunting) behaviour, likely due to reduced feeding habitat quality (University of Bristol, British Ecological Society, BSG ecology, Science direct.com)

Conclusion

There is limited research on the effects of EMF on bats however many insects can detect electric or magnetic fields. If EMFs alter insect distribution or behaviour, bats could experience indirect effects through changes in prey availability, albeit largely hypothetical.

The area surrounding and including the East Pye Solar scheme is of crucial importance regarding all bats however in particular the Barbestrelle bats of which the area is of significant importance as a population enhancement area.

17.2 Bees

Bees are very sensitive to electromagnetic fields (EMF). Disruptions stem from both natural solar/geomagnetic storms and anthropogenic (man-made) sources. These forces can impair honeybees' ability to navigate, forage efficiently, and develop properly, which ultimately disrupts their crucial pollination services and plant reproduction (PubMed, Science.org)

Electromagnetic fields from solar panels, substations and power lines disrupt honeybee navigation, foraging efficiency and learning abilities. Because been rely on Earth's magnetic fields and natural floral electric cues, artificial EMFs cause physiological stress and disorientation (PubMed 2023).

For some time, farming practices and the use of pesticides have been to blame for the decline in pollinators. But with the significant increase in man-made interference through renewable energy

infrastructure, robust research on pollinator decline points directly to pylons and substations and the high-voltage infrastructure (PubMed 2023, 2018) (New Scientist 2023) (ehScience 2026)

Albeit solar and inverters generate relatively weak, primarily direct current the management of the sites are the main risk to these environments and resolve around poor habitat management.

Key Impacts on Bees

- **Navigation and Orientation:** Bees have specialised magneto-receptor cells containing iron granules in the abdomen. High-voltage power lines and equipment can easily confuse these systems;
- **Foraging Disruption:** Research shows need are less likely to visit flowers near strong EMF sources. Exposure has been linked to impaired olfactory learning and poor memory retention, leading to lost foragers and struggling colonies (PubMed 2023, 2018);
- **Electrical Noise:** Strong electromagnetic fields create static/parasitic signals around cables that can deter bees from landing on otherwise nectar-rich flowers

17.3 White-Clawed Crayfish

The white-clawed crayfish (Austropotamobius pallipes), an endangered freshwater crustacean, is susceptible to various environmental stressors, and emerging research suggests that electromagnetic fields (EMF) can act as a potential, albeit not fully understood, stressor on aquatic invertebrates.

Research indicates that low-level, non ionising EMFs—such as those from underwater power cables—can create environmental concerns and that existing safety standards, often designed for humans, may not sufficiently protect aquatic fauna. nsip-documents.planninginspectorate.gov.uk

Key findings regarding EMF effects on crayfish include:

- **Synaptic Transmission Enhancement:** Studies on crayfish (specifically the lateral giant interneuron) have shown that static magnetic fields (SMF) (e.g., 8.08 mT) increase the efficacy of synaptic transmission, particularly affecting the neural circuits responsible for "tail-flip" escape responses.
- **Ca2+ Dependent Potentiation:** The enhancement of neurotransmission by static magnetic fields is a calcium (Ca2+) dependent phenomenon.
- **Increased Activity/Stress:** While specific, long-term studies on A. pallipes are limited, broader studies on crustaceans suggest that high-intensity static fields can affect nerve functions and behavior, potential causing increased stress or behavioural alterations.

Contextual Factors:

- **Conservation Status:** The white-clawed crayfish is already heavily threatened by invasive species (signal crayfish) and "crayfish plague," making them vulnerable to any additional anthropogenic stressors, including, potentially, electromagnetic radiation.

- **Habitat Impact:** The primary concern in the literature is that subsea or underground power cables (e.g., in renewable energy projects) generate EMFs that can affect benthic organisms such as crayfish. nsip-documents.planninginspectorate.gov.uk

Conclusion on Effects:

Breeding colonies of white clawed crayfish have been located in the river Tas and its tributaries, which are within metres from the boundary of Site 7.

With sites 7A, 7B and 7C being within less than 100 meters of the river Tas tributaries with water courses flowing towards and into the Tas, as well as CRC 4 and 11 close by and CRC 6 and 7 crossing the Tas to join SIte 7 to Site 6 and 5B respectively , the risk to white clawed crayfish has to be considered significant and cannot be mitigated against.

Current, though limited, research suggests that electromagnetic fields can affect the nervous system of crayfish, potentially altering behavioural responses. Further study is needed to understand the long-term, low-level effects of these fields on the survival, behaviour, and reproduction of the white-clawed crayfish, especially as they are considered a "globally endangered" species.

Chapter 18: Other Environmental Matters

Utilities

Site 7 has multiple utilities running along the boundary edges including at proposed access points, through the site, as well as overhead. These have not been assessed adequately by East Pye Solar.

For example, numerous water nodes line the verges throughout Saxlingham Nethergate and the pipes are very near the surface. The very narrow roads that have been proposed as part of the transport route will be used by extremely heavy goods vehicles. It will be impossible to steer clear of these, therefore damage is inevitable and can't be mitigated.

Water Environment

Water Framework Directive and water environment: the applicant has not proved no deterioration

Site 7 sits in a highly sensitive chalk-stream and chalk-aquifer catchment, with a high degree of hydrological connectivity directly to the Tas chalk stream. Impacts on private water supplies, private sewerage and hydrological connectivity have not been properly assessed.

Any watercourse crossing, ditch crossing, HDD, haul route, trenching, runoff change, compaction, sediment release or pollution pathway must be assessed against the requirement to prevent deterioration in waterbody status. The applicant has not shown that the construction and operation of Site 7 would avoid deterioration of the River Tas system or avoid impacts on priority chalk-stream ecology.

Where a scheme risks deterioration of a chalk stream and harm to protected aquatic species, the legal test is precautionary and evidence-led. On the present material, the applicant has not supplied the required evidence to pass that test.

Site 7 has a greater water sensitivity than many of the other East Pye sites because:

- It lies almost entirely within **Flood Zone 1** however the **Hempnall Beck, a tributary of the River Tas** forms the southern boundary of sub-site 7B and is less than a few hundred metres from sub-site 7A ;
- There are **ordinary watercourses** crossing several sub-sites (7C, 7D, 7E, 7F, 7K and 7L) meaning construction will need to avoid pollution and maintain drainage connectivity;
- Most of Site 7 is within a **Source Protection Zone (SPZ)III (Total Catchment)**, and a small part of Sub-Site 7H falls within a **Drinking Water Safeguard Zone** for surface water. This

means extra care is required to protect groundwater and drinking water resources as any pollutants introduced here could eventually reach groundwater abstraction points used for drinking water. (Environmental Statement, vol 3, Appendix 2.1 - EIA Scoping Report March 2026);

The East Pye Solar Project poses a significant and unacceptable risk to water pipes and general water infrastructure through:

- Ground pressure and pipe damage;
- Tranching and accidental strikes;
- Soil contamination and hydrological change;
- Pollution and sediment infiltration;
- Long term operational disturbance;
- Cumulative development pressures - Site 7 is made up of 12 sub-sites and a total of 808 acres;
- Flooding;
- Pollution to private water supplies;
- Pollution to natural water environments.

These risks conflict with **NPPF** regarding consideration of water in planning decisions:

- **Flood Risk (Core Focus)** -
    - Some areas are within Flood Zone 2 and 3 in sub-site 7B and along Cable Route Corridor 7 at the Hempnall Beck and Tas Valley;
    - Runoff will increase surface water and risk of flooding in an area already susceptible to flooding;
    - As Site 7 mainly slopes towards the Tas Valley, this puts additional pressure and risk to homes in the valley and pollution in the river Tas tributaries which is the home to White Clawed Crayfish.
- **Sustainable Drainage Systems**
    - To manage surface runoff;
    - Mimic natural drainage;
    - Provide environmental and biodiversity benefits not to pollute the natural ponds and waterways already on the sub-sites across 7;
- **Water Quality**
    - Prevent development from polluting rivers - **river Tas**, lakes, ponds and groundwater;
    - Prevent pollution of private water supplies which East Pye Solar has failed to survey;
- **Natural Environment and Catchments**
    - Planning should support protection and enhancements of water-related ecosystems - **river Tas and tributaries**

The Environment Agency noted during scoping that:

- **Some small ordinary watercourses do not have mapped Flood Zones, so relying solely on Flood Zone maps could underestimate local flood risk;**
- **The Flood Risk Assessment should therefore consider these unmapped watercourses and use the latest surface water flood data.**

Sewage

A notable issue at Site 7 is the presence of **Anglian Water Infrastructure.**

The Environmental Statement record that:

- **Pressurised rising mains (sewers)** cross Cable Route Corridor 7 (CRC7) which runs between sub-site 7B and 5B including crossing the Hempnall Beck, a tributary of the River Tas;
- **Anglian Water requested that these assets be recognised because accidental damage during construction could release sewage**;
- The developer's response was that the rising mains are maintained by Anglian Water and are not regarded as existing contamination sources, but they will still need protection during construction; (Environmental Statement Vol 1; Chapter 16 - Ground Conditions March 2026)
- **Anglian Water flagged multiple concerns within their Relevant Response including lack of contact and consultation**.

This means that construction activities such as piling, trenching or cabling installation will require:

- Accurate utility location;
- protective easements around sewer assets;
- agreed working methods with Anglian Water.

Water Supply

The assessment identifies **private water supplies near sub-site 7A, 7B and 7C.**

These are considered likely to abstract from deeper Chalk or Crag aquifers rather than shallow deposits. Protecting these supplies is vital during construction to avoid contamination.

One local resident that will be surrounded by proposed infrastructure on sub-site 7A and 7C, stated on his Relevant Representation that their water is from a bore hole and is very concerned about contamination to his water supply.

Conclusion

The most significant issue at Site 7 is not increased sewage but protecting existing Anglian Water sewer infrastructure and nearby water resources during construction

The lack of communication from East Pye Solar with Anglian Water and the Environment Agency leaves many issues unresolved and can not be mitigated against. This is a major **FLAW**.

High pressure gas main

Sub-Site 7F is constrained by a **high-pressure gas main and additional gas infrastructure** running beneath it, creating unacceptable construction, safety and operational risk.

The site is also subject to a haulage route which is planned be constructed and to run over the high-pressure gas main even though there are easement restrictions within the proximity of the pipeline.

The proximity of:

- deep excavations,
- piling,
- heavy plant,
- permanent concrete foundations,

creates unacceptable **safety, engineering and liability risks**. The coexistence of a 132kV substation, solar infrastructure and high-pressure gas infrastructure in this constrained location represents a **fundamental deliverability failure**.

Note that the pipeline runs very close to the proposed Substation in field 7F. The Pipeline in question runs from Bacton in North Norfolk to the Midlands. The pipe has a diameter of 914mm, is made of steel and buried approximately 900mm below field level. There is an easement strip either side of the Pipeline – 12.2 m wide easement (6.1m either side of the pipeline centre) Note: The following comments are made by United Kingdom Onshore Pipeline Operators Association (UKOPA) in relation to solar farms near buried Pipelines

1. It is essential to recognise the potential risks with co-locating PV installations and buried high pressure gas pipelines.

2. Solar farms act as a source of short and long term direct current (DC) leakage and should be located as far as possible from buried pipeplines.

3. Any developments within 500m of a pipeline should be reviewed to ensure elements such as pipeline access roads, cathodic protection (CP) system groundbeds and AC mitigation measures have been considered. If a CP system groundbed is located within or in close proximity to a PV farm then the groundbed location may need to be relocated which could take time and involve

considerable expensive to the developer, as a new power source may need to be installed, a new groundbed site selected and land purchased.

4. Increase in the AC interference risk to the pipeline may result in AC corrosion on the pipeline.

5. Increase in the lightening risk on buried pipelines from the construction of the PV farm.



High Pressure gas mains pipe at proposed site 7F entrance on Saxlinham Green (grid ref TM2473 9646)

From the Relevant Representation on behalf of National Gas Transmission PLC "*unfortunately the Applicant has not attempted to liaise with NGT on the protected provisions required and as such no progress has been made despite NGT's attempts to enter into discussions dating back to August 2025. NGT is disappointed that appropriate priority does not appear to have been given to the protection of its assets in connection with the Project.*

Until NGT is satisfied that adequate protections have been secured…. ***NGT must object to the Order."***

Conclusion

The high-pressure gas main crosses land parcel 7F and passes close to the proposed substation, creating a fire and explosion safety concern.

This is not peripheral utility issues. A high-pressure gas main close to electrical infrastructure, construction compounds, cabling, fencing and access works is a major constraint.

The applicant has not demonstrated that Site 7 can be constructed and operated safely around these constraints. A DCO should not authorise development over or near such infrastructure on the basis of later discovery and later agreement.

Glass Fibre Broadband

Rural fibre-optic broadband infrastructure is situated within Land Parcel 7; the applicant has not mapped it, consulted operators or users, or assessed diversion, protection or outage risk.

Rural broadband is essential infrastructure for homes, farms and businesses. Damage or diversion could cause significant community and business harm and may materially affect construction feasibility.

Anecdotally, during the construction of the Long Stratton by-pass, the main fibre connection was cut in accident and knocked out services to multiple homes for over two weeks whilst it was repaired.

Additionally, in another section, fibre connection was lost to rural properties east of the by-pass for over four weeks whilst it was identified and repaired.

With mobile phone signal limited in rural areas, and with many blackout zones, WI-FI calling is essential for homes to maintain connection.

Potential Effects on Fibre Infrastructure

While East Pye Solar will not interfere with the signal it presents physical risks to these specific areas:

- Cable Route Corridor (CRC) Crossings: There are seven CRC linking to or through Site 7. There is risk of accidental cable strike on existing buried fibre due to lack of mapping;
- Construction Traffic and Roadworks: Heavy vehicle access to Site 7 will require road widening or temporary access points. Excavation at these points can damage microducts - the thin plastic tubes housing fibre cables - which are often buried at shallower depths than older copper lines;
- Wayleave and Access Issues: large-scale infrastructure on Site 7 could potentially complicate future maintenance access for broadband providers if their existing lines pass through land now designated for a 60 years Solar Scheme Broadland and South Norfolk

Satellite Connection

With limited Broadband connectivity, rural communities rely on satellite services like Starlink. Many mobile phone providers are now abandoning new masts due to long planning constraints and offering back up services via Satellite.

The Scheme includes extensive power conversion equipment, BESS installations and multiple high-voltage substations. The Environmental Statement should clarify whether electromagnetic emissions have been assessed for compatibility with modern satellite Broadband services operating in Ku- nad Ka-band frequencies, including user terminals located within the nearby rural properties, together with any proposed monitoring and complaint resolution procedures should interference be reported during operation.

Mobile Phone Signal

Large scale solar can affect mobile phone signal. As rural phone signals are limited compared to towns and cities, any detrimental effect can be significant.

Solar Panel can:

- Reflect or scatter radio signals (including 4g and 5g);
- Create 'shadowing' effects behind large arrays;
- Slightly weaken signal strength at ground level within or immediately behind a site.

As the panels are 4.5m high and tracking, the cumulative impact of the scheme across the whole area, often near to homes and PRoW, signals could be weakened and the effect significant in places where signal is an issue already.

Inverters and electrical equipment:

Solar fields include inverters and transformers which can emit electromagnetic interference if poorly shielded.

Although the risk is low impact it relies in developers to be compliant with regulations and evidence is based in small solar arrays not mega developments. This has not been assessed.

Blocking Line-of-Sight

Mobile phone signals rely partly on line-of-sight to masts, especially for 4g/5g.

A solar development could effect this if it:

- Sites between a user and a nearby mast;
- Includes ancillary structures (substations on 7F, security fencing, CCTV poles).

East Pye Solar has multiple substations including a 132kV on sub-sites 7F, 4B and a 400kV on Sub-site 5B.

In addition to this, the arrays are tracking panels that move, will be surrounded by fencing and CCTV. Rural signals can already be intermittent and weak without additional interference. A recent outage to multiple masts serving multiple providers in a 10km radius and lasted 9 weeks after changes were made to service.

The cumulative effect of this development could cause mobile phone signal issues across the area which has not been accessed. by East Pye Solar.

18.2 Major Accidents and Disasters

For **East Pye Solar Site 7** (the group of sub-sites around **Hempnall, Tasburgh, Saxlingham Nethergate and Woodton**), the main **Major Accident and Disaster (MAD)** concerns identified in the planning application are not the solar panels themselves, but nearby hazardous infrastructure and construction risks.

The Environmental Statement and consultation documents identify the following:

1. **Major Accident Hazard Pipeline (MAHP)**
    - Site 7 lies within the consultation zone of a **National Gas high-pressure transmission pipeline**;
    - The principal concern is accidental damage during construction, particularly excavation for cables, access roads and foundations;
    - A pipeline rupture could result in fire, explosion and significant risk to workers and nearby receptors. Because of this, National Gas must be consulted and protective easements and safe working methods are required.
2. **Major Accident Hazard Site (COMAH establishment)**
    - The Health and Safety Executive advised that the application falls within the consultation zone of:
        - **Gas Power Services Ltd., Harveys Lane, Seething (HSE Site Reference H3561)**.
    - This means HSE considers Site 7 sufficiently close to a regulated hazardous installation that land-use planning controls apply;
    - The developer states that consultation with HSE has been undertaken and buffers incorporated into the design.
3. **Electrical infrastructure**

    Site 7 includes proposed:
    - a **132 kV project substation** (Sub-site 7F)
    - Seven different underground cable routes connecting different Sub-Sites on 7 to each other as well as to other Sites of the Scheme;

    Potential accident scenarios include:

    - transformer fires;

- electrical faults;
- arc flash;
- oil leaks;
- construction accidents involving high-voltage equipment. These are treated as standard industrial hazards with mitigation through design and operational controls.

4. **Construction traffic**
   During construction there is potential for:
   - HGV collisions;
   - conflicts with local roads;
   - abnormal load deliveries;
   - interaction with agricultural traffic.
     These are managed through Construction Traffic Management Plans rather than being regarded as significant major accident risks.
5. **Fire risk**
   Fire scenarios considered include:
   - transformer fires;
   - electrical equipment fires;
   - vegetation fires around solar arrays;
     The Environmental Statement concludes these can be controlled through design, maintenance and emergency planning.

The developer's Environmental Statement concludes that:

No significant major accident or disaster effects are likely to arise, provided the embedded mitigation measures are implemented. Those measures include consultation with National Gas, protection of utility assets, construction management plans, emergency procedures and maintaining appropriate separation distances.

But, it is worth noting that the Developer has not engaged with National Gas Transmission PLC. From the Relevant Representation on behalf of National Gas Transmission PLC "*unfortunately the Applicant has not attempted to liaise with NGT on the protected provisions required and as such no progress has been made despite NGT's attempts to enter into discussions dating back to August 2025. NGT is disappointed that appropriate priority does not appear to have been given to the protection of its assets in connection with the Project.*

Until NGT is satisfied that adequate protections have been secured…. ***NGT must object to the Order."***

Conclusion

The main issues that should be given the greatest scrutiny are:

- **Proximity to the high-pressure National Gas transmission pipeline** (arguably the most significant external hazard).

- **Location within the consultation zone of the Gas Power Services COMAH site at Seething.**
- **High-voltage substations proposed within Site 7.**
- **Construction-phase excavation near buried utilities and associated HGV movements.**

18.3 Glint and Glare

Introduction

Glint and Glare refers to the reflection of light bouncing off the solar arrays as the sun hits them at a specific angle.

With the cumulative effect of the arrays, which will be visible across the area from most places, this could be significant in particular when the topography of the landscape is relatively flat with slight undulation like it is in this part of South Norfolk.

Sites near roads and homes will have greater impact.

Effects (Glint & Glare) Air Fields

Site 7 sits within the radius of many busy local airfields within a short distance, including Hardwick Airfield at 4 miles, Tibbenham Airstrip at 6.5 miles, Seething Airfield at 6.5 miles and Old Buckenham Aerodrome (which hosts a large annual air show with the Red Arrows in regular attendance) at 10 miles.

There is also a small private airfield on the western boundary of Long Stratton that acts often as a personal, farm-based airstrip used for light aircraft, with occasional helicopter activity.

Site 7 sits under the approach path for Norwich International Airport with numerous large passenger flights seen daily above.

The East Anglia Air Ambulance is regularly seen flying to and from Norfolk and Norwich University Hospital.

The air space above Site 7, and in fact in the skies above the rest of the East Pye Solar proposal, is used on an almost daily basis by the Royal Air Force and the American Air Force for training including jets and very low flying large aircraft. It is commonplace to have ‘dog fights’ above the villages of Long Stratton and Stratton St Michael and the ‘glint’ and ‘glare’ caused by the reflection of the sun on the solar panels, could cause serious safety issues especially in the cumulative impact of the scheme.

Well documented research highlights the vulnerability of aviation to ‘glint’ and ‘glare’ as they can cause temporary visual impairment for pilots, with the risks being more acute during low-altitude flights segments such as approach and departure, when pilots must maintain precise visual

awareness. This is clearly a major issue in this part of South Norfolk with the amount of small airfields in close proximity.

It is strongly felt that a robust Glint and Glare Assessment is completed covering the following: -

1. Solar Position Modelling: Annual and diurnal sun paths to determine potential reflection windows.

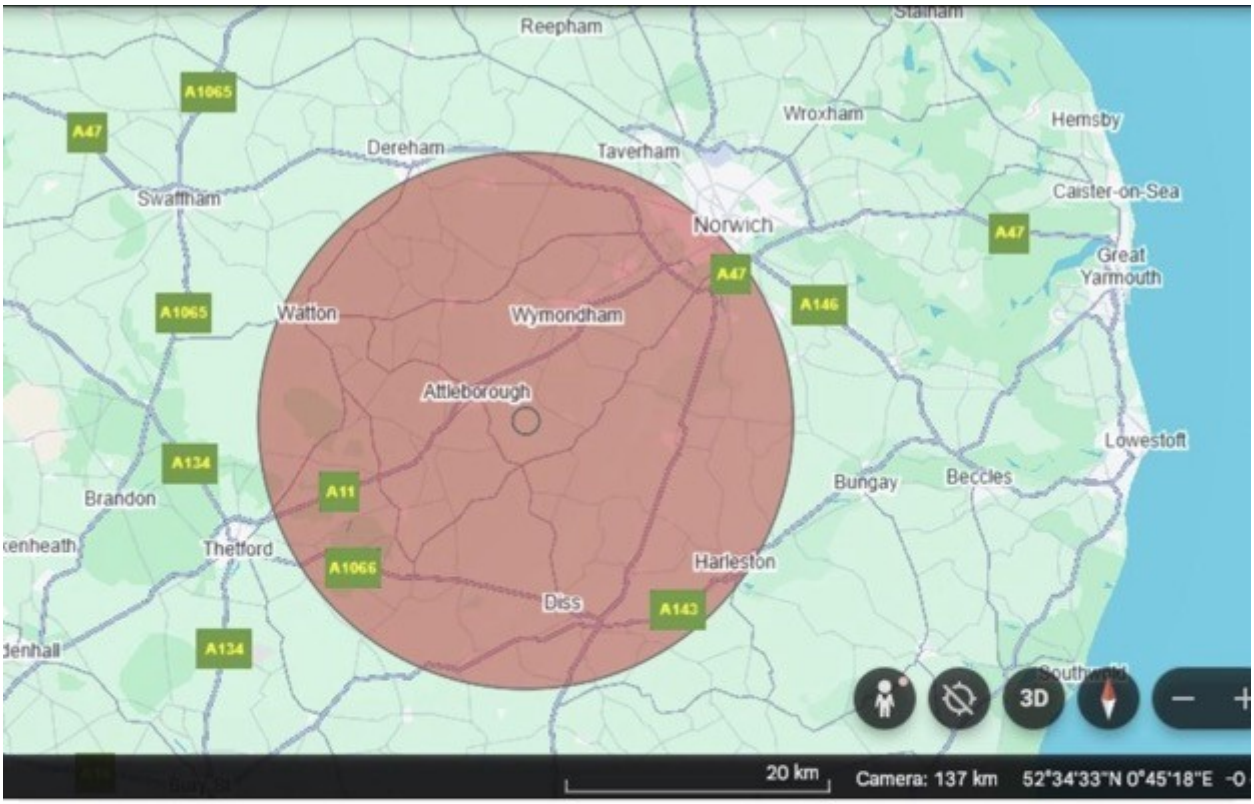
2. Receptor Mapping: Identification of all sensitive aviation receptors.

3. Geometric Visibility Analysis: Determining whether reflected rays intersect pilot sightlines.

4. Intensity Estimation: Assessing whether reflections exceed daylight luminance levels likely to cause discomfort or disability glare.

5. Duration and Timing: Identifying when and how long glint or glare would be experienced during operational periods.

6. Cumulative Impact: Where applicable, assessing multiple solar PV developments in the same airspace.



Data source is https://www.data.gov.uk/dataset/1bd380ca-95d4-4ebe-b04d-501a640302c1/raf-old-buckenham-safeguard-zone

Roads

- Road Receptors – Glint and glare may reduce a driver's vision of the road if reflections occur, even fleetingly or simply distract the driver, as is happening on the A140 at Mulbarton with Bloys Grove, 3.5km north of Site 7, as the eye is drawn away from the road with the peripheral vision picking up the glint off the panels.
- This could negatively impact the safety of nearby roads and is typically assessed within 1km of a solar development. (PagerPower).



Bloys Grove, Mulbarton (whilst still in construction), and taken at approx 5.40pm in March from a moving car with glimpses of sun through light cloud from a A140 over 1 km away.

Site 7 can be extensively seen from the A140 which is slightly elevated. With tracking panels across Site 7 sitting east to west, the panels will be facing the A140 for the latter part of the day and facing the Broaden Lane, Wash Lane and the main route of B1332 to the east.

The developer's glint and glare assessment found that there were significant adverse effects yet concluded that after mitigation screening the effects would be minimal. However mitigation itself changes the overall character of the landscape.

Homes

The receptors were residents of nearby farms and houses, users of local roads surrounding the site parcels, users of local footpaths crossing or adjacent to the site. But the cumulative effect of Site 7 will have a greater significant impact especially as mitigation will not come to fruition for decades.

What the developer failed to do was consider glint and glare from upstairs windows.

- Dwelling Receptors – Extended periods of glare towards living spaces within a home may cause a nuisance for residents and could negatively impact residential amenity. Terrain heights are important to consider, as dwellings are typically assessed within 1km of a solar development (PagerPower).

Saxlingham Nethergate - At least a dozen house are less than 200 metres from the proposed solar fields, all them will have a clear view, and East Pye Solar has not given any consideration of Glint and Glare to properties from an upstairs window and therefore impossible to ignore the glint and glare.

Site 7 has slight undulation with Sub-plot 7A being closest to Tasburgh and the A140. It slopes north-east to south-west with East Pye Solar planning 4.5m panels tracking the sun east to west. This field, as well as others, will not only be visible to properties and road users on the A140 Norwich Road but will be susceptible to glint and glare. As this field is elevated at the east boundary the glint and glare will be visible from residential homes and businesses all along the Tasburgh area of the A140 including from the Countryman Pub and garden.


Taken from the Countryman Pub, A140
facing East
7A


Stood on Fairstead Lane at the
south west boundary of 7A looking
towards the A140
The Countryman Pub
Text


Photo taken Fairstead Lane, SW boundary of 7A looking NE. Site elevates towards NE of plot where visible tree line is reduced due to elevation.

Chapter 19: Cumulative and In-Combination Effects

East Anglia energy usage is one of the dirtiest in the UK yet is a major producer already of renewable energy.

East Anglia is already achieving and exceeding regional targets for renewable energy, as acknowledged by East Pye Solar, however East Anglia is not benefiting.

The region is already a **manufacturing energy plant for other regions whilst the regional consumption is 'dirty' energy.**

The local Grid is almost at capacity with no plans for being updated.

The NESO app shows that the East England region has its main source of energy as solar during main daylight hours.

But **the carbon intensity is one of the highest in the country.** In fact **East England is generally 13th out of 14** regions with only South Wales showing as consistently worse and their production is mainly gas! Even London is significantly better yet is mainly 'imports' and gas.

Even with the vast amount of off-shore wind visible from the beaches all along the Norfolk coastline, there is almost no local impact as the East England wind percentage is negligible unless the wind is blowing. Wind then offers low carbon intensity and is effective during nighttime hours too (when it's blowing).

Regional carbon intensity in the NESO app is not determined only by the percentage of renewables generated within that region. It is based on the **electricity actually being consumed** in that region at that moment, including power flowing across transmission boundaries and from interconnectors.

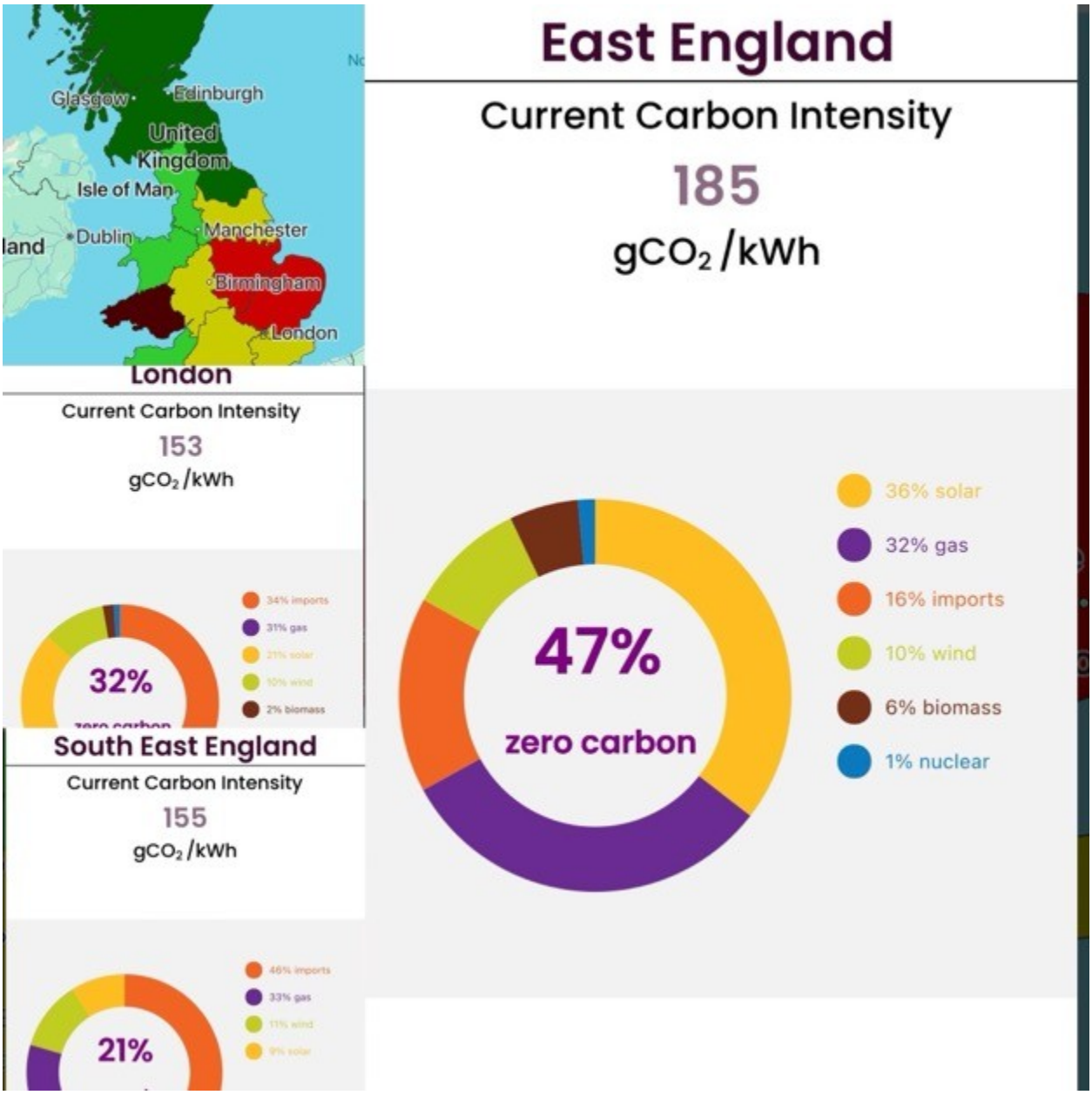
For example, East England solar was at 48% at 2.45pm on a sunny June afternoon, the East England was importing 25% of its electricity but imports aren't necessarily low carbon.

The electricity could be generated by:

- gas stations elsewhere in Britain;
- imports arriving through interconnectors from continental Europe;
- power from regions with higher fossil fuel generation.

So where is our solar renewable production going?

Solar output does not displace gas locally and considering the above snap shot, East Anglia was producing a lot of solar power. However, this region is also a major transmission corridor carrying power southwards towards London and the South East which would explain why their carbon intensity is always much lower and their biggest supply is 'Imports'.



This is from NESO app at 4pm 1st July 2026

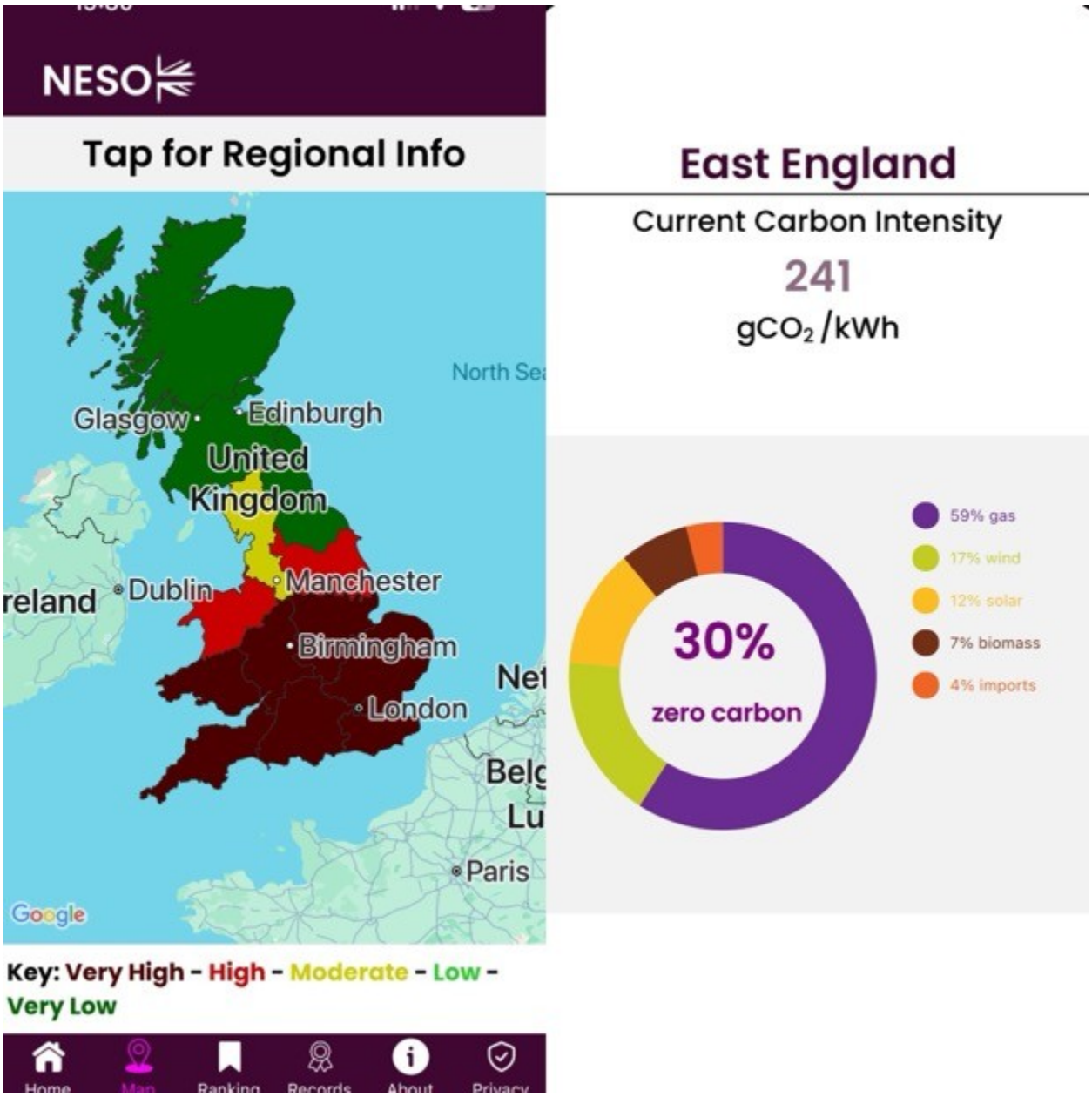
The solar generated in East Anglia does not generally stay there as the grid cannot cope with the fluctuations so it will have been **exported** to neighbouring regions. Meanwhile, electricity flowing **into** the region from elsewhere could have a **higher carbon content.**

Carbon intensity is heavily influenced by marginal generation in the UK grid and therefore will reflect the marginal generator that is adjusting the output to balance supply and demand. That will be gas.

If the East England demand input were met by gas elsewhere on the system, the regional carbon intensity will remain relatively high despite the abundant local solar generation.

If generation in East Anglia grows faster than transmission capacity or demand, the increase in the amount of solar output via East Pye Solar (as well as other projects across the region) will be constrained or curtailed during sunny periods.

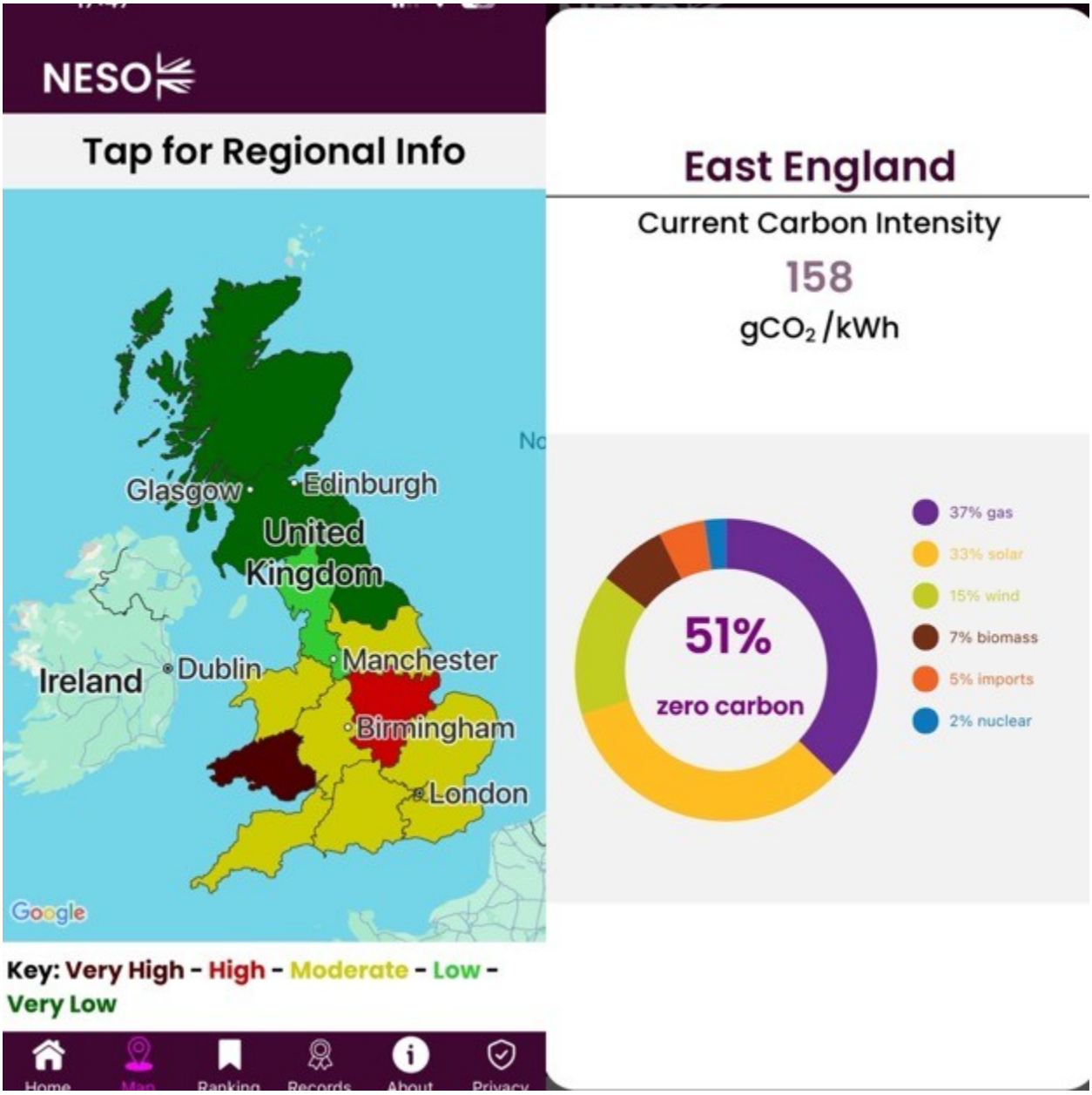
On 30th June the southern UK was mainly using gas even when the sun was shining.



NESO 30th June

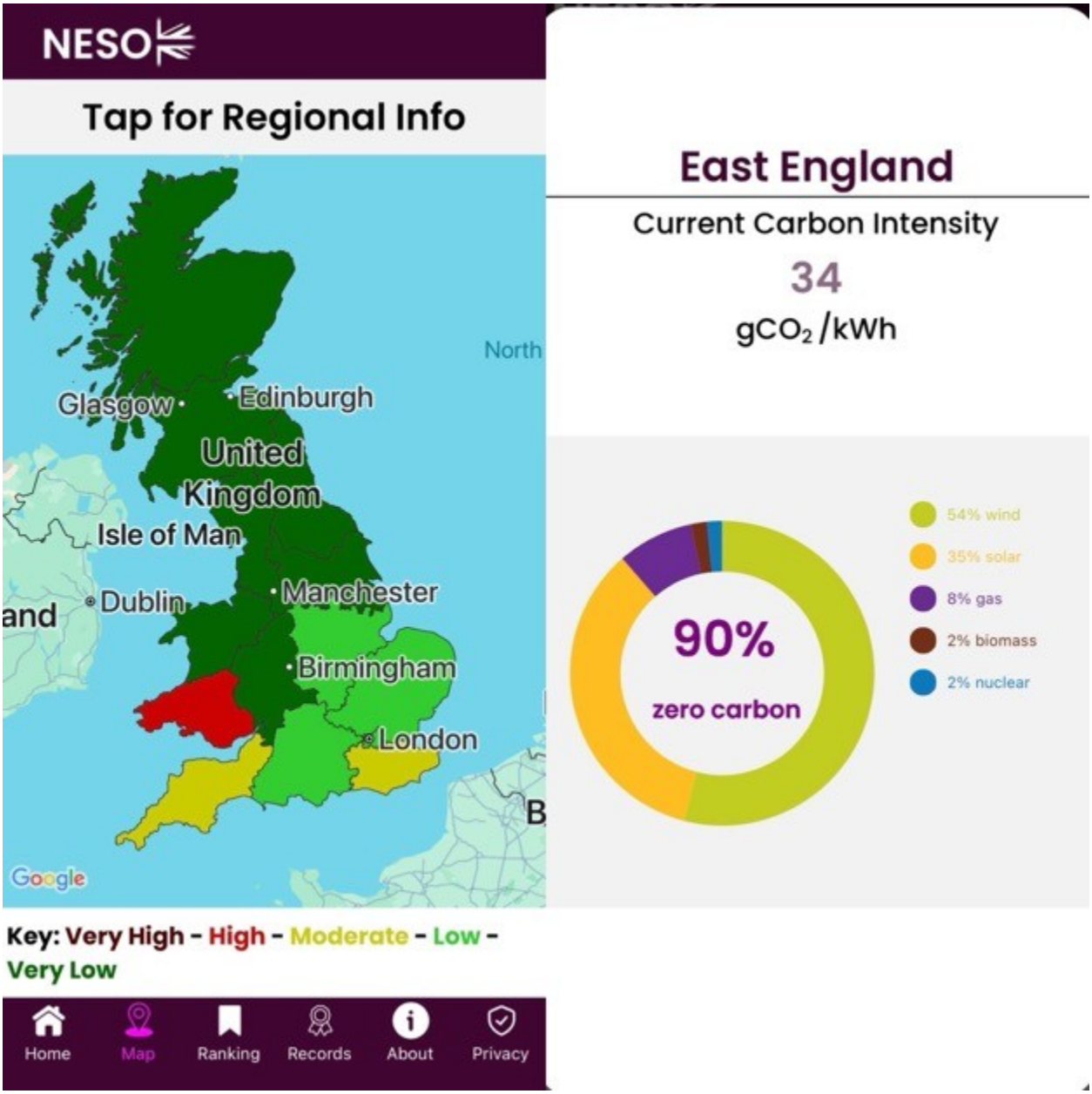
If solar is frequently curtailed because transmission lines are full, the carbon benefit per installed MW becomes lower than if the same project were built in an area with spare network capacity.

Interestingly, the lowest East England carbon intensity for nearly a week was at 5.30pm on 1st July when the main supply was gas.



NESO 1st July 5.30pm

However it's interesting to see the next morning, 2nd July, when East Anglia was very windy and what happens to the carbon intensity in the region. That's because our transmission system is designed to carry off shore wind and not solar.



East England, 2nd July 2026 10.35am

So the question is, is East Anglia the right place for another large solar factory or should the next best investment in East Anglia be grid reinforcement and further local offshore wind connections?

East Anglia is being proposed as a renewable energy park across the region with multiple Solar renewable NSIPs of similar size to East Pye Solar, like prospectors in the gold rush. The devastation this will bring will change this quiet, rural county, that is hugely agricultural, into an industrialised energy factory.

This will destroy the regional tourist industry, the county's largest economic sector bringing in £5.9 billion (including Suffolk) and supporting 54,000 jobs.

The sheer scale of this speculative project would transform this working rural environment into an industrial landscape.

81% of proposed parcels of land are designated BMV Grade 1-3a that have been farmed for hundreds of years and would continue to be so, if not used for renewable energy.

The area contains, and is surrounded by many important archeological sites, historical monuments, listed properties and historic places of worship as well as significant landscape character and protected wildlife habitats.

The destruction and fencing off of land will have a terrible and profound impact on all species of wildlife. Included in this are many protected species which can not be mitigated against.

The Cable Route Corridor will cause destruction and deprivation to many farming businesses through the 2 year construction phase, and beyond, as the soil will take years to recover from bund storage.

The landowners involved in the acquisition of rights for cabling have received little consultation, structured information to make an informed decision, have been pressured, threatened and bullied to sign contracts even though plans for the cabling are not complete nor thorough. Additionally, East Pye Solar have not explored alternative routes to avoid farm land; the routes are dissecting fields diagonally or straight down the middle to incorporate the shortest or most convenient location to East Pye Solar, without considering impact to landowners involved as well as expanding the corridor width from 20m to 50m.

The negative impact to multiple landowners not voluntarily involved to benefit the private profit of 9 landowners and Island Green Power.

The Scheme is disconnected, not just from site to site, but from north to south.

The total of the scheme's cabling is 24 km but Cable Route Corridor 4 is 8km long, a third of that total. This demonstrates the disconnect of the southern 'cluster' Sites 1,2, and 3 as well as the

infrastructure of the BESS, Substations and National Grid transmission substation at Great Moulton, to the majority of energy producing Sites in the north.

The choice of location for this Scheme is landowner-led and 'the Scheme tries to reshape the landscape to suit the scheme and not create a scheme that fits the landscape' Norfolk Wildlife Trust.

That is not a good enough reason.

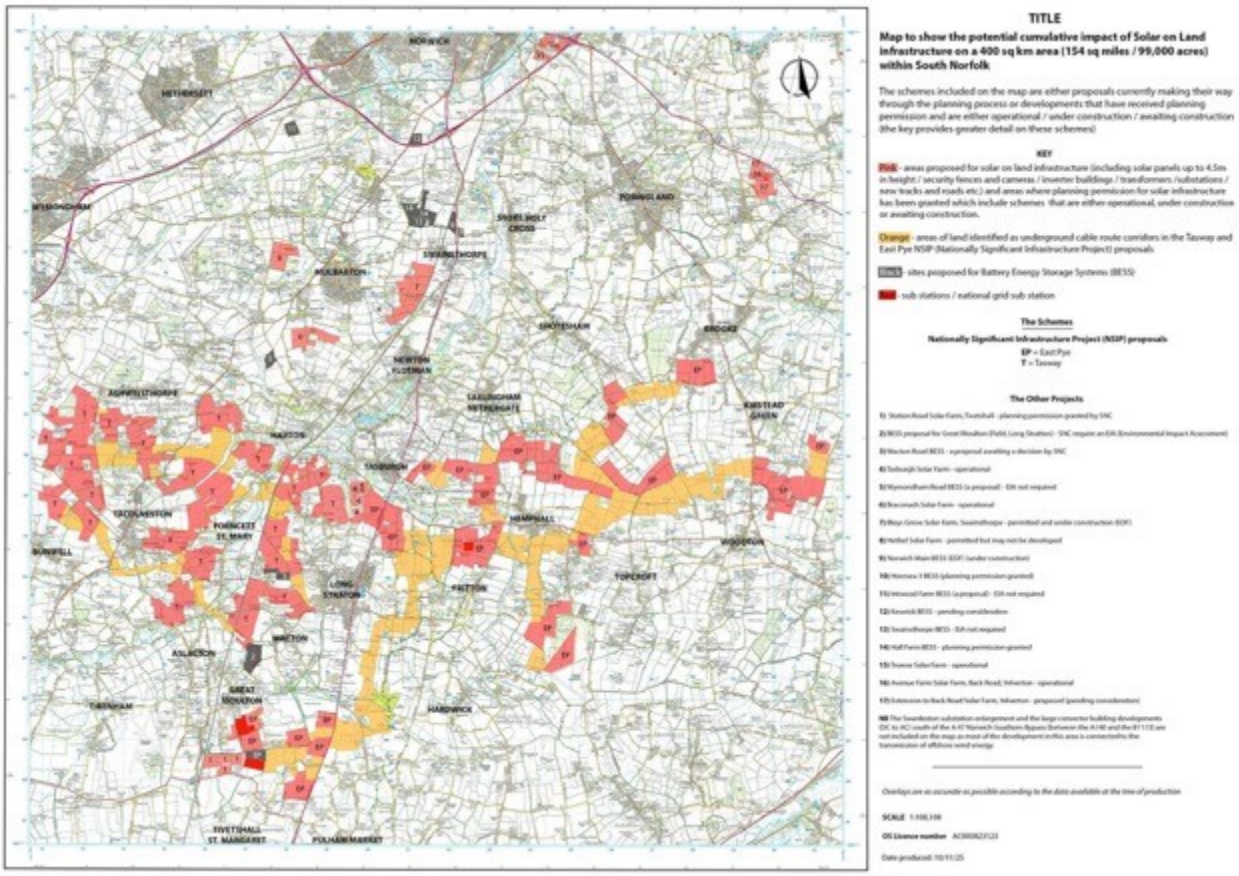
19.1 Other near-by developments (solar, housing, energy infrastructure)

Other industrial renewable energy projects either in construction, in planning or scoping.

- **Bloys Grove** (50MW) is 200 acres and located approximately 3km north of East Pye Solar in **Mulbarton** and is providing 15% Network Rail's annual non-traction electricity demand (stations, offices, depots and maintenance facilities rather than train traction power). Developed by EDF Renewables.
- **Stoke Road** is now in consultation to expand to another 200 acres on BMV 2 land also bordering the River Tas and within a Flood Zone 3
- Swainesthorpe BESS - EDF Renewables 114MW located between Dunstan and Swainesthorpe near Bloys Grove

- **Hall Farm Solar, Tasburgh** butts up to East Pye Solar, Plot 4A on the west boundary and is a 15MW solar infrastructure acquired by BlackRock from SPI China in 2016. It covers approximately 74 acres and was connected to the grid in 2015. It has a licence for 20 years.
- **Tasway Solar -** a 3200 acres proposal which is currently paused with a Gate 1 connection and waiting to see the outcome of East Pye Solar.

Tasway plans to use East Pye Solar infrastructure even though East Pye state their infrastructure is for themselves alone. Tasway will meet East Pye Solar to the east of Hall Farm Solar if consent is given. This will give a cumulative impact of in excess of 6000 acres of solar plus cabling across approx 65 square kilometres of South Norfolk, east to west. That is the same size as Greater London.



- **The Droves - NSIP** Island Green Power 500MW in Mid Norfolk and DCO with the PINS
- **High Grove Solar - NSIP** 500MW in planning
- **EcoPower Suffolk Solar - NSIP** 250MW, 2,200acres, consultation stage
- **Gissing solar project—NSIP** is currently in its early exploration stages and is expected to be the **largest solar farm in the UK** if it proceeds.
    - **Generation Capacity: 900 megawatts (MW)**
    - **Physical Acreage: 5,000 acres** (approximately 2,020 hectares).
    - **General Location:** land between **Long Stratton and Diss** in South Norfolk.
    - **Developers:** The project is being explored by **RPC (Renewable Power Capital)** and **Elmya Energy**.
- **Long Stratton Solar park** - **NSIP**, scoping across the region
- **Trowse Solar Farm 1** - (or Trowse Newton Solar Park). Developed by Island Green Power and operational since 2016, has a capacity of 5MW and covers an area of 117 acres. It's located on the Norwich Southern Bypass
- **Trowse 2** is 7MW and has been operational since 2022 as an extension to Trowse 1
- **Dunston Battery Store -** or the **Electric Land BESS**. **Capacity:** Originally planned for **130MW**, the project was upgraded in March 2025 to a potential **255MW** capacity due to technological advances.**Location:** A **5.1-acre** site on Stoke Lane, directly adjacent to the

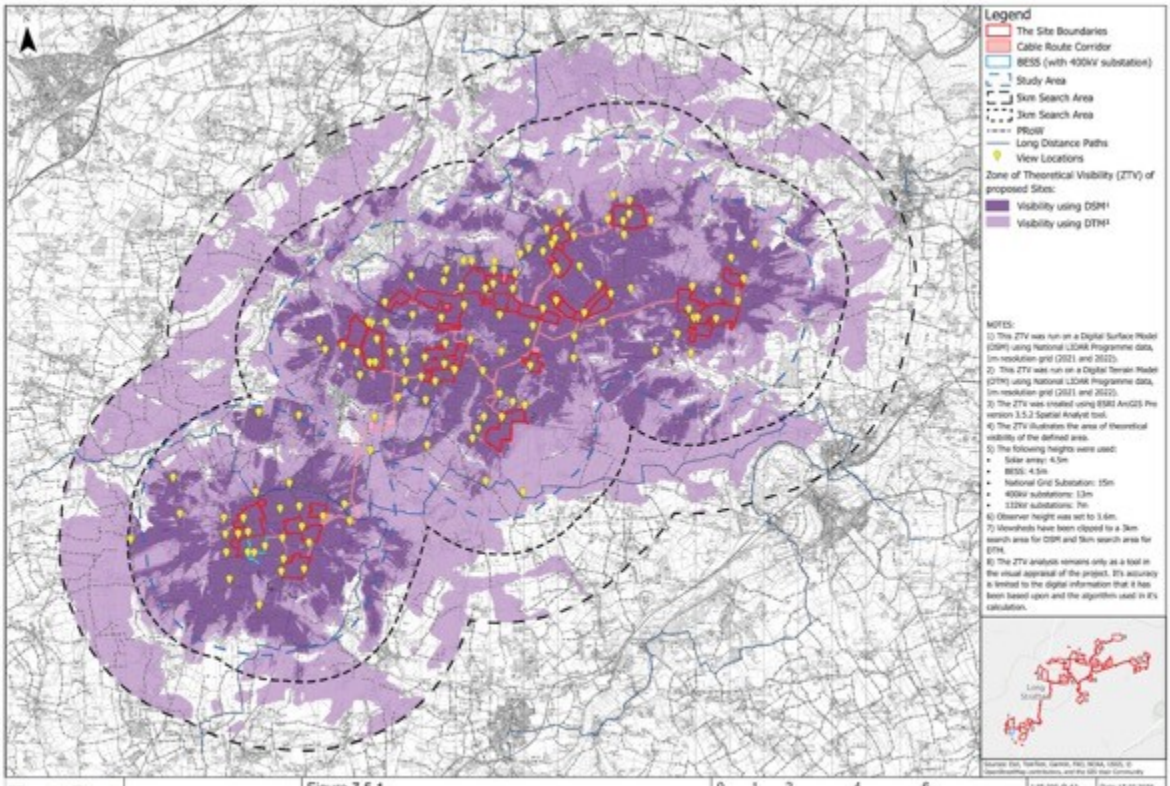
Dunston Hall hotel and golf club, just off the **A140** south of Norwich near Swainesthorpe BESS.

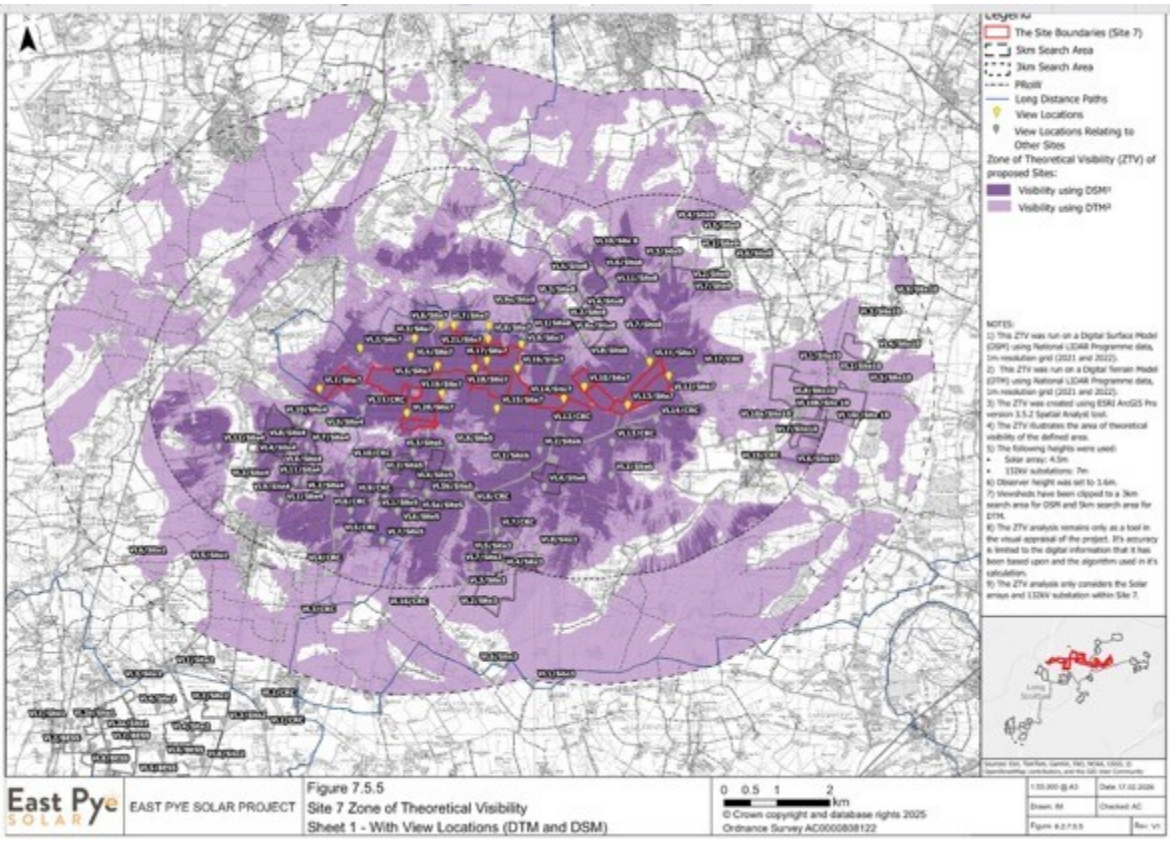
- **Dickleburgh, South Norfolk** - 49.9MW on 182 acres near Pulham Market, consultation stage
- **Long Stratton BESS, South Norfolk** - 700m west of Long Stratton, permission granted early 2026 but only has Gate 1 connection;
- **FIELD BESS** - South of Wacton, north of Great Moulton, in planning;
- **Bracon Ash, South Norfolk** - 28.5MW
- **Grange Farm Solar, Palgrave, Suffolk** - 30MW
- **Marsh Lane Solar, Palgrave, Suffolk** - 30MW, 123 acres

19.2 Cumulative impact on landscape and visual

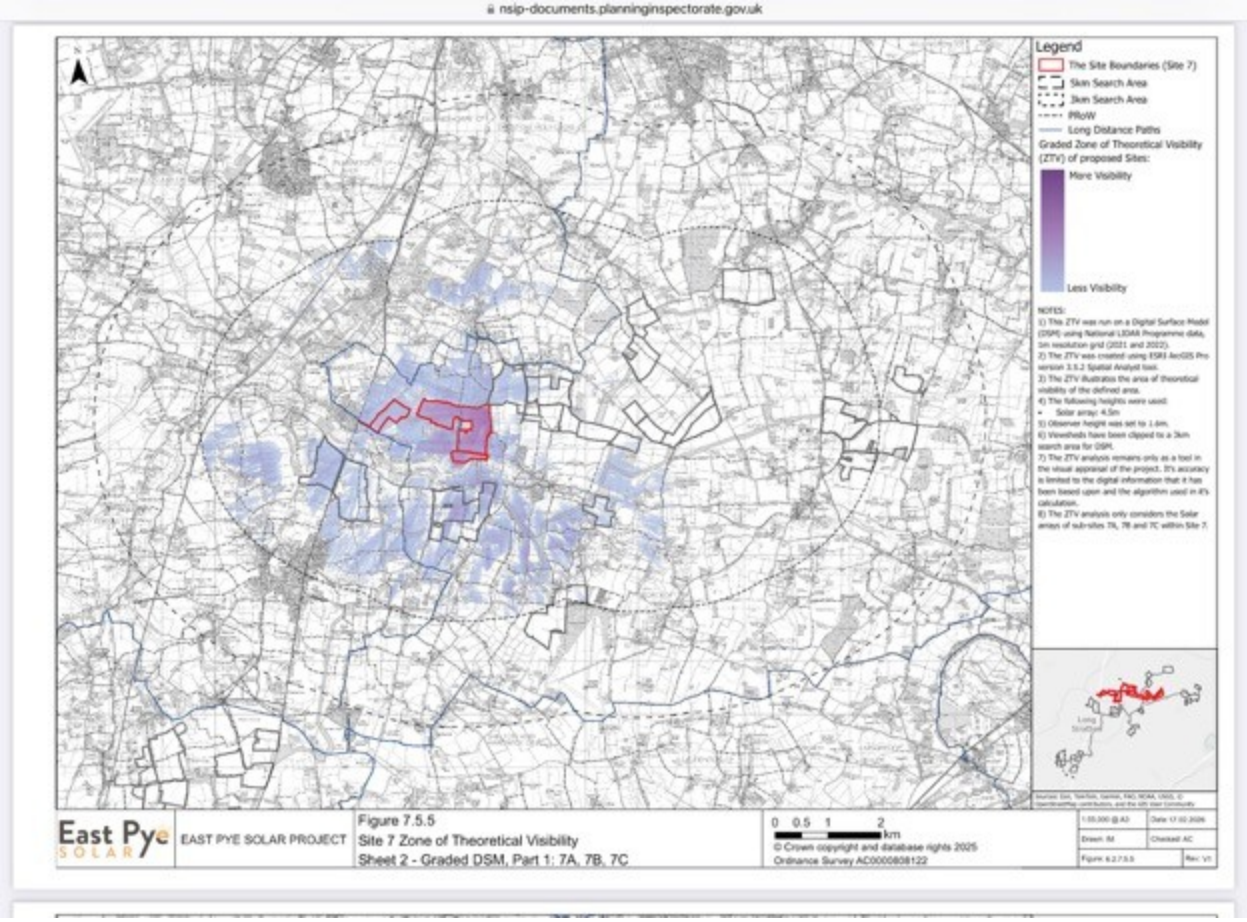
East Pye Solar's own diagrams show that the impact of the development on the surrounding landscape and the visibility is hugely detrimental not just to those in close proximity but to much further afield.

The maps only show up to 5km diameter however we know that it doesn't just stop there. For example Bloys Grove, Mulbarton can be clearly seen from a road over 3km to the east of the scheme so we know it would be still visible from at least 5km away with the landscape allowing.


Legend
The Site Boundaries
Cable Route Corridor
BESS (with 400kV substation)
Study Area
5km Search Area
3km Search Area
PRoW
Long Distance Paths
View Locations
Zone of Theoretical Visibility (ZTV) of proposed Sites:
Visibility using DSM¹
Visibility using DTM²
NOTES:
1) This ZTV was run on a Digital Surface Model (DSM) using National LiDAR Programme data, 1m resolution grid (2021 and 2022).
2) This ZTV was run on a Digital Terrain Model (DTM) using National LiDAR Programme data, 1m resolution grid (2021 and 2022).
3) The ZTV was created using ESRI ArcGIS Pro version 3.5.2 Spatial Analyst tool.
4) The ZTV illustrates the area of theoretical visibility of the defined area.
5) The following heights were used:
• Solar array: 4.5m
• BESS: 4.5m
• National Grid Substation: 15m
• 400kV substations: 13m
• 132kV substations: 7m
6) Observer height was set to 1.6m.
7) Viewsheds have been clipped to a 3km search area for OSPR and 5km search area for DTM.
8) The ZTV analysis remains only as a tool in the visual appraisal of the project. It's accuracy is limited to the digital information that it has been based upon and the algorithm used in it's calculation.
East Pye SOLAR
EAST PYE SOLAR PROJECT
Figure 7.5.1
Zone of Theoretical Visibility with View Locations
0 1 2 4 6 km
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The Site Boundaries (Site 7)
5km Search Area
3km Search Area
PRoW
Long Distance Paths
View Locations
View Locations Relating to Other Sites
Zone of Theoretical Visibility (ZTV) of proposed Sites:
Visibility using DSM¹
Visibility using DTM²
NOTES:
1) This ZTV was run on a Digital Surface Model (DSM) using National LiDAR Programme data, 1m resolution grid (2021 and 2022).
2) This ZTV was run on a Digital Terrain Model (DTM) using National LiDAR Programme data, 1m resolution grid (2021 and 2022).
3) The ZTV was created using ESRI ArcGIS Pro version 3.5.2 Spatial Analyst tool.
4) The ZTV illustrates the area of theoretical visibility of the defined area.
5) The following heights were used:
• Solar array: 4.5m
• 132kV substations: 7m
6) Observer height was set to 1.6m.
7) Viewsheds have been clipped to a 3km search area for OSPR and 5km search area for DTM.
8) The ZTV analysis remains only as a tool in the visual appraisal of the project. It's accuracy is limited to the digital information that it has been based upon and the algorithm used in it's calculation.
9) The ZTV analysis only considers the Solar areas and 132kV substation within Site 7.
East Pye SOLAR
EAST PYE SOLAR PROJECT
Figure 7.5.5
Site 7 Zone of Theoretical Visibility
Sheet 1 - With View Locations (DTM and DSM)
0 0.5 1 2 km
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Ordnance Survey AC0000808122

Site 7 is visibly detrimental for many miles due to elevated level.



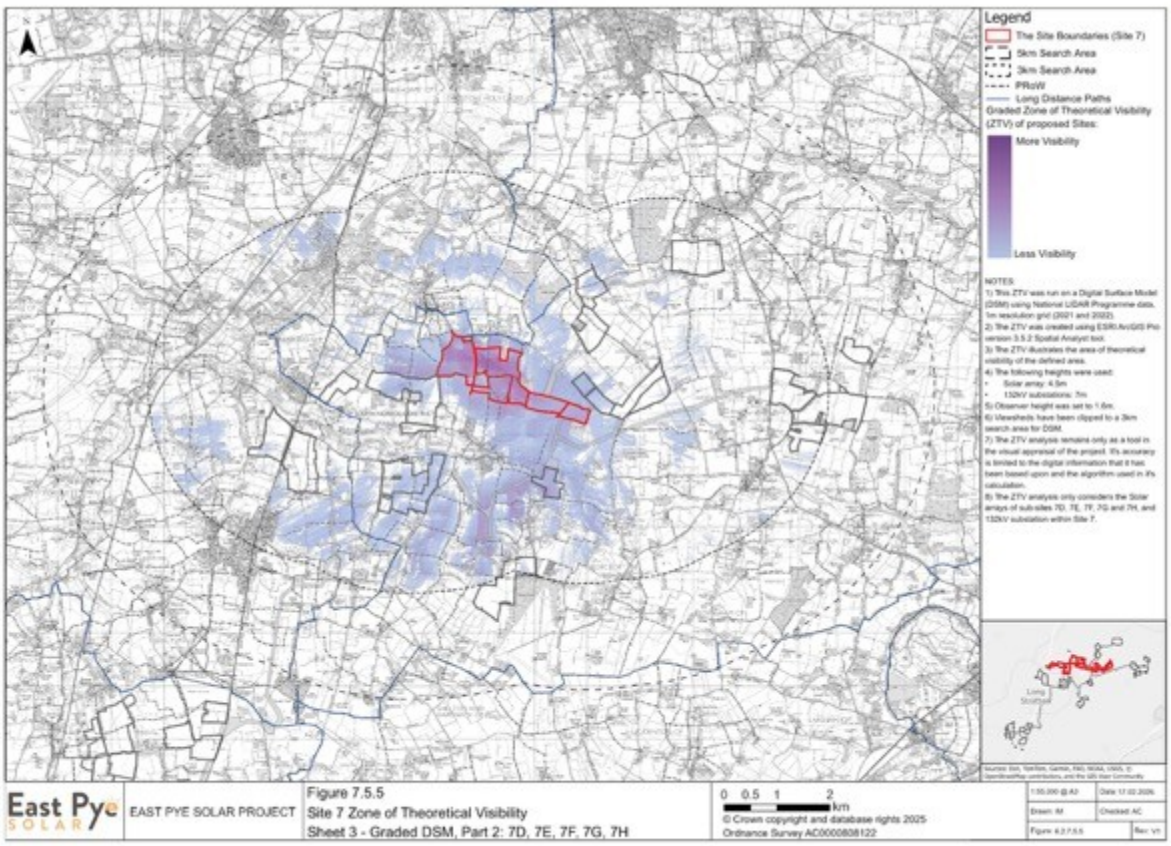
Site 7A, 7B and 7C shows how visible the sites will be especially Site 7C however visibility wasn't considered from the A140 or the homes along the A140 to the west of site 7 which will have a clear and significant view of site 7A and 7C.

Albeit the topography of the land may appear mainly flat, it actually undulates across Site 7 which is also elevated above the Tas valley, making it visually significant but would also make the scheme visible for miles across multiple sites.

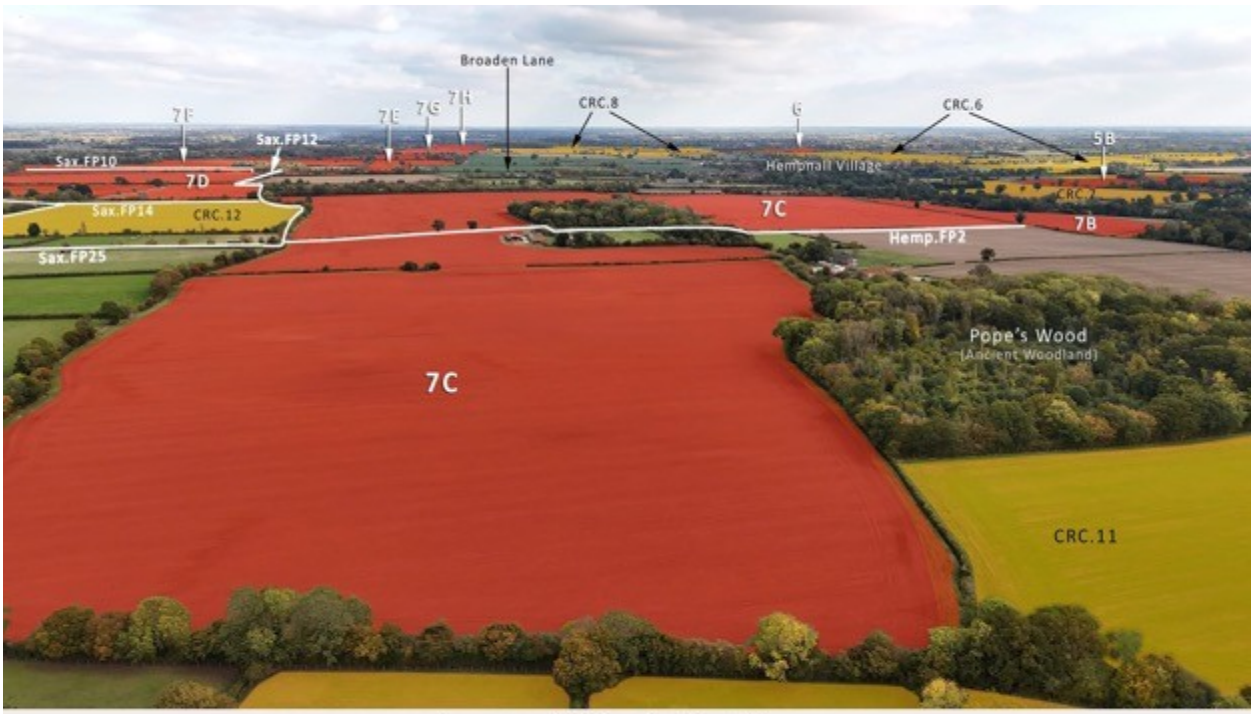
The natural tree lines can't mask the scheme as the panels will appear taller than most existing mature trees that are there and are sporadic. Whilst the screening will take decades to mature and will change the natural character and openness of the landscape.

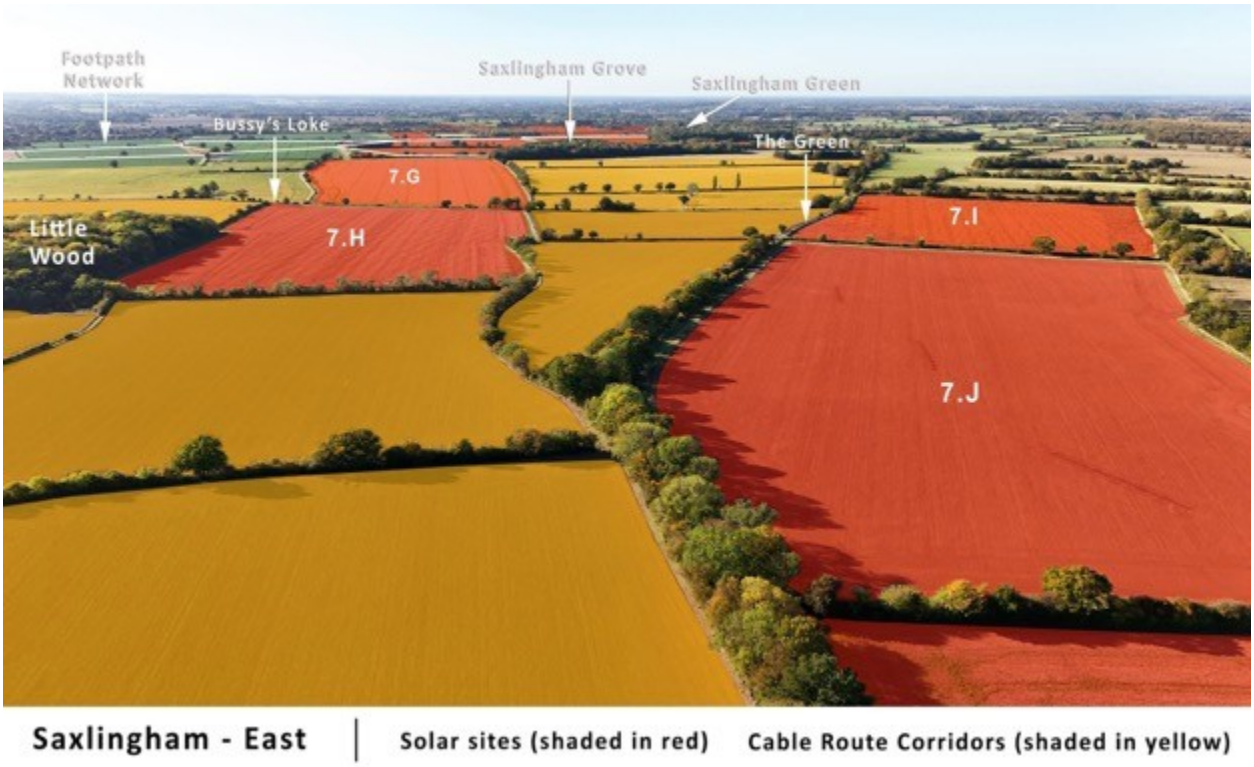

Taken from the Countryman Pub, A140
facing East
7A


View from the A140 looking East
7C


Legend
The Site Boundaries (Site 7)
5km Search Area
3km Search Area
PRoW
Long Distance Paths
Graded Zone of Theoretical Visibility (ZTV) of proposed Sites:
More Visibility
Less Visibility
NOTES:
1) This ZTV was run on a Digital Surface Model (DSM) using National LiDAR Programme data, 1m resolution grid (2021 and 2022).
2) The ZTV was created using ESRI ArcGIS Pro version 3.5.2 Spatial Analyst tool.
3) The ZTV illustrates the area of theoretical visibility of the defined area.
4) The following heights were used:
• Solar array: 4.5m
• 132kV substations: 7m
5) Observer height was set to 1.6m.
6) Viewsheds have been clipped to a 3km search area for DSM.
7) The ZTV analysis remains only as a tool in the visual appraisal of the project. It's accuracy is limited to the digital information that it has been based upon and the algorithm used in it's calculation.
8) The ZTV analysis only considers the Solar arrays of sub-sites 7D, 7E, 7F, 7G and 7H, and 132kV substation within Site 7.
East Pye
SOLAR
EAST PYE SOLAR PROJECT
Figure 7.5.5
Site 7 Zone of Theoretical Visibility
Sheet 3 - Graded DSM, Part 2: 7D, 7E, 7F, 7G, 7H
0 0.5 1 2
km
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Ordnance Survey AC0000808122


Legend
The Site Boundaries (Site 7)
5km Search Area
3km Search Area
PRoW
Long Distance Paths
Graded Zone of Theoretical Visibility (ZTV) of proposed Sites:
More Visibility
Less Visibility
NOTES:
1) This ZTV was run on a Digital Surface Model (DSM) using National LiDAR Programme data, 1m resolution grid (2021 and 2022).
2) The ZTV was created using ESRI ArcGIS Pro version 3.5.2 Spatial Analyst tool.
3) The ZTV illustrates the area of theoretical visibility of the defined area.
4) The following heights were used:
• Solar array: 4.5m
5) Observer height was set to 1.8m.
6) Viewsheds have been clipped to a 3km search area for DSM.
7) The ZTV analysis remains only as a tool in the visual appraisal of the project. It's accuracy is limited to the digital information that it has been based upon and the algorithm used in it's calculation.
8) The ZTV analysis only considers the Solar arrays of sub-sites 7I, 7J, 7K and 7L within Site 7.
East Pye SOLAR
EAST PYE SOLAR PROJECT
Figure 7.5.5
Site 7 Zone of Theoretical Visibility
Sheet 4 - Graded DSM, Part 3: 7I, 7J, 7K, 7L
0 0.5 1 2
km
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Cumulative impact of this land parcel with cable corridors

19.3 Cumulative impact on ecology

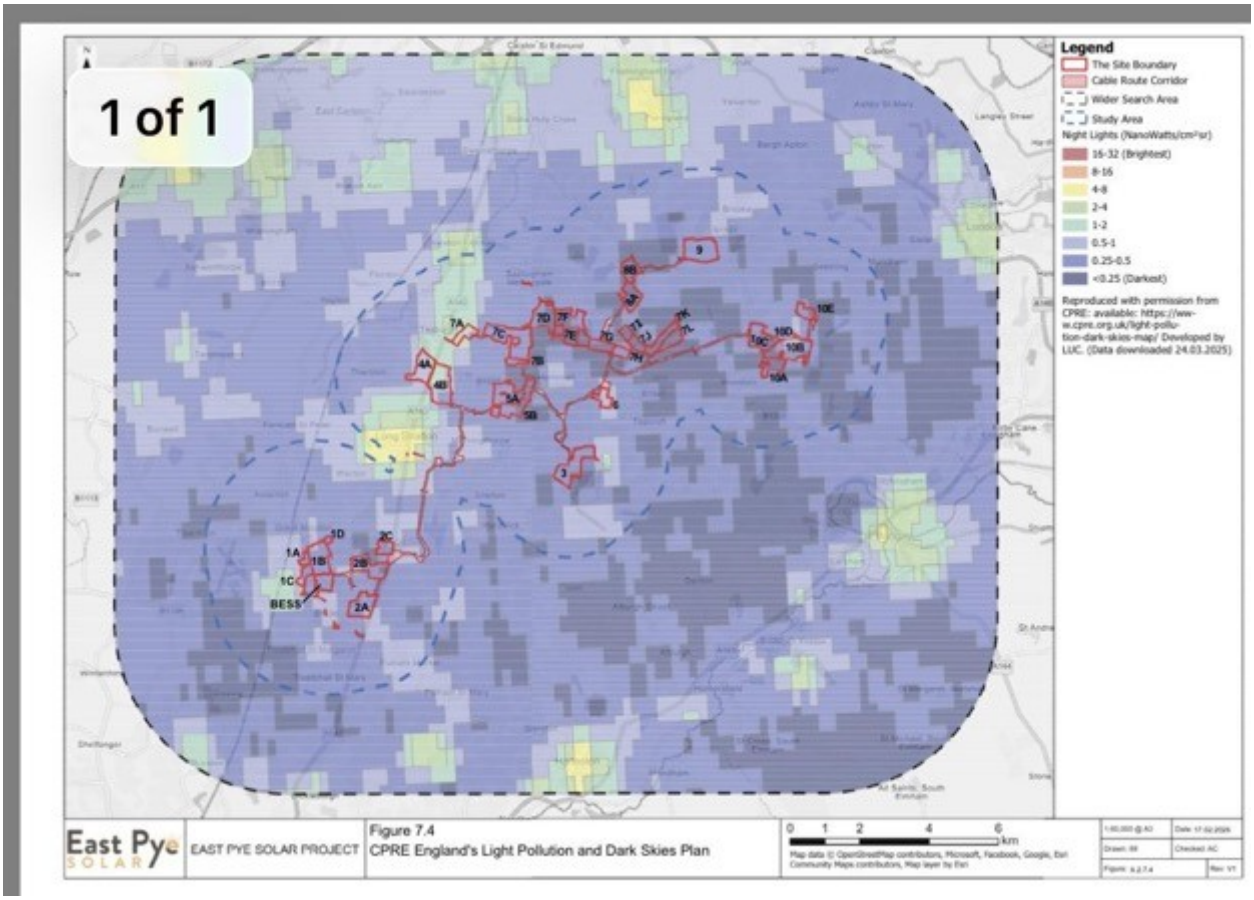
The current ecology surveys provided by East Pye Solar are not complete enough to allow full examination and further surveys are essential.

The information surrounding haul roads, compounds and road widening of narrow lanes is misleading in particular towards the impact on mature hedges and trees.

The cumulative impact of the Scheme represents a significant change to this landscape and its habitats by causing disruption and increasing fragmentation of Sites; none of which can be adequately mitigated for.

Lighting of compounds and construction sites, trenching works and increased vehicle movements, especially of heavy vehicles are of particular concern and spread across a wide swathe of the Claylands.

Lighting on compounds and for night working is in conflict with the need to protect this Dark Skies area. Dark Skies areas are shown to have a benefit for human health as well as wildlife.



The Claylands landscape is of high value for people and wildlife because it is a small-scale area of ancient countryside with pre-enclosure patterns of tall, old hedges, small wood and irregular fields.

East Pye Solar is out of scale with this initiate landscape and represents industrialisation of this very rural area. It is out of character and alien.

Redesigning the Claylands landscape, at scale, for solar industrialisation is not acceptable. A scheme should be designed to fit a landscape and bring a range of benefits for the people and wildlife that live in the area. It should not be to benefit private profit.

The South Norfolk Claylands has been the focus of nature conservation efforts specifically on the high occurrence of good quality habitat (ancient woodlands, open commons, mature hedges and trees) within the landscape.

This scheme carries unacceptable and long-term impact on ecology and on the rural landscape valued for its tranquility.

As the Scheme is not needed under UK Government Clean Energy Action Plan the impacts outweighs and benefits.

Removal of significant hedgerows and trees for access points, haul roads and to improve visibility is considered ‘insignificant’ across the documents. Replacing mature habitats with immature planting, that will take decades to grow as well as change the nature of the landscape itself. It is unacceptable and damaging to the natural ecology of the area.

The impacts need to be assessed as not just immediate loss of habitat in that place, but on how they are used as connectivity for species across the landscape. This latter point is a legal requirement within the Core Sustenance Zones for Barbestrelle bats and also needs to consider the Favourable Condition Status for both bats and hedgehogs.

Of special concern is the impact on Barbestrelle bats. The area lies within the Core Sustenance Zone of a number of interconnecting colonies (Norfolk Barbestrelle Study Group). Barbestrelle are especially prone to disruption from noise and lighting, and as it stands, the proposal gives grave concern for the bats’ future in the landscape should the Scheme proceed.
It is worth noting that Barbestrelles are present because this is a quiet area of small woods, mature trees, open grasslands, ponds, hedgerows and minimal lighting or disturbance. A Natural England licence will be needed for work in the vicinity of the barbestrelle roosts identified by the Norfolk Barbestrelle Study Group, and this is not clear in the application as it stands.

The solar scheme impacts several County Wildlife Sites and Sites of Special Scientific Interest, including Crow Green, Wood Green and Tyrrel’s Wood, Spring Wood, Krons Meadows plus Brooke-Saxlingham woodland cluster and sites along the Hempnall Beck. Local ecologists

consider this a landscape of irreplaceable habitats that are well connected by hedges and field margins, and which are well-buffered from impacts of noise, lighting and traffic.

Many haul routes and access points will damage designated Roadside Nature Reserves (RNR) including on Parker's Lane and Wood Lane as well as at the BESS site on Lodge Lane, Great Moulton to name a few. All have locally significant wildlife which are under threat including sites with the nationally scarce sulphur clover. These verges represent possibly the last, best fragments of lowland meadow in the Claylands. Lowland meadow is an irreplaceable habitat which has suffered a catastrophic loss in the Claylands since World War II (Countryside Commission figures, 1984 puts the loss at almost 98%).

As all the green lanes and Roadside Nature Reserves are often under recorded yet botanically rich. A full botanical survey should be carried out on all hedges and road side verges that are subject to alternation or on a major haul route for East Pye Solar. East Pye Solar has failed to do so.

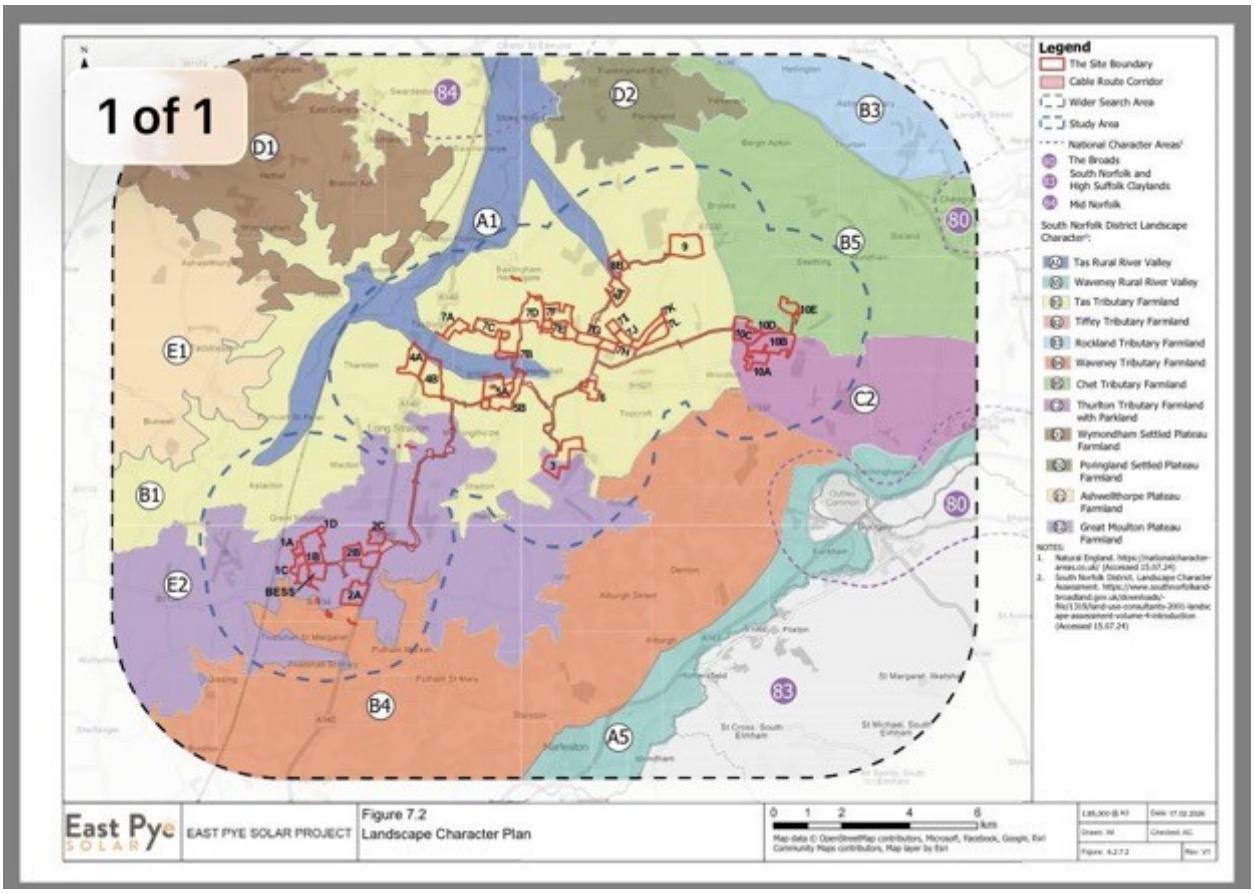
The crossings and disruption of the Hempnall Beck, near the Krons is considered of 'grave concern' by local ecologists. The stream runs into the River Tas, a chalk stream; pollution or changes to hydrology will be detrimental to the chalk stream, which is supporting White Clawed Crayfish. East Pye Solar have ignored the evidence from Norfolk Rivers Trust of the presence of white Clawed crayfish in the river Tas and within 2km from several sites including Site 7.

Other protected or threatened species in the area include hedgehog, yellowhammer, brown hare, badger, serotonin bats and a wide range of other bats, skylarks, linnets, bullfinch plus turtle dove (that breed annually at Wood Green), and other farmland birds. The loss of hedgerows and mature trees and the construction of the haulage roads, particularly on CRC4 and across Site 7, and construction noise, will have an impact on these species.

Even if the fields with the solar panels are designed to deliver a biodiversity uplift, the extent of construction for haul roads and cabling across the landscape will have a significant impact for wildlife.
Existing research shows that 6 out of 8 species of bat can be negatively impacted by solar schemes; this is especially high for those that use underground bat hibernacular, such as those within the County wildlife Site at Spring Wood.

Conclusion
The Scheme will be detrimental across the area to biodiversity, protected species, ecology and the ancient natural landscape of the Claylands.
Lack of seasonal surveys demonstrates the lack of care and attention that would be given to this very special and nature-rich area and presents a cumulative risk and impact across this sensitive area from this Scheme.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to ecology and it cannot be adequately addressed by project-specific mitigation alone.



19.3 Cumulative impact on heritage

East Pye Solar will impact heritage assets across the scheme including Conservation Areas and listed properties.

In excess of 300 Grade I, Grade II* and Grade II listed properties will be affected through the impact on the setting of these heritage assets, and causing industrial-scale visual changes.

East Pye documents consider the impact to be generally low and 'not significant' yet also state many heritage assets would experience *'some degree*' of change to their setting. That is not insignificant.

When something that is out of character and 'alien' is placed within 100m of a listed building, impact is going to be more significant than East Pye Solar are stating.

Just placing industrialisation within this significant ancient area of Claylands with centuries of agricultural heritage will be detrimental and harmful. Permanently changing the area to suit a scheme, and for private profit, is unacceptable.

When considering East Pye with other major infrastructure projects in South Norfolk, including solar schemes and transport projects such as the Long Stratton bypass, a combined impact concerns are raised:

- Combined effects on the setting of listed timber-framed clay lump buildings;
- Industrialisation of historic rural landscapes surrounding villages;
- The possibility that new planting would take decades to mature and screen infrastructure;
- Out of character screening alone would change the character of openness and this ancient rural environment;
- Cumulative interaction with multiple large energy projects proposed across South Norfolk;
- Loss of agricultural heritage with the conversion of farmland which risks destroying the tangible, historic and functional link between the communities and their agricultural past

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to heritage, and it cannot be adequately addressed by project-specific mitigation alone.

19.4 Cumulative impact on Transport and Traffic

Introducing of such a large scale industrial project in this specific rural location raised significant concerns regarding:

- Cumulative traffic impacts;
- The capacity of narrow country lanes to manage heavy construction vehicles as well as additional construction worker traffic;
- Wear and tear to narrow lanes and roads not designed or structured for such HGVs and AILs;
- Road widening to accommodate oversized vehicles on roads not intended for them will change the character of the area;
- Proximity of some Sites, for example, sub-sites 4A and 4B and Site 5, to major transport routes of the A140 or B1527 as well as key junctions, like the Hempnall roundabout, the Krons crossroads en route to Site 7;

- Manoeuvring large AIL and heavy haulage through Conservation Villages like Saxlingham Nethergate and Hempnall that put vulnerable properties and structures at risk of damage or destruction. Listed properties, vulnerable homes of timber frames and clay-lump constructions, homes with minimal or no foundations, walls and property boundaries, structures like the war memorial are highlighted on Section 56 if considered 'in the way';
- Road closures causing delay as well as cutting off communities from going about their daily life;
- National Highways highlighted concerns on junctions including that of the A47 with A140 which East Pye Solar has not surveyed nor assessed;
- Norfolk County Council have indicated they do not want access to sites from an 'A road' or anything less than a 'B road'. Yet East Pye Solar has created a transport and access plan that includes access from the A140 as well as small, single-track lanes that are 'C-roads'.

East Pye Solar are focusing their HGV routes on A140, B1527 and B1332. These are all main link routes across the local area allowing the traffic to disperse without major impact to small local lanes.
The **cumulative effects** of the East Pye Solar project, particularly when combined with the A140 **Long Stratton Bypass,** which is a major haul route north to south could lead to significant traffic pressure in the area.

The peak daily HGV movements, especially if they coincide with other local developments including the Long Stratton Neighbourhood expansion plan, will increase congestion.
The A140 and the bypass is a two way road that often experiences road closures from highway maintenance and accidents. This has an immense impact on narrow single track lanes in the surrounding area and unplanned closures generally brings the whole area to gridlock.
The local road network, while benefiting from the new bypass and the Hempnall roundabout, may struggle with the increased volume of heavy vehicles, particularly in the vicinity of Hempnall, Long Stratton and Great Moulton.

The current planning documents for the Scheme indicate that during the construction. Phase the expected HGV traffic is:

- Average daily HGV arrivals: 47 HGV a day
- Average daily HGV movements (arrivals and departures): 95 HGVs per day
- Peak Daily HGV arrivals: 69 HGVs per day
- Peak Daily HGV Movements: 138 two-way movements a day

Although the 'peak' figures would only occur at limited periods the impact will be significant.

The A140 is a major haul road north to south and is considered one of the main access routes across the scheme. With the A140S-B1527 exceeding the IEMA EATM guideline threshold of more than 10% on the flow increase of links with receptors of High Sensitivity (Long Stratton), the transport route for Sub-sites 2A, 2B, 2C, CRC3 and CRC4

needs rethinking. This is a major flaw, demonstrating lack of surveys and submitting plans too early without fundamental accuracy to the documents.
It also demonstrates the disconnect on the southern cluster from the north of the scheme.

The final details of the AILs haven't been completed but the impact to the A140 will be very significant and will have a major impact across the region.
National Highways state that the use of the A140 is not used as an AIL route due to the concerns of the weight limits on various bridges proposed for the route and raise particular concern to the junctions rather than the roads themselves in particular the junction of the A47 with A140.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to transport and traffic, and it cannot be adequately addressed by project-specific mitigation alone.

19.5 Cumulative impact of Noise and Vibrations

The proposed development of these sites indicates the following anticipated cumulative effects on noise and vibration which hasn't been properly addressed by East Pye Solar.

Construction Phase Impacts: Significant noise and vibration are expected, primarily from pile driving for solar arrays, construction noise as well as the movement of heavy machinery and HGV movement.

No consideration is given to residential amenity and the rural background noise levels including to multiple listed buildings within close proximity to sites across the scheme that are of sensitive construction like timber-framed clay lump houses and Grade I listed churches.

The construction phase is expected to last at least 24months, with potential for cumulative noise if multiple parcels are constructed simultaneously or in close proximity.

Lower background noise: Noise seems noticeably louder in rural areas even if the sound level meter would measure the same number of decibels. This is due to lower background (ambient) noise. Less constant sounds that create a 'noise floor' making any sound more significant and appear nearer and/or louder.

Less sound masking: A person's hearing is very sensitive to change in sound. A noise that rises 20dB above the background noise is more attention-grabbing than one that rises only 5dB above it even if the actual sound hasn't changed. Where the baseline starts lower, the noise will appear louder.

Sound travels further: Rural areas offer fewer buildings and obstacles to block or scatter sound allowing sound to propagate over greater distances. Some weather conditions like cool, still nights

allow sound to travel even further and seem unusually clear. With South Norfolk being predominately flat or only slightly undulating, sound travels greater distance.

Human perception: rural environments are significantly quieter than urban ones so sudden noises can feel more intrusive because the contract between silence and sound is much greater.

Operational Noise: While solar panels are considered silent, the operation of inverters, transformers, and Battery Energy Storage Systems (BESS) within the site will generate low-level, consistent noise. The cumulative impact would be the combined noise of this equipment at the closest receptors.

As no consideration has again been given to residential amenity and rural background levels, this will be detrimental and debilitating.

Transport and Access: Cumulative noise effects are expected due to increased construction traffic on the local road network.

Maintenance Noise: weekly maintenance vehicles and the tankers used for washing the panels will sound intrusive within the rural environment.

Replacement Noise: replacement of panels and BESS will be the same as construction noise and will be considerable within the rural environment and lasting up to 2 years.

Decommissioning Noise: this will similar to construction and will impact for at least 2 years causing.

Conclusion: no consideration has been given to how the Scheme's noise will impact the quiet rural environment and is considered 'not significant', nor considers impact within a rural impact.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to noise and vibrations, and it cannot be adequately addressed by project-specific mitigation alone.

19.6 Cumulative impact on air quality

Construction Dust and Emissions: The construction of multiple sites across the region creates potential for cumulative air quality. This includes dust soiling and increased PM10 concentrations, particularly for sensitive receptors within 350m of a site or 50m of transport routes. This will effect multiple listed buildings including Grade I Listed places of worship and many buildings of sensitive construction.

Construction Traffic: The project is expected to generate Heavy Duty Vehicle (HDV) movements that could impact local air quality, necessitating an assessment of how these movements interact with traffic from other local developments, such as housing in Long Stratton.

Haulage routes including the A140 alongside Long Stratton and proposed as the main north/south route as well as B1527 as the main east/west route through Hempnall will have impact on local air quality with increased daily numbers of HGVs and other site vehicles.

If a fire were to occur at the Battery Energy Storage System (BESS) located at Great Moulton, the primary air quality concern would be the release of a **toxic smoke plume** containing hazardous gases and particulates.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to air quality, and it cannot be adequately addressed by project-specific mitigation alone.

19.7 Cumulative socio-economic impact

The cumulative socioeconomic effects of the proposed East Pye Solar scheme will be significant on a local level even though East Pye Solar considers the impact to be of national benefit.

- **Loss of BMV agricultural land** from conventional production forever as the land will degrade;
- **No decommissioning bond to restore** the land to pre-scheme quality;
- **Land is due to be compulsory acquired** so the land will not be owned by pre-scheme landowners. It is unclear what East Pye Solar, or whoever owns the scheme at decommissioning, will do with the land once the scheme ends;
- **Loss of agricultural jobs** due to mass loss of land permanently in one area directly, due to less land to farm, as well as indirectly through reduced supply chain demand;
- **Agricultural jobs will be less desirable** due to loss of value put on the farming sector and growing quality, local food;
- **No permanent on-site jobs will be created** once the Scheme is in operation (East Pye Solar);
- **Jobs for construction will be recruited externally** and shipped in and out;
- **Permanent visual change to the rural landscape** over a substantial area altering the character of this ancient landscape through industrialisation forever;
- **Tourism** is Norfolk's largest economic sector bringing in £5.9 billion and employing 54,000 people. Add that to the hospitality industry and the added attractions in and around Norwich, which has just been voted Sunday Times Best Place to live in the UK 2026, East Pye Solar will have a major detrimental and financial loss on local and county-wide tourism;
- **Small, independent tourist attractions** or those businesses that rely heavily on visitors to boost local numbers during the holiday season will see a loss including holiday lets;
- **County-wide tourism** will see a loss as the A140 through Long Stratton is the major tourist route to the Norfolk Broads and the ‘tunnel of panels’ at Long Stratton will change the beauty of Norfolk. Add that to the cumulative impact of further schemes that are already scoping and waiting to utilise East Pye Solar infrastructure. The knock on effect is massive;

- **Pressure on rural roads** and the local network that local residents rely on to go about their daily life;
- **Closing PRoW** long term during the construction of the scheme will prevent people using them for leisure and as a practical route to reach the facilities of Long Stratton;
- **Changing the nature of PRoW** when reopened will ruin a quiet country walk to one of enclosure and industrialisation. Screening will take decades to hide fencing and panels but will also change the character of an area from openness to one of enclosure;
- **Marketability Issues:** A study by the University of Birmingham suggests a typical **5.4% reduction** in relative prices for properties within 750m of large solar scheme. Homes are already unsalable in negative equity or are falling through as plans are appearing on searches. Who would want to live in an area surrounded by industrialisation?;
- **Increase in house insurance** due to perceived flood and safety risks. Already happening;
- **Lack of Compensation:** Currently, there is **no statutory compensation** for residents who suffer a loss in property value or business income due to the proximity of an NSIP project, unless their land is physically acquired;
- **Infrastructure & Maintenance:** Concerns have been raised by Norfolk CPRE that the "industrialisation" of the countryside will require long-term public spending on road repairs due to heavy construction traffic without guaranteed local tax benefits
- Impact cost to local fire service that are all 'on-call' would mean additional personnel costs and specialised equipment would be required to be prepared for BESS fires and infrastructure disasters. This cost would impact local residents council tax.

Conclusion: The impacts fall disproportionately on local residents and the County while most of the perceived energy benefits will be distributed nationally whilst profit will be private.

South Norfolk will be an energy industrialised area for the rest of the UK, changing the nature of the area from rural to industrialised forever and opening the door for further industrialisation whilst large global invest banks make vast private profits for shareholders.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to socio-economic impact, and it cannot be adequately addressed by project-specific mitigation alone.

19.8 Cumulative impact to soils and agriculture

81% of the land proposed for East Pye Solar Sites is BMV Grade 1-3a. In addition to that is the cabling corridor which is also mainly of BMV Grade 1-3a (although never assessed by East Pye Solar).

The land will be removed from production for 60 years of the scheme as well as construction and decommissioning.

With no decommissioning bond to insist the land would be restored to at least its previous quality, the land will degrade and left at it's post-scheme quality. East Pye Solar state that the soil will degrade.

Potential cumulative effects include:

- **Reduced local production** of cereals, oilseed rape, sugar beet and other crops will impact supply changing;
- **Reduced flexibility** for local farming businesses;
- **Fragmentation of farm holding** making field operations less efficient especially during construction on the cable route corridor which will have fields dissected diagonally or down the middle;
- **Compulsory purchased land** will be removed from agriculture permanently;
- **Cabling Route** land will be removed from production for 2 years and will require several years to recover reducing productivity;
- **Potential impacts on local agricultural supply chains** if multiple projects affect the same area;
- **Soil Compaction and Structural Damage:** Construction, operation (maintenance traffic), and decommissioning phases will result in deep soil compaction, which can take many years to recover from;
- **Soil Erosion and Runoff:** The panels can create runoff that leads to soil loss through erosion;
- **Ecological and Agricultural Management** for Sites will be for convenience and ease of management rather than to encourage biodiversity gain;

Conclusion: The project's scoping report notes that while individual, smaller projects might not seem significant, the cumulative, regional, and national loss of soil resources and agricultural land from projects like East Pye contributes to a larger, long-term impact on the farming industry.
nsip-documents.planninginspectorate.gov.uk

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to soil and agriculture, and it cannot be adequately addressed by project-specific mitigation alone.

19.9 Cumulative impact to ground conditions

The cumulative impact on ground conditions from industrialised solar schemes when assessing across the lifetime of the 60 year scheme - from construction, through operation, replacement, to decommissioning.

The main cumulative impacts include:

Soil Compaction:

- Generally the greatest concern
- Compaction from heavy construction vehicles and cranes;
- Reduced soil porosity;
- Restricted root growth;
- Reduced infiltration of rainfall;
- Increased surface runoff and localised waterlogging.

If construction coincides with wet conditions compaction can extend well below the topsoil and may take years to recover.

Soil Structure and fertility:

Repeated disturbance from:

- Cable trenching;
- pile driving;
- access track compaction;
- substation foundations;
- BESS construction

All can alter soil horizons and reduce the quality of agricultural soils if reinstatement is poor. The BESS and Substations wont be reinstated.

With the large quantities of BMV land affected, cumulative disturbance across multiple projects could reduce the availability of high-quality agricultural soils for decades.

Erosion:

Construction exposes bare ground, increasing susceptibility to wind erosion, water erosion and sediment movement into nearby watercourses.

Drainage and hydrology:

Large solar schemes can cumulatively alter natural drainage patterns, infiltration rates, overland flow paths and local flood behaviour.

Although panels occupy only part of the land surface, concentrated runoff from panel edges can create localised erosion or ponding if drainage is not well designed.

East Pye have failed to properly assessed the drainage and runoff effects especially in close proximity to the river Tas as well as the area of Long Stratton that flood or is at risk of flooding annually.

Soil biology:

Although there is a belief that a solar scheme can have benefits to the soil biology there is no evidence to support improved biology over a 60 year timeline as it hasn't ever happened.

Industrial solar and infrastructure is very different from resting soil in a private scheme managed by the landowner that has a vested interest to protect the soil and get the best out of it.

Industrial solar is more likely to have a negative impact due to soil compaction, disturbance during installation and altered soil moisture beneath dense panel arrays.

Contamination risks:

Ground condition will be affected by accidental fuel or oil spills during construction, transformer oils, concrete washout, wheel washing, and disposal of damaged equipment.

Risk management is only as good as the person responsible and the company behind it. We have seen what happened to Thames Water and what is still happening to the rivers due to lack of maintenance and responsibility.

Post Decommissioning:

Even if soil is not permanently degraded or no decommissioning bond for soil restoration is in place, ground conditions can affect ease of cultivation after decommissioning, drainage performance especially across the clay soil within the area of East Pye Solar scheme, crop yields will be reduced as soil is less performing and machinery access could be harder due to structure of soil.

Conclusion: The real question for BMV grade 1-3a land is whether soils can realistically be restored to their original agricultural capability after 60 years? There is no evidence to say they can.

The potential long-term effects on agricultural soil quality and capability particularly where extensive areas of BMV are involved, and the extent to which multiple projects affect the same locality, cannot be mitigated against.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to ground conditions, and it cannot be adequately addressed by project-specific mitigation alone.

19.10 Cumulative impact of EMF

EMFs are generated by;

- Underground and aboveground AC cables;
- Inverters convert DC electricity from panels to AC)
- Transformers;
- On-site substations;
- BESS;
- Grid connection infrastructure

The solar panels themselves produce static (DC) electric fields but are considered weak and largely contained.

Effects on people:

Measurements at operating solar schemes are generally show magnetic fields:

- are highest immediately adjacent to transformers and underground cables;
- Drop off rapidly with distance (typically within a few meters);
- Are usually well below the exposure limits recommended;

Due to the rapid fall-off, cumulative exposure to nearby residents from a single solar field is generally low.

But what about multiple fields in close proximity to each other and on a far larger scale than previously researched? There is NO research to support or oppose EMF harm to humans on this scale however plenty of antidotal evidence.

Cumulative effects on wildlife are very different especially on bats, pollinators, fish and aquatic life although research is still limited it is now showing signs of being detrimental.

Cumulative effects of EMF exposure with other infrastructure associated with industrial sized solar like high-voltage transmission lines, BESS, substations is considered greater especially if exposure is near them all.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider EMF harm, and it cannot be adequately addressed by project-specific mitigation alone.

19.11 Cumulative impact to utilities

The cumulative impact on utilities in relation to the multiple Sub-Sites of 7 of the East Pye Solar proposal becomes significant once the scheme is assessed alongside other solar projects, housing

growth, grid-reinforcement works, and energy infrastructure upgrades in the Long Stratton area and surrounding villages.

This Site comprises several rural parishes with limited existing utility capacity, minimal redundancy, and infrastructure designed for dispersed agricultural use, not for industrial-scale generation.

Local network improvements are about avoiding future power outages not expanding the capacity.

The area currently has:

- Low-capacity rural electricity distribution (11-33kV);
- Limited water and wastewater infrastructure, often reliant on small mains or private systems;
- Minimal telecoms infrastructure, with patchy mobile coverage and limited fibre. Many households rely on satellite

Many rural properties rely on satellite services, like Starlink, for communication and many mobile phone providers are now offering satellite services as backup due to issues with signal problems in rural environments.

The Scheme includes extensive power conversion equipment, BESS installations and multiple high-voltage substations. The Environmental Statement should clarify whether electromagnetic emissions have been assessed for compatibility with modern satellite broadband services operating in Ku- and Ka-band frequencies, including user terminals located within the nearby rural properties, together with any proposed monitoring and complaint resolution procedures should interference be reported during operation.

The baseline is highly sensitive to cumulative pressure.

Cumulative effects occur when Site 7 of the East Pye Solar scheme is considered along side:

- Other solar projects feeding into the same grid corridor;
- Housing developments in Long Stratton, Hempnall, Tasburgh and beyond;
- Grid-reinforcement works for the Norwich-Branford 400kV line;
- Battery Storage installations;
- Road and drainage upgrades.

Each development places demands on utilities and together they create system-wide stress.

Site 7, when assessed cumulatively with other Solar proposals, housing development and energy-infrastructure works, would:

- Overload local electricity and telecoms network;
- Increase pressure on water and wastewater systems;
- Alter drainage and hydrology across multiple sites;
- Create long-term waste- management challenges;
- Introduce permanent grid-reinforcement.

This would result in major adverse cumulative impacts on utilities that cannot be mitigated. This cumulative connection is a material planning concern under the NSIP cumulative effects guidance, NFFP infrastructure policies and local plan requirements for sustainable development.

19.12 Cumulative impact of major accidents and disasters

The Scoping Opinion issued in **February 2025** explicitly requested that "Major Accidents and Disasters" be a dedicated chapter in the upcoming Environmental Statement, rather than being "scoped out" as originally proposed by the developer.
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Site 7 is an Area of mixed sensitivity:

- *Of High Sensitivity yet seen as low-risk baseline even though it has a major road network passing through it;*
- *The area of Long Stratton, Tharston and Hapton Parish, along with all the surrounding parishes, is served by limited-capacity emergency services using the same narrow rural lanes as residents;*
- *Characterised as main settlement and dispersed properties, farms and heritage assets with long response times in adverse conditions;*
- *Fire and Rescue is mainly run as 'on-call';*
- *The nearest A&E department is approximately 15 miles away and would take 30mins on a blue light;*
- *Assisted by air ambulance for longer distances and more serious emergencies;*
- *The main emergency route is A140 from Norwich for specialist Fire and Rescue as well as emergency medical attendance.*

That means the landscape has little built-in resilience to multiple, simultaneous incidents.

Cumulative risk arises when Site 7 of the East Pye Solar scheme is considered alongside:

- Other solar sites, further solar projects and associated BESS and Substations;
- Housing growth and increased traffic;
- Grid-reinforcement works and high-voltage infrastructure;
- More HGVs, more plant, more people, and more complex utility networks.

Each scheme in isolation is presented as 'low-risk' however together they raise the probability, complexity and consequence of major incidents.

When assessed cumulatively with other solar projects, housing growth and grid-reinforcement works, East Pye Solar materially increases the overall risk profile of the parish, and neighbouring parishes within the scheme, in relation to major accidents and disasters.

The combination of intensified HGV traffic, BESS and substation fire potential, pollution pathways, altered drainage and constrained emergency access results is a higher likelihood and greater consequence of serious incidents than would otherwise exist in this low-risk rural area.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider major accidents and disasters, and it cannot be adequately addressed by project-specific mitigation alone.

19.13 Cumulative impact of glint and glare

- **Cumulative Impact Potential:** Cumulative glint and glare effects are considered possible for the East Pye Solar Project especially to Sub-sites next to road networks like Site 4 and Site 2C that are adjacent to the A140 and Site 5 next to B1527, causing visual discomfort and, the very least, sudden distraction;
- Glint and Glare will be noticeable across the area especially from those sites that are on elevated or undulating topography like site 5 and site 7 or stood proud of the road network like Sub-Site 4A;
- **Tibenham Airfield (Gliding Centre):** The General Aviation Advisory Committee (GAAC) and local gliding clubs have raised significant safety concerns regarding the proximity of East Pye Solar to Tibenham Airfield regarding glint and glare, bird strike and proximity to the runway;
- **MoD** have raised objections to The Droves due to safety concerns over bird strike and interference with radar as well as glint and glare. As the area of South Norfolk proposed for East Pye Solar is used daily by RAF and AAF for ‘dog fighting’ manoeuvres and low flying military transport plans, the scheme could have significant impact to their daily flight training and should be considered;
- **Glint and Glare:** A dedicated technical assessment is required to evaluate potential dazzle for pilots on approach or in the circuit. The Scoping Opinion mandates that the Environmental Statement (ES) assess these effects for both Tibenham and other nearby private airfields (e.g., Old Buckenham Aerodrome).

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider glint and glare risk, and it cannot be adequately addressed by project-specific mitigation alone.

Conclusion

The scheme would cause extensive and, in several respects, unmitigable harm to protected species, chalk-stream ecology, ancient woodland and SSSI-linked habitats, designated and non-designated heritage assets, best and most versatile agricultural land, rural communities, public rights of way, landscape character and local infrastructure. These harms are location-specific and cannot be made acceptable simply by later mitigation, planting, management plans, or post-consent licensing. They are not outweighed by any demonstrated regional need for this scheme in this location, particularly where the applicant has not shown that East Pye Solar is required to meet East Anglia's renewable energy targets or that less harmful alternatives have been properly assessed. The project therefore fails the basic planning balance: it would impose severe, long-term and legally significant harm on South Norfolk without a compelling, site-specific public need.

In particular, Site 7 should not be included within the East Pye Solar Development Consent Order application. Site 7 is not merely environmentally sensitive. It contains multiple legal, ecological, hydrological, heritage and infrastructure constraints which have not been resolved and which, on the available evidence, are not capable of being made acceptable by mitigation, later survey work, planning requirements, or post-consent licensing.

Site 7 is the largest land parcel grouping in the East Pye Solar scheme. The applicant's own scoping material describes Site 7 as 327 hectares and confirms that it comprises twelve sub-sites, 7A to 7L. It lies close to Hempnall, Tasburgh, Saxlingham Nethergate and Woodton, with residential properties recorded as close as 30 metres from sub-site 7D, 120 metres from 7F, and 15 metres from 7L. The applicant also identifies multiple ancient woodlands within 2 km of Site 7, including Saxlingham Grove adjacent to sub-sites 7F and 7G, and confirms that Shotesham-Woodton Hornbeam Woods SSSI borders sub-sites 7F, 7G and 7H.

The effect is that Site 7 is not an ordinary agricultural site. It is a large, fragmented and ecologically connected block of land within a sensitive chalk-stream catchment, adjoining ancient woodland and SSSI habitat, overlapping functionally important bat habitat, affecting historic rural settlements and conservation-area settings, and requiring works close to or through highly constrained rural lanes, public rights of way, utilities and water receptors.

For the reasons set out below, the Examining Authority should treat Site 7 as a fundamental objection point. It should not be included in the Order Limits unless and until the applicant can demonstrate a lawful, deliverable and environmentally acceptable scheme. On the current evidence, it has not done so.

1. Site 7 has no demonstrated need sufficient to justify these location-specific harms

The applicant relies on a general national need for renewable energy. That is not sufficient to justify placing this particular scale of industrial solar and electricity infrastructure in this particular location especially that regional transmission solar capacity targets are met or exceeded by existing,

consented and pipeline projects, and that general claims about “optionality” or attrition do not justify severe harm in a highly sensitive landscape.

The most serious harms on Site 7 are not generic or readily mitigable. They arise from the location itself: proximity to ancient woodland and SSSI habitat, the River Tas chalk-stream catchment, confirmed protected species habitat, Saxlingham Nethergate and other historic settlements, narrow historic lanes, public rights of way and rural infrastructure. If a scheme is not required in this location, these harms cannot be justified merely by invoking national renewable energy policy at a high level.

2. Barbastelle bats: no credible European Protected Species licensing pathway

East Pye Solar has confirmed that the whole area of the Scheme is of national importance for bats. Land Parcel 7 lies within overlapping Core Sustenance Zones for barbastelle bats, a European Protected Species, and directly adjoins ancient woodland confirmed to support maternity colonies. It identifies Saxlingham Nethergate 7D and 7F as land essential for foraging, commuting and maintaining functional connectivity between maternity sites.

This is not a minor ecological matter that can be solved by planting hedges around solar panels. Barbastelles are highly light-sensitive, woodland-edge and dark-corridor specialists. The proposed development would introduce solar arrays, fencing, access tracks, lighting, construction activity and a 132 kV substation within a landscape used for commuting and foraging.

Because barbastelles are European Protected Species, the relevant question is not simply whether some mitigation might reduce effects. The question is whether the applicant can demonstrate a licensable development pathway. That requires satisfaction of the strict derogation tests, including no satisfactory alternative and maintenance of favourable conservation status. Where a development would damage or sever functional habitat within overlapping maternity-colony sustenance zones, the licensing bar is high. On the evidence available, the applicant has not demonstrated that a Natural England EPS licence could lawfully be granted.

This gateway issue cannot be left to a post-consent licence application. A DCO should not be granted on the assumption that a lawful EPS licence will later be obtained where the evidence before the Examination indicates that favourable conservation status cannot be guaranteed and no satisfactory alternative layout has been demonstrated. If Site 7 is functionally required to the scheme but cannot be licensed, that undermines the deliverability of the whole development.

3. Ancient woodland and SSSI risk: Site 7 is immediately adjacent to protected ecological assets

The applicant’s own scoping description confirms the proximity of Site 7 to multiple ancient woodlands and nationally designated ecological sites. Saxlingham Grove is recorded as adjacent to sub-sites 7F and 7G, while Shotesham-Woodton Hornbeam Woods SSSI borders sub-sites 7F, 7G and 7H.

This proximity is significant because the harm is not limited to direct land-take. Solar development at this scale can affect ancient woodland and SSSI function through hydrological change, dust, lighting, noise, vibration, construction disturbance, changes in predator pressure, fragmentation of commuting routes, and alteration of the surrounding supporting habitat. The applicant has not demonstrated that these effects can be excluded, particularly where the same land is also part of a wider barbastelle bat landscape.

The SSSI and ancient woodland context reinforces the legal seriousness of the Site 7 objection. These are not ordinary receptors. They carry strong national policy and statutory protection. Where development directly abuts such assets, the burden is on the applicant to prove that harm will be avoided, not merely that it may be managed later through outline plans.

4. River Tas chalk stream and white-clawed crayfish: no lawful construction methodology has been demonstrated

Site 7 is directly hydrologically connected to the river Tas chalk stream; drilling under the Tas is proposed to link Sites 5 and 7. Recent survey evidence from Norfolk Rivers Trust, provided to the applicant in December 2025, identifies a breeding colony of white-clawed crayfish in the Tas at Saxlingham Thorpe within 2KM of site 7. The applicant's 'walk-over' aquatic surveys, carried out when ditches and streams were dry, are inadequate in these circumstances.

White-clawed crayfish are a highly protected and declining native species. The Environment Agency's scoping comments record that EA records show the presence of white-clawed crayfish in the River Tas. The EA recommended a commitment to survey for crayfish at relevant locations when works affecting watercourses are known. The same comments identify the River Tas as a chalk stream priority habitat and a focus of EA activity.

This is a major legal and practical constraint. The construction of Site 7 would require cabling, trenching, haulage, possible Horizontal Directional Drilling, works near ditches and watercourses, and potentially works within a fissured chalk geology. There are clear risk pathways: cabling and trenching, potential HDD beneath or near fissured chalk, haulage and compaction, and sediment and pollution risk to the hyporheic zone.

Chalk streams are exceptionally sensitive to sedimentation, pollution, hydrological disturbance and changes to groundwater/surface-water interaction. White-clawed crayfish are particularly vulnerable to sediment, pollution, habitat disturbance and invasive species transfer. Without full crayfish surveys, a hydrological and hydrogeological assessment, a Water Framework Directive assessment, and a proven construction method, the applicant cannot demonstrate that Site 7 can be built without unlawful harm.

It is not enough for the applicant to say that watercourse impacts will be managed through a future CEMP or later method statements. If the development requires works in or near a chalk stream supporting protected species, the lawful construction pathway must be demonstrated before consent.

5. Water Framework Directive and water environment: the applicant has not proved no deterioration

Site 7 sits in a highly sensitive chalk-stream and chalk-aquifer catchment, with a high degree of hydrological connectivity directly to the Tas chalk stream. Impacts on private water supplies, private sewerage and hydrological connectivity have not been properly assessed.

Any watercourse crossing, ditch crossing, HDD, haul route, trenching, runoff change, compaction, sediment release or pollution pathway must be assessed against the requirement to prevent deterioration in waterbody status. The applicant has not shown that the construction and operation of Site 7 would avoid deterioration of the River Tas system or avoid impacts on priority chalk-stream ecology.

Where a scheme risks deterioration of a chalk stream and harm to protected aquatic species, the legal test is precautionary and evidence-led. On the present material, the applicant has not supplied the required evidence to pass that test.

6. Absence of botanical survey: the ecological baseline is legally inadequate

A level 6 botanist familiar with the local botanical record wrote an open letter, copied to East Pye Solar pre-application, stating that rare and priority plant assemblages associated with long-established grassland, roadside verges, access routes and cable corridors were in the location of this Scheme. He called for two season surveys to be undertaken to understand the botanical baseline before the application progressed further. This work has not been carried out.

Site 7, its access routes and cable corridors are known to support very rare botanical assemblages, no botanical survey has been carried out despite road-widening and haul-road proposals. The absence of botanical survey is not a minor evidential gap. It means the applicant has not established which habitats and species would be lost, damaged or fragmented. Without that baseline, the applicant cannot lawfully finalise the layout, design road widening, design cable routes, assess Biodiversity Net Gain, assess cumulative ecological impacts, or prove that impacts can be avoided or mitigated.

A DCO should not be granted where the applicant has not identified the ecological assets it may destroy.

7. Heritage, conservation areas and historic rural landscape: harm cannot be screened away by distance

Site 7 lies within a historic rural landscape of high sensitivity. South Norfolk is of national importance for its quantity and quality of pre-1750 rural architecture, with over 300 listed buildings in the zone of influence. Site 7 is so large that the settings of multiple Grade II* and Grade II listed buildings and conservation areas are affected.

The Site 7 poses direct harm to Saxlingham Green Conservation Area and listed buildings. Saxlingham Nethergate is not simply a receptor near the scheme, but is part of the historic

experience of the landscape affected by sub-sites 7D and 7F, construction routes, AIL routes, lighting, fencing, traffic, and the industrialisation of open rural approaches.

The settings of listed buildings and conservation areas must be properly assessed, and great weight must be given to their conservation. In a landscape where listed buildings, ancient lanes, historic greens, church approaches, Boudica Way, and rural settlement form a coherent historic environment, the harm is cumulative and experiential.

Screening heritage harm by arbitrary distance or relying on future planting is not adequate. Planting does not restore tranquillity, remove industrial character, undo fencing, remove substations, prevent traffic vibration, or preserve the historic relationship between village, lanes, fields and public routes.

8. Public rights of way, Boudicca Way and historic route severance

Site 7 poses serious harm to public rights of way and to Boudicca Way, which is South Norfolk's only long-distance footpath. Boudicca Way runs along the length of the Saxlingham Green conservation area and links with Boudicca Way. Industrial solar development would destroy historic and experiential value, conflict with public access and heritage objectives, and create perceived unsafe confined spaces for users.

High security fencing, panels, substations, cabling compounds, construction traffic, AIL movements and loss of open rural views would change the character of the rights-of-way network for the lifetime of the development. Multiple public rights of way and recreational receptors would be impacted across Site 7, including Hempnall FP1-5, Hempnall BR30, Saxlingham Nethergate FP9-14, FP27, FP28, Saxlingham Nethergate RB17, Tasburgh FP2 and Woodton RBN10.

For a 60-year development, this is not temporary disruption. It is the long-term industrialisation and enclosure of a historic rural access network for the remaining lifetimes of most residents.

9. High-pressure gas main and utilities: unresolved safety and deliverability risk

The high-pressure gas main crosses land parcel 7F and passes close to the proposed substation, creating a fire and explosion safety concern. Rural fibre-optic broadband infrastructure is situated within Land Parcel 7; the applicant has not mapped it, consulted operators or users, or assessed diversion, protection or outage risk.

These are not peripheral utility issues. A high-pressure gas main close to electrical infrastructure, construction compounds, cabling, fencing and access works is a major constraint. Similarly, rural broadband is essential infrastructure for homes, farms and businesses. Damage or diversion could cause significant community and business harm and may materially affect construction feasibility.

The applicant has not demonstrated that Site 7 can be constructed and operated safely around these constraints. A DCO should not authorise development over or near such infrastructure on the basis of later discovery and later agreement.

10. Residential amenity, schools, care home and rural lanes

Site 7 gives rise to serious and unresolved objections in relation to construction traffic, Abnormal Indivisible Loads, noise and vibration, highway safety and residential amenity. The applicant's own scoping material records residential receptors extremely close to Site 7, including properties approximately 30 metres north of 7D, 120 metres north-east of 7F, and 15 metres east of 7L. The noise and vibration baseline also identifies sensitive receptors around Church Lane, The Green, Springwood Lane, Pymars Lane, Fairstead Lane, Quaker Lane, Tasburgh and other locations surrounding Site 7, together with numerous public rights of way used by walkers, riders, cyclists and local residents.

These are not remote or isolated receptors. They are homes, village streets, rural lanes, a primary school, a care home on The Green at Saxlingham Nethergate, historic buildings and community routes lying close to proposed construction areas, construction compounds, access routes, cable works and AIL routes. The applicant has not demonstrated that construction traffic, HGV movements, AIL deliveries, road widening, vegetation removal, temporary traffic management, noise, vibration, dust and disturbance can be accommodated without unacceptable harm to residents and road users.

Saxlingham Nethergate is particularly sensitive. It has narrow unclassified roads, existing congestion, known flooding constraints, restricted HGV access and historic buildings close to the proposed AIL route. The movement of abnormal loads, heavy construction vehicles and associated plant through or near this village would create obvious risks to highway safety, pedestrian safety, school access, care-home amenity, residential tranquillity and the structural integrity of vulnerable historic buildings. These impacts are not adequately addressed by reliance on a future Construction Traffic Management Plan or later route agreements.

The problem is not simply the number of vehicle movements. It is the incompatibility between industrial-scale construction logistics and a rural village-edge road network that was never designed for this type or intensity of traffic. Narrow lanes, close residential frontages, limited passing places, constrained junctions, flooding, public rights of way, school movements and vulnerable receptors all reduce the practical scope for mitigation. Measures such as timing restrictions, banksmen, signage or temporary traffic controls cannot remove the fundamental conflict between the scheme and the local highway environment.

The same constraints also undermine construction feasibility more broadly. The narrow lanes and close receptors that make traffic impacts unacceptable also constrain emergency access, ecological mitigation, heritage protection, noise control and safe construction working. For Site 7, traffic, AILs, noise and residential amenity are therefore not secondary matters. They are part of the wider case that this land parcel is unsuitable and undeliverable for industrial-scale solar and associated electricity infrastructure.

11. Cumulative impact and no credible construction scenario

Any one of the above issues would require serious examination. Taken together, they show that Site 7 is not deliverable as proposed. No licensable ecological pathway has been demonstrated, no lawful

construction methodology has been shown for the River Tas, no ecologically informed layout is possible, and no reliable infrastructure protection strategy exists.

Site 7 cannot be treated as a normal land parcel where residual impacts can be balanced against claimed benefits. It is a convergence point for strict legal protections and unresolved physical constraints. The applicant is asking the decision-maker to assume that multiple future licences, surveys, approvals, method statements and mitigation plans will all be achievable. That is not a robust basis for consent.

12. Relief sought

We respectfully request that the Examining Authority and Secretary of State refuse development consent for East Pye Solar.

In the alternative, Site 7 should be removed from the Order Limits unless the applicant first provides, and consults upon, a legally adequate evidence base demonstrating:

• full barbastelle bat survey evidence and a credible Natural England EPS licensing pathway;

• proof that favourable conservation status of barbastelles and other protected species can be maintained;

• full white-clawed crayfish surveys and assessment of all River Tas, ditch, cable, HDD and haul-road impacts;

• a Water Framework Directive screening and, if required, full assessment demonstrating no deterioration;

• full-season botanical surveys of Site 7, access routes, verges, road-widening areas and cable corridors;

• a revised Biodiversity Net Gain assessment based on actual survey data;

• a complete hydrological and hydrogeological assessment of the River Tas, ditches, chalk aquifer, private sewerage and vulnerable water receptors;

• a full heritage-setting assessment for Saxlingham Nethergate, Saxlingham Green, listed buildings, conservation areas and historic routeways;

• a public rights of way and Boudicca Way assessment that addresses qualitative severance, safety, enclosure and loss of historic experience;

• a utilities and safety assessment for the high-pressure gas main, broadband infrastructure and any other buried services;

• and a revised construction methodology proving that Site 7 can actually be built without unlawful ecological, hydrological, heritage, safety or community harm.

Unless and until that evidence is supplied, Site 7 should be treated as legally and practically undeliverable. The applicant has not shown that this harmful scheme is necessary, fairly assessed, lawfully licensable, or environmentally acceptable in this location.

AI Statement: BEPS works from manual research carried out by its human research team. It also uses a bespoke GPT within a closed project folder to cross-reference manual research with uploaded East Pye Solar ES chapters, statutory consultee submissions, peer-reviewed research documents, EIA best practice, PINS scoping and other PINS documents. Responses are structured and drafted within the closed project but all submissions are argued, assembled, edited, checked manually by humans, and are the responsibility of BEPS.