

I am an Interested Party both as an individual citizen as well as in my elected role of [REDACTED] Howe Parish Meet and I submit this comment in both capacities.

I strongly support all challenges put forward by the Block East Pye Solar (BEPS) group in its latest submission document entitled ' Consolidated Summary of BEPS's Written Representations

Chapters 1–20: Principal Evidence, Unresolved
Constraints and Consequences for Development

Consent '. I upload a copy of this document later in this submission.

However, I believe that the document omits comment on a strategically significant aspect of the discussion namely, the political representative impact.

Norfolk County Council, the various affected district councils (South Norfolk Council primarily) and the many town and parish councils are unanimous in their opposition to the East Pye Solar proposed scheme. To support a proposal in the face of that opposition would completely run roughshod over local democracy. Further, it would run counter to the Central Government policy of devolving power and decision making to the local political levels.

Consolidated Summary of BEPS's Written Representations

Chapters 1–20: Principal Evidence, Unresolved Constraints and Consequences for Development Consent

BEPS objects to East Pye Solar as a whole. The objection is not to solar generation in principle. It is that the Application has not demonstrated that this particular 500 MW-scale transmission-connected development, dispersed across approximately 1,212 hectares of South Norfolk, is necessary in this location, environmentally acceptable, physically deliverable and sufficiently defined and controlled to justify either development consent or the extensive compulsory powers sought.

The case against consent develops cumulatively through BEPS's Written Representation. Chapter 1 challenges the claimed project-specific need and establishes the correct good-design test. Chapters 2 and 3 demonstrate that the EIA methodology and description of the receiving environment fragment an interconnected landscape and leave material baseline uncertainty. Chapters 4 and 5 show that the Scheme remains materially uncertain and that its present location and scale resulted from a site-selection process strongly conditioned by a pre-existing land package. Chapters 6 and 7 question the weight that can safely be attributed to the principal climate benefit while establishing substantial admitted landscape harm. Chapters 8 to 18 then identify specific ecological, hydrological, heritage, transport, agricultural, ground-condition, noise, EMF and major-infrastructure constraints. Chapter 19 demonstrates why those effects cannot properly be assessed in isolation. Chapter 20 shows that the Applicant's residual-effects summary does not reconcile the evidence which precedes it.

Preliminary Chapter: DCO and Compulsory Acquisition

The preliminary objection concerns the statutory powers sought for a Scheme whose final implementation remains materially uncertain. The Order Limits extend to approximately 1,212.3 ha. The draft DCO seeks power under Article 21 to acquire interests in land, including freehold, together with permanent rights, restrictions and temporary-possession powers. Compulsory freehold powers extend to parts of Work No. 1, the solar generating station itself, as well as the BESS, substations and other Works. Yet the Applicant's Statement of Reasons confirms that Option Agreements have already been entered into for the Solar PV Sites, BESS and substations and expressly refers to the possibility of a landowner failing to grant the Applicant the lease

contemplated by an Option Agreement. The Applicant therefore appears to contemplate leasehold occupation voluntarily while seeking a statutory power capable of permanently acquiring the freehold compulsorily.

That distinction engages the separate statutory test in section 122 of the Planning Act 2008. A need to control land for 60 years does not, without further justification, establish a need to own the freehold permanently. Nor does compensation answer that prior question of necessity. The Applicant must demonstrate why the particular interest sought is required and why a lesser interest – leasehold, permanent rights, restrictions or temporary possession – would not suffice.

The problem is intensified by uncertainty over the development for which those powers are sought. The Solar generation element has Gate 2 Phase 2 prioritisation, whereas the BESS remains at Gate 1, with no confirmed indicative connection date and no clear mechanism to get one.

The DCO may permit solar without BESS, delayed or reduced BESS, partial build-out and unused cable or substation infrastructure. Compulsory powers should not continue over land required only for an optional or ultimately omitted Work.

The National Grid position is more fundamental. NGET states that the replacement connection agreement is not expected to require East Pye to secure the land or consent for the proposed National Grid Substation; that DCO consent would not oblige NGET to use that substation; and that the final point-of-connection solution cannot yet be confirmed. The land requirement therefore remains contingent upon an unresolved transmission solution. Permanent compulsory acquisition cannot properly be justified merely to preserve one possible future connection option.

The preliminary chapter consequently establishes a legal-control problem which persists throughout the WR: the Applicant seeks broad statutory powers before the Scheme, land requirement, connection solution and mitigation package have been resolved with corresponding precision.

Chapter 1: Need, Good Design and the Public-Interest Case

Chapter 1 distinguishes the undisputed national need for renewable electricity from the claimed need for East Pye Solar itself. That distinction is central to the planning balance.

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 T7 Tx+Dx solar modelling envelope. BEPS does not contend that 3,300 MW is a statutory cap. The material point is that NESO's FOI response records that its Gate 2 'at/over CP2035' assessment used only operational

capacity—552.84 MW at the Gate 2 window close—rather than the wider consented and in-planning pipeline. Gate 2 allocation therefore does not, without more, establish an unmet T7 need which East Pye Solar is required to satisfy.

The connection case is also less certain than a simple statement of Gate 2 status suggests. The WR records that formal revised transmission offers are subject to further engineering review, while the associated BESS remains Gate 1. The Scheme therefore cannot derive firm project-specific balancing, congestion or flexibility benefits from a storage component whose equivalent connection position has not been demonstrated.

The significance of East Pye’s Gate 2 status must be understood in the context of the material change made to the regional solar targets immediately before Ofgem approved connections reform. NESO’s original Clean Power 2030 ‘independent’ advice did not envisage a system dominated by transmission-connected solar. Its pathways assumed that approximately 90% of solar capacity would be connected to the distribution network, expressly noting that the connections queue already contained more solar capacity than was required. The December 2024 Connections Reform framework reflected that approach by applying separate transmission and distribution regional allocations. In T7 East Anglia the original transmission-solar allocation was only 100 MW for 2030 and approximately 900 MW for 2031–35. NESO’s own December 2024 assessment showed a transmission-solar queue in T7 many times larger than that 2035 allocation.

The subsequent change by DESNZ to the regional solar targets was not prompted by a finding that the overall national solar requirement had increased. It arose because the volume of large transmission-connected projects already being promoted did not fit the transmission allocations. On 7 April 2025 DESNZ stated expressly that there was a ‘misalignment’ because the increased transmission solar pipeline had not been reflected in the modelling underlying the original Clean Power 2030 advice. Following what DESNZ described as ‘extensive’ engagement with Ofgem, NESO and stakeholders, it decided to amalgamate the transmission and distribution solar allocations for 2031–35. The total national solar allocation was not increased; the distinction between the two network levels was removed, enabling the most advanced projects to compete for one combined regional allowance. For T7, the resulting 2035 Tx+Dx solar capacity became 3,300 MW.

That policy change occurred against documented engagement with transmission-scale solar developers. BEPS’s documentary record obtained through EIR and FOI includes the 3 December 2024 letter from Island Green Power and other solar developers seeking changes to the regional connections methodology. More significantly, NESO’s subsequent EIR disclosure confirms a January 2025 email thread and meeting involving Macquarie, DESNZ and NESO. Macquarie proposed a ‘deep dive’ into ‘6-7’ case studies which were ‘assets of Island Green Power’, and sought to ‘sense-check’ NESO/DESNZ thinking. The disclosed list of projects to be walked through expressly included the 500 MW ‘Long Stratton PV & Bess Station (East Pye)’ in T7. The disclosed slides reveal that T7 was the first of the project-specific case studies discussed at the 27 January 2025 meeting between DESNZ Macquarie at the latter’s London offices. The FOI documents

demonstrate that East Pye Solar itself was expressly before DESNZ as part of Macquarie/IGP's project-specific discussion of the consequences of connections reform. East Pye Solar Ltd is a subsidiary of Island Green Power, which is wholly owned by Macquarie Asset Management. DESNZ is in a quasi-judicial capacity as decision-maker on granting development consent to this project.

The Ofgem evidence makes the consequence of that change to combine distribution and transmission targets particularly important. Its 15 April 2025 TM04+ Impact Assessment records a T7 combined 2035 solar allowance of 3.3 GW. Against that allowance, Ofgem identified 660 MW already built, 122 MW under construction, 380 MW with planning consent and 3,418 MW with planning submitted. Thus, projects already built or at least in the planning system totalled approximately **4.58 GW**, around **1.28 GW above the new 3.3 GW T7 regional allowance**, before adding a further 2,180 MW recorded as having land rights and 4,531 MW whose land-rights status was unknown. Ofgem's own Gate 2 modelling went further: its medium scenario filled the entire 3,300 MW T7 allowance with 660 MW built, 122 MW under construction, 380 MW consented and 2,139 MW of planning-submitted projects, with **no capacity required from the land-rights-only category**. Ofgem itself described the wider queue as showing 'significant over-supply' of solar and batteries.

That chronology materially limits what can properly be inferred from East Pye subsequently obtaining Gate 2 status. It does not establish that the project itself is required to meet an unmet regional generation requirement. Indeed, Ofgem expressly recognised that amalgamating Tx and Dx allocations made substantially more well-advanced solar projects eligible for Gate 2 and increased the solar capacity expected to receive Gate 2 terms from approximately 39 GW to 65 GW nationally. In T7, Ofgem's April 2025 evidence showed that the revised regional allowance could already be filled by projects at planning-submitted stage or beyond. Gate 2 status should therefore not be treated as independent proof that East Pye Solar is necessary: it is an outcome of a methodology which was itself changed because the transmission-project pipeline exceeded the assumptions on which the original Tx/Dx allocations had been based.

This does not require the ExA to find impropriety in the Government's engagement with industry. The narrower and stronger planning point is evidential. The original system analysis anticipated overwhelmingly distribution-connected solar; transmission developers then pressed for changes to a methodology under which large parts of their pipeline risked falling outside the relevant capacity allocations; Government amalgamated the Tx and Dx allocations without increasing the overall national solar requirement; and Ofgem's contemporaneous analysis showed that East Anglia already had more advanced solar capacity in the pipeline than the enlarged combined regional allowance. In those circumstances, **East Pye's Gate 2 status cannot reasonably carry significant weight as evidence of project-specific or locational necessity**. The environmental harms identified throughout this Written Representation must therefore be weighed against the demonstrated benefits of East Pye Solar itself, not against an assumption that Gate 2 proves that this particular 500 MW development is required in South Norfolk.

The BESS case is also clear cut. There is no need for it, either regionally or nationally. It has Gate 1 status and is unlikely ever to progress to Gate 2. On 18 September 2026, Ofgem announced that the **national** BESS Gate 2 queue (with confirmed grid connections) is now 61.7GW above the 29GW required by 2035. Ofgem already halved the queue at the beginning of this year in its connections reform process, but is now trying to cull further as so many BESS received Gate 2 due to protections.

This oversupply of BESS is particularly extreme in the T7 East Anglia region. East Pye Solar proposes a 500MW BESS. Government's current connections-reform allocation for transmission-connected batteries in the whole of T7 East Anglia is only 200 MW for 2030 and 200 MW for 2035. NESO's February 2026 EIR response disclosed that T7 already has 784 MW of 2030 **Gate 2** batteries and 927.6 MW of 2031-35 **Gate 2** batteries — 1,711.6 MW in total. It expressly says there is 'significant oversupply of batteries' in T7 relative to the Clean Power 2030 capacity figures. It also records another 4,283.1 MW of **Gate 1** batteries in the T7 pipeline (including East Pye Solar's BESS) which did not meet the Gate 2 strategic-alignment or protection requirements and have not been given confirmed grid connections.

This means that currently in T7, Gate 2 battery capacity is already approximately 8.6 times the 200 MW regional capacity figure, because protected projects had to be allowed through notwithstanding the zonal limit. The likelihood of East Pye Solar's BESS ever receiving Gate 2 is remote – there is currently no mechanism by which it can secure a Gate 2 connection agreement (It is not LDES; 55GW of BESS projects are unlikely to drop out of the existing Gate 2 queue; NESO is unlikely to require an additional 55GW of BESS beyond the existing gate 2 queue – and these are the only mechanisms available according to Ofgem).

The Applicant's consumer-benefit case is similarly unproven. The Applicant asserts that East Pye Solar will not cause grid constraints or experience excessive curtailment, but BEPS identifies no disclosed Scheme-specific modelling showing generation profile, competing Gate 2 generation, relevant network constraints, reinforcement dates, BESS operating strategy or expected annual curtailment. Those are material omissions where the Scheme seeks positive weight for affordability and efficient system operation under EN-1.

Chapter 1 then applies those weaknesses to good design. The Scheme repeatedly deals with environmental constraints after the development envelope has been established: planting is used to screen landscape harm; habitat creation to address ecological disruption; later drainage to manage hydrological risk; revised haul routes to address highway objections; and later equipment selection or barriers to resolve noise. Those responses are not necessarily mutually compatible. A woodland screen may itself harm openness, heritage setting or ground-nesting-bird habitat; an internal haul route may avoid a highway problem while creating new ecological, soil, drainage or PRow effects.

The chapter therefore establishes the governing question for the whole Examination: whether the Applicant has demonstrated one environmentally coherent and deliverable scheme designed for this particular place, rather than a predetermined 500 MW project

whose separate environmental conflicts are expected to be reconciled later. The subsequent chapters demonstrate why that question has not yet been answered satisfactorily.

Chapter 2: EIA Methodology

Chapter 2 identifies a structural weakness in the Environmental Statement: environmental systems are divided into technical chapters before their interactions are adequately assessed.

The receiving environment does not operate in those compartments. Hedgerows are simultaneously landscape structure, ecological corridors, historic boundaries and elements affected by highway works. Heavy clay soil controls agricultural productivity, runoff, drainage and groundwater recharge. Piling is simultaneously a construction, noise, archaeological, groundwater and contamination issue. Lighting affects landscape, residential amenity, tranquillity, aviation and light-sensitive species. Those pathways require receptor-led reconciliation.

The baseline also remains incomplete in matters capable of affecting design. Chapter 2 identifies unresolved or late evidence concerning white-clawed crayfish, the functional extent of barbastelle maternity-colony habitat, botany and aquatic ecology. Generic significance matrices and professional judgment cannot cure an incompletely defined receptor.

The same problem arises from deferred mitigation. Protected-species surveys, licences, detailed lighting, drainage, foundation risk assessments, construction arrangements and other controls are repeatedly left to post-consent stages. Later information is legitimate where it refines an already demonstrated acceptable solution. It is materially different where the later work will determine whether an acceptable solution exists at all.

The consequence is that Chapters 6–18 cannot safely be treated as independent conclusions where they rely on inconsistent assumptions or unresolved inputs. Chapter 19 cannot repair an interaction which was omitted or understated in the chapter from which it should have originated.

Chapter 3: The Order Limits and the True Receiving Environment

Chapter 3 demonstrates that East Pye Solar is not proposed across generic agricultural land. The Order Limits encompass ten dispersed principal Sites, major electrical compounds, highway works and approximately 24 km of cable corridor within a landscape containing historic settlements, medieval churches, Listed farmsteads,

PRowS, ancient woodland, veteran trees, hedges, ponds, chalk-stream tributaries, private water supplies and productive agricultural land.

The ecological evidence is particularly important. The Applicant's own bat evidence later establishes a nationally important assemblage. Ancient woodland, County Wildlife Sites, Roadside Nature Reserves and hydrologically sensitive habitats occur throughout or immediately beside the development area. Norfolk Wildlife Trust's evidence characterises the area as 'dense with nature'. These characteristics are not conveyed adequately by describing receptors principally by distance from separate numbered Sites.

The same is true of water. Ditches, field drains, tributaries, Principal Aquifers and private water supplies form connected source–pathway–receptor systems which cross the artificial boundaries between Sites and ES chapters. Historic landscape character is similarly carried by the relationship between fields, lanes, churches, farmsteads, greens and settlements rather than by designation polygons alone.

The significance of Chapter 3 is therefore one of site selection. The density of constraints is itself evidence. A scheme requiring repeated buffers, route changes, habitat corridors, crossing methodologies, later licences, additional surveys and mitigation across its full extent is not development inserted into an environmentally simple location. Those constraints should have influenced the fundamental scale and location of the Scheme – requiring avoidance – before mitigation became necessary.

Chapter 4: Scheme Definition and Deliverability

Chapter 4 demonstrates that material uncertainty remains over what will actually be constructed. The DCO envelope permits up to three 132 kV Project Substations and three 400 kV Project Substations, a BESS, a new National Grid Substation, extensive 33–400 kV cabling and overhead-line works. At Site 1B, the Project Substation evolved from the approximately 7 m-high 132 kV installation presented during consultation, to a 400 kV installation initially described at approximately 13 m, and finally to an application envelope permitting a compound of up to 1.1 ha and structures reaching 15 m. The grid works may include up to four new pylons reaching approximately 61 m.

Those are material physical changes, not minor equipment refinements. They affect landscape, heritage, aviation, noise, drainage, groundwater, construction and abnormal-load requirements. Yet several associated maximum parameters remain unresolved or insufficiently reconciled across the ES.

The BESS is also not fixed by an equivalent confirmed connection status, capacity-duration relationship or long-term technology. The DCO must therefore be tested against solar-only operation, delayed BESS, reduced BESS and future replacement technologies rather than only against the promoted integrated case.

Most importantly, the Site 1B National Grid solution is not confirmed by NGET. The final size, design and location remain affected by wider connection reform and potentially by other projects. NGET does not expect the revised connection agreement to require East Pye Solar to secure the land or consent and expressly states that consent would not oblige it to use the proposed substation. The emergence of North Anglia Node A on the proposed Norwich–Tilbury transmission reinforcement further strengthens the need to test whether separate permanent transmission infrastructure at Great Moulton remains strategically justified.

Whole-life uncertainty is substantial. The Scheme permits complete panel replacement over a period of up to 24 months, up to five BESS replacement cycles, major transformer and electrical replacement, and a 60-year operating period. Some infrastructure, including the National Grid Substation and grid connection works, is intended or capable of remaining beyond solar decommissioning.

The Applicant's recent Examination material also changes the decommissioning position. It now states that private landowner agreements contain decommissioning securities intended to protect against default or insolvency and capable of periodic revaluation or top-up. The unresolved issue is whether a series of private, landowner-specific securities can secure the coordinated decommissioning and restoration of East Pye as one NSIP. It remains unclear who would organise Scheme-wide removal and restoration if the undertaker failed; whether every landholding benefits from equivalent protection; whether the securities cover soil, drainage and contamination remediation as well as equipment removal; whether they remain adequate where restoration costs materially exceed present estimates; and whether the public authority enforcing the DCO can access them. The Applicant should also clarify reported development-uplift or overage provisions in land agreements. Such provisions would not determine future planning use, but if they contemplate a non-agricultural future for the land, they must be reconciled with the DCO and ES case that the Scheme is temporary and that land not required permanently will be restored to agricultural use. The present arrangements therefore do not yet demonstrate a coherent, insolvency-resilient and enforceable whole-Scheme restoration mechanism.

The Rochdale Envelope cannot cure uncertainty over the essential identity of the project. It can accommodate detailed-design flexibility only within a defined and environmentally assessed maximum case. The ExA requires certainty that every realistically permitted implementation scenario remains within that case. Chapter 4 demonstrates that this has not yet been achieved.

Chapter 5: Reasonable Alternatives and Site Selection

Chapter 5 explains why so many constraints occur within the selected development area. The Applicant originally identified Norwich Main as the prospective point of connection, adopted a 20 km search radius around it and sought sufficient willing landowners to assemble the required land. Only afterwards did NGET advise that

Norwich Main lacked both the existing capacity and the ability to expand sufficiently for the proposed 500 MW project.

That should have caused the strategic basis of the land search to be revisited. Instead, the Applicant retained the assembled Sites and moved south along the transmission line in search of another connection. Great Moulton was selected in part because the previously identified Sites also lay within approximately 20 km and because willing landowners had already been secured. The WR records that potentially reasonable alternative connection areas, including Siting Zone 3, were treated as less preferable partly because they were further from that existing land package.

The process is therefore circular. Land was assembled around Norwich Main before Norwich Main was known to be viable. When it failed, the connection search was constrained by the desire to preserve that land. Proximity to the resulting connection was then relied upon to justify the original Sites.

The 500 MW scale was treated similarly. The Applicant defined the project objective by reference to the 500 MW connection and then discounted smaller schemes and the ‘do nothing’ case because they would not deliver the predetermined capacity. That does not demonstrate that 500 MW represents the environmentally appropriate scale for this landscape.

Nor was site selection ecologically led. The design history records repeated later adjustments for Spring Wood, ancient woodland buffers, Fritton Grange Meadows, habitat corridors and other constraints. Those are legitimate mitigation measures, but they demonstrate that ecology operated principally to modify development after the land package had been assembled, rather than to identify the least constrained landscape in the first place.

Chapter 5 therefore goes directly to proportionality. Where the specific regional necessity of East Pye is not demonstrated and the selected landscape generates extensive harm, a smaller scheme, materially different land configuration, alternative location or non-development scenario cannot be excluded simply because it fails to reproduce the Applicant’s original commercial project.

Chapter 6: Climate Change – the Headline Climate Benefit Is Not Reliably Calculated

The principal claimed benefit of East Pye is climate mitigation. That benefit must therefore be capable of independent verification. On the figures reproduced and tested in BEPS Chapter 6, it is not. The Applicant’s headline greenhouse-gas calculations are internally inconsistent, contain material arithmetic or unit discrepancies, omit relevant emissions and rely upon a lifetime counterfactual which assumes that the electricity displaced by East Pye Solar retains the carbon intensity of the 2031 grid for the following 60 years.

The first problem is basic reconciliation. The Applicant gives construction emissions of **347,673 tCO₂e**, operational emissions of **1,104,918 tCO₂e** and decommissioning emissions of **6,390 tCO₂e**. Those figures total **1,458,981 tCO₂e**. Against the Applicant's stated lifetime generation of **36.33 TWh**, that equates to approximately **40.16 gCO₂e/kWh**. The Applicant, however, reports a lifecycle intensity of **39.67 gCO₂e/kWh**. The operational emissions alone equate to approximately **30.41 gCO₂e/kWh**, not the **29.74 gCO₂e/kWh** reported. The principal intensity figures therefore cannot be reproduced from the Applicant's own stated emissions and generation totals.

The discrepancy becomes more serious in the claimed lifetime carbon saving. The Applicant applies a comparator of **65 gCO₂e/kWh** to **36.33 TWh** of lifetime generation. On those inputs, gross avoided emissions are: **36.33 billion kWh × 65 gCO₂e/kWh = 2,361,450 tCO₂e**.

Deducting the Applicant's stated whole-life emissions of **1,458,981 tCO₂e** leaves a net saving of only **902,469 tCO₂e**. The Applicant nevertheless reports a lifetime saving of **1,294,630 tCO₂e**. The difference is approximately **392,000 tCO₂e**. Even if only the stated operational emissions of **1,104,918 tCO₂e** were deducted—which would itself be an incomplete whole-life calculation—the result would be **1,256,532 tCO₂e**, still approximately **38,000 tCO₂e below** the Applicant's reported figure. BEPS has therefore been unable to identify a reproducible route from the Applicant's own headline inputs to its claimed principal climate benefit.

The underlying component calculations contain further discrepancies. The Applicant records **26,393 tonnes of glass** with an emissions factor of **1.4028 kgCO₂e/kg**, but reports only **1,371 tCO₂e**. Direct multiplication gives approximately **37,024 tCO₂e**. It records **9,973 mounting structures**, each weighing **800 kg**, with an emissions factor of **2.71 kgCO₂e/kg**, but reports **37,845 tCO₂e**; direct multiplication gives approximately **21,621 tCO₂e**. BEPS also identifies an apparent transposition in construction-worker journey distances, giving approximately **2,479 tCO₂e** when recalculated rather than the reported **2,192 tCO₂e**.

Other inputs are internally implausible or insufficiently explained. Chapter 6 records approximately **5,632 km of electrical cable** with a combined mass of only **569 tonnes**, while elsewhere giving principal cable material weights of **21 kg/m for copper and 10.7 kg/m for aluminium**. Those figures cannot all describe the same cable inventory without further explanation. The BESS calculation also refers to '80% degradation per year', which, read literally, is not credible and appears to confuse annual degradation with retained capacity. These are not immaterial typographical issues where they occur within the calculation used to establish the Scheme's principal environmental benefit.

There is then a separate methodological problem. The Applicant acknowledges that grid carbon intensity is expected to fall rapidly but applies the **2031 factor of 65 gCO₂e/kWh across the entire 60-year generation period**. Electricity generated in 2050, 2070 or 2090 is therefore treated as though it displaces electricity with the carbon intensity of the 2031 grid. BEPS's sensitivity testing, using the methodology relied on by campaigners at the Great North Road NSIP examination, demonstrates how decisive

that assumption is: using the Applicant's stated generation and emissions but allowing the grid factor to decline to 20 gCO₂e/kWh by 2050 produces an illustrative net adverse balance of approximately **447,000 tCO₂e**; a decline to 10 gCO₂e/kWh produces an illustrative adverse balance of approximately **747,000 tCO₂e**. Those sensitivity results are not advanced as the only correct forecasts. Their significance is that the Applicant's claimed beneficial outcome is highly dependent upon freezing the grid counterfactual at the opening-year value.

If the applicant's assumption is that the UK grid won't be decarbonised over the 60-year life of this project, then what is the benefit of all of the other NSIP solar proposals that IGP/Macquarie has put forward, claiming that they will decarbonise the grid? If these projects aren't going to be decarbonising the grid, there is no need for them. If they will be decarbonising the grid compared to the 2031 baseline, then the applicant's carbon calculations are wrong. When calculated against a decarbonising grid assumption, East Pye Solar is not beneficial to achieving Net Zero as the applicant claims, but actively harmful to the climate.

The Applicant's assessment is incomplete in other material respects. The BESS dominates the stated lifecycle emissions and is assumed to undergo repeated replacement, yet its future chemistry, charging source, cycling regime and parasitic cooling demand are not fixed. Full panel replacement, up to five BESS replacements and transformer replacement are included without a transparent activity and logistics schedule for each replacement cycle. Land-use change and soil carbon are not properly quantified despite EN-1 requiring whole-life GHG assessment to include land-use effects. Extensive ancillary infrastructure and operational loads are omitted on assumptions of individual immateriality without demonstrating that the aggregate exclusions remain below the stated threshold. The water assessment identifies **16,871 m³ of construction water and 309,196 m³ of operational water**, but the climate calculation does not include the foreseeable transport emissions if an off-site tankered supply is required.

These defects are material because climate benefit is one of the principal matters relied upon to outweigh East Pye Solar's admitted environmental harms. The Examination should not assign substantial positive weight to a carbon saving which cannot be reproduced from the Applicant's own figures. At minimum, the Applicant must disclose the complete calculation workbook, formulas, source data and quality-assurance record; reconcile every headline total; correct the identified arithmetic and unit discrepancies; undertake year-by-year declining-grid sensitivity analysis; and recalculate whole-life emissions including land-use change, replacement, parasitic demand, excluded infrastructure, water supply and realistic curtailment.

Until that exercise is completed, the Applicant has not established the magnitude– or even the robustness of the direction – of the whole-life climate benefit relied upon in the planning balance. Where the principal claimed benefit cannot be reconciled mathematically from the Applicant's own stated inputs, it cannot safely be treated as a counterweight to the substantial and demonstrable harms

identified elsewhere in the Environmental Statement and in this Written Representation.

Chapter 7: Landscape and Visual Effects

Landscape harm is not hypothetical; it is admitted by the Applicant. The LVIA identifies Major Significant construction effects at, among other receptors, Site 1, the BESS, Site 7, Site 8 and important Landscape Character Areas. At Site 1 the Applicant identifies Major Significant effects during construction, at Year 1 and still at Year 15. It expressly describes a ‘total change’ to key landscape characteristics. The BESS remains Moderate Significant at Year 15; Sites 7 and 8 and B1 Tas Tributary Farmland and E2 Great Moulton Plateau Farmland also retain significant effects.

Individual receptors confirm the severity. Views south-east of Great Moulton remain Major to Substantial and Significant at Year 1. Significant effects remain from Great Moulton and surrounding PRowWs at Year 15 because the National Grid and Project Substations continue to influence the view. At 22 Hillcrest Court, upper-floor effects are Major to Substantial Adverse and Significant at Year 1 and remain Moderate Adverse and Significant at Year 15. Oakdene Cottage experiences a Major Adverse and Significant first-floor effect at Year 1.

The development consists of moving tracker arrays up to 4.5 m high, together with substations, BESS, fencing, CCTV, tracks and transmission infrastructure. Chapter 7 itself acknowledges the transformation from agricultural land to an ‘energy production landscape’.

The mitigation case does not remove that conflict. In the Great Moulton Plateau, openness and expansive sky are defining landscape characteristics. New woodland may conceal industrial infrastructure, but it does so by removing the openness which defines the landscape. At several receptors the Applicant itself identifies continuing effects because mitigation planting changes the character of open views. Screening and preservation are therefore not equivalent.

The night-time assessment is also incomplete. The Lighting Strategy confirms operational lighting at major compounds and column-mounted lighting around the BESS, yet Chapter 7 contains no substantive assessment of the significance of night-time landscape effects despite the Inspectorate having required consideration of intermittent and motion-activated lighting.

The photomontage evidence requires similar caution where summer foliage provides maximum screening. That is particularly important around Grade I St Catherine’s Church at Fritton. The existence of a separate winter baseline photograph does not show how the development itself appears in leaf-off conditions.

Independent professional LVIAs commissioned on behalf of the South Norfolk community will be submitted by Hempnall Parish Council and Shotesham Parish

Council and together cover the complete Scheme. BEPS supports their conclusions. They are deliberately not duplicated within this Written Representation.

The Chapter 7 evidence therefore establishes a substantial and enduring adverse effect which exists even before the wider methodological objections are applied.

Chapter 8: Ecology and Biodiversity

The ecological case is materially more serious than a conventional solar-farm habitat assessment. The Applicant's own Bat Activity Survey scores the bat assemblage at 22 out of a possible regional 28, or 78%, above its 70% threshold for national importance. Eleven bat species were recorded. Barbastelle was recorded at every static detector and was the third most frequently recorded species, with 11,699 passes and a reported mean activity index of 23.12 passes per hour. The Order Limits therefore form part of a landscape used extensively by a nationally important bat assemblage rather than merely containing isolated hedgerow flight lines.

The maternity-colony evidence is particularly important. Multiple barbastelle Core Sustenance Zones overlap the entire Scheme. Independent 2025 work by the Barbastelle Study Group at Little Wood confirmed a maternity colony through licensed radiotracking, with an emergence count of approximately 36 bats pre-parturition and an estimated larger post-parturition colony. Further colonies are predicted or unresolved at additional woods. The Norfolk Barbastelle Study Group calls for further radiotracking and woodland survey because acoustic data alone cannot establish the full commuting, foraging and alternative-roost network.

The woodland and tree resource compounds the sensitivity. Six ancient woodlands directly adjoin the Scheme, several of them SSSIs. The South Norfolk Tree Warden evidence identifies approximately 621 trees with potential roost features. Repeated access openings, hedgerow gaps, lighting, fencing, traffic, root disturbance and construction therefore affect a functional network, not simply the area of habitat physically removed.

The ecological baseline remains incomplete elsewhere. There has been no full-season botanical survey even though specialist evidence from a level 6 Botanist familiar with the area identified the need for one due to vanishingly rare assemblages of important botany within and surrounding the order limits. The least-surveyed habitats – roadside verges, historic lanes, hedgebanks, margins and ditch edges – are precisely those exposed to proposed access and highway works. The aquatic appraisal was habitat-led and affected by unusually dry conditions.

The white-clawed crayfish evidence illustrates the consequence of that baseline weakness. The Applicant's desk study did not identify records within its selected search area, yet the evidence before the Examination includes an Environment Agency record from 2020, two juveniles recorded by Norfolk Rivers Trust in October 2020, three animals recorded by hand survey/eDNA work in 2021 and further confirmation in 2022

at Saxlingham Thorpe, within 2km of the order limits. That is evidence of an extant breeding River Tas population in a hydrologically connected system.

BNG cannot resolve those issues. Habitat units do not determine whether a European Protected Species licence can satisfy the ‘no satisfactory alternative’ and favourable-conservation-status tests; they do not reproduce ancient woodland; and they do not establish that a maternity-colony network, crayfish population or rare botanical assemblage remains functional.

The ecological objection is therefore an avoidance case. The Applicant has established national ecological importance while leaving material uncertainty about the functional use of the very landscape it proposes to industrialise. That uncertainty cannot rationally be used to support a lesser finding of harm.

Chapter 9: Water Environment

The water case is one of the most important unresolved technical constraints. The Scheme crosses the River Tas/Hempnall Beck system, Starston Brook, Broome Beck and an extensive network of ordinary watercourses, field drains and groundwater pathways. These are not isolated surface-water features. They are hydrologically and hydrogeologically connected to the River Tas and River Waveney chalk-stream systems and to the underlying Principal Aquifer, while the Applicant’s own scoping material records groundwater as being in broad continuity with watercourse levels. The relevant receptor is therefore a single interconnected surface-water and groundwater system in which disturbance, sediment, pollution, dewatering or the creation of preferential pathways at one location may be transmitted beyond the immediate development parcel to downstream chalk-stream receptors, groundwater-dependent habitats and private or public abstractions. The assessment cannot safely treat individual ditches, crossings, Sites or aquifer receptors as discrete systems where the evidence demonstrates direct connectivity between them.

At scoping, the Environment Agency identified 35 private water supplies within 250 m for which accurate locations and/or abstraction strata were unavailable. It required impacts to be assessed according to actual influencing distance rather than an arbitrary buffer and subsequently required a wider search because of Principal Aquifer conditions. Six licensed groundwater abstractions occur within 1 km, including a public-water-supply borehole whose Source Protection Zone extends into the Scheme area.

The independent H Fraser Consulting review (‘HFCL’) identifies 15 numbered technical deficiencies concerning the conceptual hydrogeological model, WFD assessment, water resources, private supplies, GWDTEs, firewater, foundations and other pathways. Its conclusion is a ‘significant lack of confidence’ that impacts upon the water environment are properly understood or capable of mitigation. That conclusion directly challenges Chapter 9’s repeated negligible/minor residual findings.

The WFD assessment is also contested. HFCL concludes that screening out three surface-water bodies and one groundwater body is not appropriate where development occurs within their catchments and connecting ditches and water features provide pathways. Broome Beck illustrates the problem: Sites and CRCs lie within its WFD catchment and field drains connect towards it, but the waterbody is screened out principally on the assumption that trenchless crossing avoids direct physical disturbance. That does not address sediment, construction runoff, drainage alteration, dewatering, fuel or oil release and other catchment pathways.

Site 1 and Site 5 concentrate the risk. Site 1 combines BESS, 400 kV infrastructure, hardstanding, transformers, drainage, firewater and sensitive groundwater within the Starston Brook catchment. Site 5 lies within and is directly connected by ditches and a culvert to the River Tas-connected system, with private water supplies, major electrical infrastructure and the ecological sensitivity evidenced by white-clawed crayfish.

HFCL's findings make this a gateway issue for consent, not a matter capable of being left to routine post-consent drainage design. Its review does not identify a handful of minor omissions; it identifies 15 substantive deficiencies affecting the conceptual hydrogeological model, identification of receptors and pathways, private water supplies, groundwater-dependent terrestrial ecosystems, WFD screening, foundations and piling, firewater, water resources and the interaction between surface water and groundwater. Those matters determine whether the Applicant has correctly identified what may be affected, how an effect could be transmitted and whether the proposed mitigation could actually prevent it. HFCL's conclusion of a 'significant lack of confidence' that impacts on the water environment are properly understood or capable of mitigation therefore strikes at the foundation of Chapter 9's repeated Negligible or Minor residual-effect conclusions. Where the underlying hydrogeological model, the drinking-water receptors and the WFD pathways remain materially uncertain, those conclusions are not evidentially secure and cannot simply be converted into certainty through later CEMPs, drainage details, foundation risk assessments or construction method statements. Before any positive recommendation could properly be made, the Applicant would need to demonstrate, on a revised and technically coherent evidence base, the full surface-water-groundwater connectivity, the complete private-water-supply receptor network, compliant WFD screening and assessment, and the acceptability of piling, foundations, dewatering, firewater and other pollutant pathways. Unless those matters are resolved during Examination, the ExA cannot safely conclude that significant effects on the water environment have been identified and can be prevented, or that WFD deterioration and risks to public and private water supplies have been excluded. On the present evidence, the water-environment case is not merely incomplete: it is insufficiently reliable to support development consent.

Chapter 10: Cultural Heritage

The divergence between the Applicant and independent heritage evidence is substantial and quantifiable. The Applicant's own Heritage Statement carries forward one Scheduled Monument, two Grade I listed buildings, two Grade II* listed buildings, 42 Grade II listed buildings and four Conservation Areas. It ultimately identifies heritage

harm to only two designated assets - Moulton Farmhouse and Barn Cottages - both at the lower end of less-than-substantial harm.

David Edleston's independent Heritage Impact Assessment identifies less-than-substantial harm to 36 designated assets: 32 listed buildings and four Conservation Areas. The disagreement is not confined to minor assets. It includes moderate harm to Grade I St Michael's Church, Grade II* Old Rectory and Oaks Farmhouse, and moderate-to-high less-than-substantial harm to Grade I St Catherine's Church at Fritton.

The reason for the difference is methodologically important. The Applicant relies heavily on distance, absence of direct intervisibility, retained foreground fields and eventual screening. The independent assessment places greater weight on the contribution made by open agricultural setting, isolation, approaches, historic land relationships, group value and the experience of buildings within an agricultural landscape.

Barn Cottages provides a clear example. The Applicant accepts lower-end harm but says that it falls away when woodland screening matures; its own estimate is that adequate screening may take approximately 30 years. The independent assessment identifies moderate harm because the BESS and substation introduce industrial development into the open rural setting and the screening itself changes that setting.

Archaeological uncertainty remains as well. The Cable Route Corridor was not fully subject to geophysical survey and trial trenching because the route was not finalised. Historic England confirms that parts of the Order Limits remain incompletely evaluated and that previously unidentified remains potentially equivalent in significance to designated assets may still be found. It also identifies cumulative interaction with Tasway Energy Park as an examination issue and accepts that residual policy harm will remain.

The Applicant's conclusion of essentially no residual heritage effect is therefore not supported by the full body of evidence before the Examination.

Chapter 11: Transport, Access and Constructability

Chapter 11 presents another gateway issue: East Pye Solar cannot be built unless a physically available, environmentally assessed and highway-authority-acceptable access system exists.

Norfolk County Council's June 2026 Relevant Representation states expressly that the submitted strategy for Sites 7–10 does not adequately address the highway constraints, does not provide sufficient mitigation and 'cannot be supported'. For Sites 7–9 it requires access through CRC8 west of Hempnall and internal haul roads or cable-corridor connections. For Sites 10A–10D it requires a common Harvey Lane access with internal connections, and Site 10E through CRC14. That is materially different from the public-road strategy assessed by the Applicant.

The history demonstrates that this is not a minor CTMP matter. NCC rejected construction traffic on Hall Lane and regarded Fairstead Lane as inappropriate, yet Hall Lane remains within later routeing and AIL proposals. Fairstead Lane, The Krons and other routes have repeatedly changed. If the NCC solution requires new internal routes, land, watercourse crossings, PRow crossings, tree loss or drainage works, those consequences themselves require assessment.

The Applicant identifies 65 construction access and crossing points. Many relevant roads are single-track, constrained by vegetation, bridges, limited passing places, residential frontage or schools. The Transport Assessment records construction traffic increases of 116% on Fairstead Lane, 58% on Shotesham Road, 45% on Bussey's Loke and 48% on Market Lane. Low existing flows do not establish low sensitivity where the roads are physically narrow and used by pedestrians, cyclists and equestrians.

The mitigation package itself demonstrates the constraint: holding areas, call-forward systems, one-HGV-at-a-time release, marshals, signals, passing places, speed restrictions and compressed delivery windows. Those measures may manage a workable route; they do not prove that the route is physically or programmatically capable of delivering the Scheme.

Abnormal indivisible loads remain independently unresolved. There is no final port of entry, final SRN route or final local route for all major equipment. National Highways maintains a formal objection, requiring further work on the A47/A140 junction, cumulative construction traffic, worker travel, traffic caps, AIL routing and Requirement 15, and states that it cannot remove its objection unless the matters are resolved before recommendation.

Transport is therefore not merely an adverse effect capable of later management. The Applicant has not yet demonstrated an end-to-end construction system which both highway authorities accept and which has been environmentally assessed.

Chapter 12: Noise and Vibration

The Applicant's own modelling identifies serious effects which are subsequently downgraded largely by reference to duration or future mitigation. For HDD, 15 night-time receptors are predicted above SOAEL, with effects extending to Major Adverse. Dwellings at Lundy Green, Market Lane Farm, Thetford Farm House, Dawsons Farm and Wash Lane are among those identified. Chapter 12 nevertheless concludes that the effects are not significant because HDD at each location is expected to be short-lived. That confuses EIA duration with the separate policy significance of an effect which the Applicant itself characterises as 'present and disruptive' and capable of sleep disturbance.

The rural acoustic baseline is exceptionally low: night and early-morning levels are frequently in the high teens or low 20s dB LA90. Seven operational receptors are initially predicted at approximately +6 to +8 dB above background in the early-morning period.

Those effects are removed in the later modelling by applying additional inverter mitigation rather than by demonstrating that the submitted design is inherently quiet.

Mitigation is extensive and fundamental to the Applicant's case. It includes 4 m acoustic barriers around the BESS, reduced fan duty, quieter equipment selection, plant orientation, attenuators and acoustic enclosures. Those measures are not precautionary refinements to an inherently acceptable design: they are required because the unmitigated development produces materially worse effects in an exceptionally quiet rural environment. The Applicant's own scoping work acknowledged that final equipment selection would not occur until after the DCO decision and that operational assessment would therefore initially rely on comparable library plant. The environmental acceptability of the BESS and associated electrical infrastructure is consequently dependent upon a future combination of equipment specification, operational restriction and substantial physical screening which has not yet been demonstrated for the final plant.

That dependence on mitigation is itself relevant to siting. A BESS or substation which requires 4 m acoustic barriers, restricted cooling operation, careful orientation, quieter plant, attenuators and enclosures in order to approach acceptable noise conditions is not infrastructure which the receiving acoustic environment readily accommodates. The baseline here is not an urban or industrial soundscape in which additional plant noise can be readily masked; night and early-morning background levels are frequently only in the high teens or low 20s dB LA90. In that context, the scale of intervention required to suppress operational sound is evidence of an inherent conflict between major continuously operating electrical infrastructure and its chosen rural location. Good design should first avoid creating the conflict; it should not depend upon progressively enclosing and attenuating an intrinsically noisy installation after the location has been selected.

The construction case is still more serious because mitigation does not remove the admitted effect. Fifteen night-time receptors are predicted above SOAEL during HDD, with effects extending to Major Adverse and including identified dwellings at Lundy Green, Market Lane Farm, Thetford Farm House, Dawsons Farm and Wash Lane. The Applicant does not demonstrate that those noise levels are rendered acceptable by mitigation; instead, it relies principally upon the anticipated duration of HDD at each location to conclude that the resulting EIA effect is not significant. The physical noise exposure therefore remains: the assessment simply changes its significance classification because it is expected to occur for a limited period. Where the Applicant itself identifies night-time noise above SOAEL—an effect characterised as 'present and disruptive' and capable of causing sleep disturbance—the fact that residents may experience it for a shorter period does not demonstrate that the location or construction methodology is environmentally acceptable.

There is also unresolved uncertainty even in the mitigated operational case. South Norfolk Council's independent acoustic review questions source geometry, frequency-dependent modelling, point-source assumptions, barrier performance and whether the complete National Grid plant inventory has been included. The Applicant has not

disclosed the source spectra necessary to verify the low-frequency assessment and applies no BS 4142 acoustic-character correction for tonality or distinctiveness. In a rural soundscape of this quietness, those omissions are material because transformer hum, inverter tones and fan noise may be considerably more perceptible than an equivalent level of non-distinctive sound.

The proper conclusion is therefore stronger than that the Applicant should secure better noise controls. The evidence shows a development which is acoustically dependent upon substantial engineered mitigation simply to reduce operational effects, while construction still produces night-time SOAEL exceedances and Major Adverse effects at numerous homes. That combination is evidence of a fundamental incompatibility between the proposed infrastructure and the acoustic environment in which it has been placed. It is too close to homes and areas of ecological sensitivity.

Where major electrical infrastructure requires extensive barriers, restricted operating regimes and future equipment selection to approach acceptability, and significant disruptive construction noise remains even after mitigation assumptions are applied, the Applicant has not demonstrated that the development can be accommodated at this location without unacceptable effects. Chapter 12 therefore weighs materially against consent and reinforces the wider conclusion that the Scheme has been fitted into a location which lacks the environmental capacity to accommodate it.

Chapter 13: Air Quality

The Applicant has not produced a sufficiently representative or receptor-specific evidential basis for concluding that construction and decommissioning effects will be negligible or not significant across a geographically dispersed rural NSIP.

The first weakness is the baseline. The Applicant undertook no Scheme-specific monitoring and states that existing data are sufficient. Yet seven of the eight diffusion-tube locations relied upon are in the traffic-heavy town of Long Stratton on the A140, and the only continuous indicative monitor used for NO₂, PM₁₀ and PM_{2.5} is also beside the A140 in Long Stratton. Most of East Pye would instead be constructed across low-traffic countryside, villages, hamlets and minor rural roads. The Applicant's own figures demonstrate the mismatch: the 2024 annual mean NO₂ concentration at the selected A140 roadside monitor was 23.7 µg/m³, while DEFRA-modelled backgrounds across much of the Order Limits are only approximately 5.4–6.3 µg/m³. The measured and modelled environments are therefore materially different.

The Long Stratton evidence also has temporal limitations. Much of the diffusion-tube dataset predates completion of the bypass and therefore reflects the town's former A140 through-traffic environment. The Zephyr monitor commenced only in August 2024; its 2024 dataset had 40% capture, and the 2025 data are not separated into pre- and post-bypass periods. The Applicant consequently has no measured validation of the much lower background concentrations assumed at the rural receptors most exposed to new construction traffic.

That deficiency matters because Chapter 13 relies heavily on the EPUK/IAQM traffic screening criteria rather than receptor-specific dispersion modelling. The Applicant's own Appendix describes the thresholds of 500 LDV AADT and 100 HDV AADT outside an AQMA as indicative criteria for deciding whether detailed assessment should be undertaken. Yet where Scheme traffic remains below those thresholds, Chapter 13 simply accepts the resulting pollutant change as less than 0.5% of the relevant objective and therefore negligible. No receptor-specific NO₂, PM₁₀ or PM_{2.5} concentration is calculated.

The cumulative assessment exposes the weakness more clearly. 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. Those HDV increases are more than eight times the Applicant's own 100-HDV screening threshold. Chapter 13 expressly acknowledges that the criteria are exceeded on all three links, but still undertakes no quantitative dispersion modelling.

Instead, the Applicant concludes that cumulative effects are not significant because East Pye Solar contributes only part of the total traffic, historic Long Stratton monitoring remains below statutory objectives, future vehicle emissions are expected to improve, construction is temporary and traffic will be managed through the CTMP. That creates an internal methodological inconsistency: below the screening thresholds, the effect is declared negligible without modelling; substantially above the thresholds, modelling is still not undertaken and qualitative reasoning is substituted instead. The screening methodology therefore appears incapable of triggering the detailed assessment it was designed to identify.

Construction dust is similarly dependent upon mitigation rather than demonstrated low inherent risk. Chapter 13 identifies earthworks, construction and trackout as presenting a 'high risk' of dust impacts—the highest IAQM risk category—but then scopes the pathway out because CEMP, OEMP and DEMP measures are assumed to reduce the effects to not significant. That approach is only as robust as the controls on which it depends. For a Scheme involving numerous Sites, cable routes, compounds, haul roads and extensive soil disturbance, the Examination should therefore scrutinise the secured monitoring locations, PM₁₀ and PM_{2.5} controls, trigger levels, intervention requirements, trackout measures, dry-weather controls and enforcement arrangements rather than treating the existence of an outline management plan as sufficient.

This has an ecological dimension as well as a human-health one. Natural England identified SSSIs including Sexton Wood, Flordon Common, Hedenham Wood and Tindall Wood as potentially sensitive to construction traffic and dust, while Norfolk Wildlife Trust also identified construction-related air-quality effects on habitats and species. Those receptors require the mitigation relied upon to be effective and enforceable.

PM_{2.5} requires particular caution. UKHSA advised that particulate matter and nitrogen oxides are non-threshold pollutants and that health benefits arise from reducing

exposure even below statutory standards. NCC Public Health likewise advised that vulnerable populations should be considered within the construction-dust assessment. Chapter 13 acknowledges DEFRA's PM_{2.5} interim target of 10 µg/m³ and its planning guidance, but its assessment remains focused principally on compliance and screening thresholds. In a rural area where modelled background PM_{2.5} is generally only around 5.6–6.2 µg/m³, the relevant question is not simply whether the statutory limit is exceeded but whether avoidable additional exposure has been minimised.

Other emission pathways remain similarly conditional or deferred. PINS agreed to scope NRMM emissions out only if the ES supplied sufficient information on machinery type, number, location and operating hours; Chapter 13 does not clearly demonstrate where all four elements have been provided. More significantly, PINS originally allowed operational combustion emissions to be scoped out because the Applicant stated that no combustion plant was proposed. The final Scheme now allows a backup diesel generator of up to 500 kVA at the National Grid substation. Its specification and emissions are not fixed, yet Chapter 13 declares the effect not significant on the basis of expected infrequent operation, distance to receptors and possible later mitigation such as stack-height increase or SCR. The factual premise on which the original scope-out was granted has therefore changed.

Replacement activity is also treated largely by assumption. Solar panels may be replaced extensively and BESS components repeatedly during the 60-year operational period, yet traffic and dust from those phases are screened out on the basis that they are expected to remain below generic thresholds. A transparent maximum replacement scenario has not been provided.

The decommissioning assessment is more assumption-dependent still. PINS expressly refused to allow decommissioning air-quality effects simply to be scoped out. The final ES nevertheless assumes that decommissioning traffic will not exceed construction traffic, that the duration will be similar, that background concentrations will fall, that future vehicles and machinery will be cleaner and that significant below-ground and grid infrastructure will remain in situ. Dust is treated on the basis that because construction already falls within the maximum IAQM 'high risk' category, decommissioning 'can be no worse'. None of that constitutes a quantified decommissioning scenario.

The air-quality objection is therefore not that BEPS has proved exceedance of statutory NO₂, PM₁₀ or PM_{2.5} objectives. It is that Chapter 13 has not demonstrated with sufficient evidential robustness that effects are negligible or not significant at the receptors actually affected.

The weaknesses are cumulative: the measured baseline is concentrated in a materially different Long Stratton traffic environment; the rural baseline remains unvalidated; sub-threshold traffic is automatically translated into negligible effects without dispersion modelling; cumulative traffic substantially exceeds the Applicant's own screening thresholds without triggering quantitative assessment; high-risk dust effects depend

upon future management; a new diesel generator is assessed without a defined emissions specification; and decommissioning conclusions rest on assumptions extending approximately six decades into the future.

The Applicant's 'not significant' conclusion therefore deserves limited weight unless it is supported during Examination by a representative rural baseline, receptor-specific dispersion modelling where its own screening thresholds are exceeded, clearly secured dust and PM2.5 controls, a defined assessment of the backup generator and a quantified worst-case envelope for replacement and decommissioning.

Chapter 14: Socio-Economics

Chapter 14 materially overstates the certainty of the Scheme's economic benefits while failing to establish an adequate baseline for the local businesses potentially exposed to adverse effects. This is not a minor omission. South Norfolk Council expressly required the socio-economic assessment to address effects and disruption to local businesses during both construction and operation, together with cumulative effects arising from other major infrastructure. It specifically identified South Norfolk's market towns, historic churches, the Waveney Valley, Boudicca Way, museums, walking and cycling routes, accommodation and visitor venues as forming a substantial tourism and visitor economy requiring assessment. The final BEPS Written Representation accordingly identifies the narrow tourism assessment, inadequate treatment of local businesses, fragmented rural-economy analysis and absence of adequate cumulative assessment as distinct defects in Chapter 14.

The most basic deficiency is that the Applicant has not established the local-business receptor. It does not identify and quantify the businesses within the affected villages and rural area which may be exposed to construction traffic, access restrictions, noise, landscape change, PRow disruption or the long-term industrialisation of the countryside. There is no sufficiently resolved business baseline showing the number, location, type, dependency or sensitivity of potentially affected enterprises. Without that information, there is no evidential basis for concluding that adverse business effects will be negligible or not significant. Suffolk and Mid Suffolk's scoping evidence specifically required a proper baseline, identification of businesses capable of participating in the local supply chain, phase-specific analysis and evidence-led assessment of both positive and negative socio-economic effects. They considered the Applicant's original methodology insufficient and required 'a complete revision'.

This deficiency is particularly serious because the local economy is not confined to conventional retail premises. A substantial part of South Norfolk's economic offer depends upon the qualities of the place itself: rural landscape, tranquillity, historic villages and churches, walking and cycling routes, wildlife, countryside recreation and visitor accommodation. South Norfolk Council expressly identifies this combination as a 'rich tourism/visitor offer'. Businesses whose trade depends directly or indirectly upon those qualities may include accommodation providers, hospitality businesses, rural visitor attractions, leisure and recreational enterprises and other businesses

whose customers come to experience the countryside. The Applicant cannot assess their vulnerability merely by counting hotel rooms or considering whether construction workers might spend money in local shops.

The original scoping approach illustrates the problem. The Applicant assumed that adverse effects on shops would not arise, treated the small operational workforce as producing only a minor benefit, and redirected wider amenity effects to the landscape, transport and noise chapters rather than considering their economic consequences. That fragmentation is precisely what prevents a proper socio-economic assessment. A landscape effect may simultaneously be a tourism effect; a PRoW closure may affect recreational use and the businesses serving it; construction traffic may discourage visitors or impede access; noise may affect accommodation or leisure premises; and the cumulative industrialisation of the countryside may alter the attractiveness of the area over the whole operational life of the Scheme. Those economic consequences do not disappear because their physical causes are assessed in another ES chapter.

The temporal scope is also too narrow. The potential effect on local businesses is not confined to the construction phase. East Pye is proposed for up to 60 years. The Applicant's own landscape assessment accepts substantial and, in places, continuing Significant landscape change. The transport and PRoW chapters identify recurring disruption during construction, replacement and decommissioning. The heritage assessment identifies changes to historic rural settings. The socio-economic assessment should therefore examine whether businesses dependent upon landscape quality, rural recreation, heritage, tranquillity, walking, cycling, nature and the broader visitor economy may suffer a long-term change in demand or competitiveness. South Norfolk Council expressly required business effects to be assessed during operation as well as construction. The failure to quantify the businesses at risk means that this question has never been answered.

The asymmetry with the Applicant's treatment of benefits is striking. Construction employment is modelled numerically, with an average and peak workforce, indirect employment and claimed net job creation. Yet adverse impacts on existing businesses are not subjected to an equivalent exercise. There is no count of potentially affected enterprises, no estimate of employment supported by them, no assessment of turnover exposure, no visitor-behaviour evidence, no business survey, no analysis of sensitivity to landscape or access change and no quantified estimate of possible displacement. The positive case is therefore expressed in numbers while the negative local-economic case is largely removed by assumption.

Even the claimed benefits are uncertain. The Applicant forecasts a substantial temporary construction workforce, but the proportion of jobs actually accessible to South Norfolk residents remains limited and unverified. The Outline Employment, Skills and Supply Chain Strategy contains no binding local-employment percentage or secured local procurement outcome. Suffolk County Council specifically required phase-specific workforce and supply-chain evidence and probability-based analysis because gross job creation does not establish local net benefit. The result is that the

Applicant seeks positive weight for economic benefits that are temporary and incompletely secured while failing to quantify the existing businesses which may bear the adverse consequences.

Temporary accommodation compounds the problem. A large externally sourced workforce may increase demand for hotels, B&Bs, holiday lets and private rentals, but contractor occupation is not necessarily equivalent to tourism benefit. It may displace leisure visitors during peak periods, alter accommodation availability and change the customer base on which associated hospitality and visitor businesses depend. Earlier BEPS analysis identified the absence of visitor or business surveys, visitor-behaviour analysis, tourism-specific stakeholder evidence and assessment of booking displacement or seasonal effects.

The cumulative position is equally material. South Norfolk Council has expressly warned that the concentration of NSIP solar, grid and other major infrastructure may create economic consequences for local businesses and tourism, with overlapping construction periods worsening the effect. A rural business dependent upon visitors does not experience East Pye, Norwich to Tilbury and other infrastructure projects as separate planning files; it experiences the combined change in traffic, landscape, tranquillity, accessibility and visitor perception.

The proper conclusion is therefore substantially stronger than that Chapter 14 merely reduces the weight to be given to claimed economic benefits. The Applicant has not established the adverse side of the socio-economic balance at all. It has not identified the full population of potentially affected local businesses, quantified their economic contribution, established which depend upon tourism, countryside, heritage, recreation or environmental quality, or assessed how 60 years of landscape industrialisation and recurring construction-related disturbance may affect their viability. In the absence of that baseline, a finding of negligible or non-significant local-business harm is not an assessment conclusion; it is an unsupported assumption.

That omission is material to the overall planning balance. The Scheme's claimed employment benefits are temporary, substantially dependent on non-local labour and not secured at the level claimed, while the potential adverse effects fall upon existing South Norfolk businesses embedded in the rural economy and may persist throughout the operational life of the Scheme. The ExA cannot properly weigh speculative construction benefits against adverse economic effects which the Applicant has never quantified. **Until the local-business and tourism economy has been identified and assessed as a receptor in its own right—including long-term operational, cumulative and cross-topic effects—the Applicant has not demonstrated that East Pye would produce a net socio-economic benefit or even that its adverse local economic effects are not significant. Chapter 14 therefore represents a substantive gap in the case for consent, not merely a reason to reduce the weight given to one claimed benefit.**

Chapter 15: Soils and Agriculture

The agricultural impact is substantially greater than generic references to a ‘temporary’ solar use imply. The detailed surveys identify 397.4 ha of Grade 2 and 431.7 ha of Grade 3a land: 829.1 ha of surveyed Best and Most Versatile agricultural land. Work No. 1 alone contains approximately 470 ha of BMV land, while approximately 158.9 ha of the Cable Route Corridor remains unsurveyed. The WR also records up to 28.9 ha of permanent BMV loss, rising to 37.9 ha when relevant mitigation planting is included, with that worst-case loss itself treated as significant.

The central methodological defect is that reversibility is assumed rather than demonstrated. This is particularly serious because the soils are not inherently robust, freely draining soils. The Applicant’s own baseline identifies predominantly Beccles 1 soils comprising ‘slowly permeable, seasonally waterlogged fine loamy over clayey soils’. Across Sites 1, 2 and 8, topsoils are predominantly clay or clay loam over clay or clay-loam subsoils; across Sites 3, 4, 5, 6 and 7 the subsoils are described as generally poorly structured and slowly permeable. The same scoping material nevertheless asserted that these soils are ‘generally resilient to being handled’ and that adverse effects at decommissioning would be capable of rectification using ‘normal agricultural land management machinery’. That assertion requires evidence. It cannot safely be treated as a soil-science fact.

The Welsh Government’s 2023 Soils Policy Evidence Programme: *The Impact of Solar Photovoltaic Sites on Agricultural Soils and Land Quality* provides directly relevant technical evidence. Although Welsh planning policy is not determinative in England, the underlying soil-science evidence concerns the same Agricultural Land Classification system and the physical behaviour of agricultural soils under solar development. Its review concludes that soil texture materially affects resilience: light-textured soils have greater resilience to structural damage, whereas heavy soils containing more than 27% clay have ‘low resilience to damage’; trafficking or handling them in unsuitable conditions can readily damage soil structure. That finding is directly relevant to East Pye’s clay and clay-loam, slowly permeable and seasonally waterlogged soil resource.

More importantly, the Welsh Government evidence demonstrates that restoration to the original BMV grade cannot simply be presumed. It records that knowledge of natural recovery from compaction remains ‘partial and incomplete’. It also records the MAFF ALC guidance that significant compaction below 35 cm may be ‘difficult or impossible to ameliorate practically or economically’ and therefore constitutes a long-term limitation.

The Welsh Government’s modelling demonstrates the potential agricultural consequence in ALC terms. Where compaction creates an introduced slowly permeable layer, pre-development BMV land can remain downgraded at decommissioning. Its scenarios include Grade 3a becoming Grade 3b, Grade 2 becoming Grade 3b and, in more severe wetness conditions, Grade 3a becoming Grade 4. The report concludes that unremediated compaction can lead to gleying and a new

slowly permeable layer, with consequent loss of BMV land or loss of its versatility; it also finds that compaction can reduce plant-available water and, in severe cases, restrict root penetration sufficiently to cause downgrading by more than one ALC grade.

That evidence is particularly important because East Pye is not exposed to a single construction event. The soil resource may be subjected successively to initial construction traffic, piling, trenching, haul roads, compounds and cable installation; operational maintenance and mowing; complete or extensive panel replacement; repeated BESS and electrical-infrastructure replacement; and finally decommissioning and restoration. The Applicant therefore needs to demonstrate recovery not from one carefully controlled intervention, but from a sequence of disturbance over a whole 60-year period.

The Welsh Government evidence expressly identifies machinery trafficking as a key determinant of compaction and warns that remediation success depends on soil strength, moisture content and depth of damage. It also concludes that soil compaction from machinery can have a residual effect on land, and that compaction and soil mixing can create continuing land-management problems after solar infrastructure is removed. That sits uneasily with any assumption that East Pye's soil condition can simply be restored using conventional agricultural machinery at the end of the Scheme, let alone any sense that it might be 'improved' by this infrastructure.

The empirical evidence cited by BEPS points in the same direction. The 2025 Carvalho et al. UK solar-farm study recorded mean bulk density approximately 14–15% higher beneath panels, soil organic carbon around 9% lower and particulate organic matter approximately 29% lower. That study does not prove the precise outcome at East Pye, but it further demonstrates that long-term soil neutrality beneath operational solar infrastructure cannot safely be assumed.

The existing agricultural function must also be properly characterised. Land within the Order Limits which is currently, or has recently been, managed through the Countryside Stewardship Scheme (many of the solar fields) cannot be treated as 'industrially farmed' land awaiting environmental enhancement. It is productive agricultural land performing deliberately funded ecological functions, including management for ground-nesting and other red-listed farmland birds such as lapwing and skylark and habitat relevant to turtle dove. Conversion to fenced tracker arrays and generic under-panel grassland is not evidence that those existing agricultural and ecological functions will continue.

Natural England's concerns reinforce the point. It has required complete ALC coverage, consideration and avoidance of peat, greater avoidance of permanent infrastructure on BMV land and sufficiently robust soil-management controls. PINS likewise required ALC survey evidence to inform final design and micro-siting, including the location of BESS infrastructure, and required land take for solar arrays, cable routes, tracks, substations and mitigation to be identified separately. South Norfolk Council records that approximately 80% of the surveyed land is Grade 2 or 3 and has expressly raised

the immediate and cumulative loss of BMV land over the Scheme's 60-year life as a matter of concern.

The decisive issue is therefore not whether some form of agricultural use might theoretically resume after decommissioning. It is whether this particular Grade 2 and Grade 3a heavy-clay soil resource can be demonstrated to return to its existing Agricultural Land Classification after six decades of repeated disturbance and no agricultural use, or even grazing. The Applicant has not supplied that evidence. There is no East Pye-specific compaction-depth model, no evidence establishing the recovery behaviour of the relevant clay and clay-loam soil series following repeated trafficking and pile removal, no demonstrated recovery timetable, no binding requirement that restored land attain its pre-development ALC grade, and no secured long-term monitoring regime capable of requiring further remediation if it does not.

That evidential gap is fundamental. The Welsh Government research demonstrates that reversibility depends on soil type, depth of compaction, wetness, handling conditions and the effectiveness of remediation; that heavy clay soils are among the least resilient; and that deep compaction can be practically or economically impossible to reverse. It expressly models circumstances in which BMV land remains downgraded after decommissioning. Against that evidence, the Applicant cannot legitimately treat restoration to BMV condition as the default outcome merely because panels and tracks can physically be removed.

Chapter 15 therefore presents a site-selection problem, not simply a soil-management problem. East Pye Solar places one of the UK's largest proposed solar developments predominantly on Grade 2 and Grade 3a land whose heavy, slowly permeable and seasonally wet soils are intrinsically vulnerable to structural damage. The Scheme then subjects that resource to repeated trafficking and disturbance over three generations while relying upon an unproven assumption that its agricultural quality can ultimately be restored. No evidence has been provided that this land will recover to its existing BMV grade, and relevant technical evidence demonstrates that in soils of this type such recovery cannot be assumed and may, following deep compaction, be difficult or impossible to achieve. In those circumstances, characterising the agricultural effect as temporary and reversible materially understates the risk. Where the Applicant has neither avoided the extensive BMV resource nor demonstrated that the soil can be returned to its present quality, the loss must be treated as potentially long-term or irreversible in the planning balance. That weighs materially against consent and is further evidence that a development requiring this degree of disturbance has been located on land which is fundamentally ill-suited to accommodate it.

Chapter 16: Ground Conditions

Chapter 16 remains fundamentally preliminary. Its technical basis is principally a Phase 1 desk study drawing upon geological mapping, historical records and a limited number of existing boreholes rather than comprehensive intrusive investigation across

the Scheme. That is a material deficiency because East Pye would introduce thousands of driven supports, extensive cable trenching, deep BESS and substation foundations, HDD and other trenchless works, dewatering, concrete, grout and drilling fluids across land underlain by sensitive aquifers, heterogeneous superficial deposits, former military sites, private water supplies, peat and buried utilities. The Applicant instead proposes that substantial elements of ground investigation, Phase 2 assessment, Foundation Works Risk Assessments, piling assessments and crossing-specific hydrogeological work will follow consent.

The Environment Agency identified this problem at scoping. It opposed the Applicant's attempt to scope ground conditions and groundwater effects out of the EIA because the hydrogeological setting had not been adequately characterised and the relationship between groundwater and surface water was insufficiently understood. It identified incomplete or inaccurate ground information, uncertainty concerning groundwater abstractions and Source Protection Zones, and insufficient information concerning the depth and nature of foundations and HDD works. The EA considered the evidence insufficient to exclude contaminant migration to the underlying Principal Aquifer and required further investigation and risk assessment.

That concern is reinforced by the underlying geology. The Applicant cannot safely assume that the Lowestoft Formation provides a continuous impermeable barrier protecting the Chalk and Crag aquifers. HFCL identifies published BGS evidence showing a more complex system: recharge through the Till to the Chalk may amount to approximately 4.5–20% of effective rainfall; weathered Till can transmit and store groundwater; its hydraulic conductivity may be materially greater than an assumption of impermeability implies; and permeable sand and gravel horizons occur within the formation. The Lowestoft Formation is itself designated a Secondary (Undifferentiated) Aquifer.

The Environment Agency had already identified an apparent inconsistency in the Applicant's treatment of borehole TM18NE11, where 'blue clay' is recorded only to approximately 17.7 m before 'sharp sand', despite the Applicant summarising a greater thickness of Diamicton. That is not a trivial geological discrepancy. If lower-permeability clay is assumed where more permeable granular material actually occurs, the conceptual model may fail to identify a contaminant pathway between construction activity, shallow groundwater and the deeper Principal Aquifer.

HFCL's review demonstrates that the problem is more fundamental still: the Applicant has not actually presented an adequate site-wide hydrogeological conceptual model. Chapter 9 contains no substantive description of existing hydrogeological conditions, while Chapter 16 principally describes aquifer designations without adequately defining groundwater levels, flow directions, recharge, hydraulic relationships or the interaction between the superficial deposits and the underlying Chalk and Crag Principal Aquifer. HFCL therefore concludes that the assessment of wider hydrological and hydrogeological impacts is not supported by a sufficiently characterised baseline.

This deficiency matters because the Scheme itself may alter the source–pathway–receptor relationship. Driven solar supports may extend to approximately 4 m; cable trenches may extend to approximately 2 m, with grouped working widths of approximately 7 m; BESS and major substations may require substantially deeper foundations; and HDD, pipe-jacking and dewatering may intersect groundwater-bearing horizons. Piling can penetrate lower-permeability strata and create vertical pathways; trenches can create preferential lateral drainage routes; dewatering can alter hydraulic gradients; and HDD can introduce drilling fluids or mobilise existing contaminants. Concrete, grout, fuels, oils and other construction substances introduce additional potential sources.

The Applicant’s assessment of piling is consequently too narrow. Chapter 16 recognises that foundations may create preferential pathways but assesses risk principally by reference to the presence or absence of existing brownfield contamination. HFCL identifies the fundamental omission: the Scheme itself is capable of becoming the contaminant source. Construction fuels, oils, cementitious materials and spills, and operational sources including transformer oil and contaminated BESS firewater, may enter groundwater through pathways created by foundations or other intrusive works. The source–pathway–receptor model therefore cannot be confined to historic contamination.

The Environment Agency’s requirement for Foundation Works Risk Assessments and Piling Risk Assessments is important for precisely this reason. Similar hydrogeological risk assessment is required for HDD and other trenchless methods where they may interact with Principal or Secondary A aquifers, watercourses or sensitive ecological receptors. These later assessments cannot safely be treated as routine construction detail where their findings may determine whether the proposed foundation system or crossing method is environmentally acceptable at all.

The private-water-supply evidence makes that uncertainty particularly serious. At scoping, 35 private water supplies were identified within 250 m for which accurate locations and/or abstraction strata were unavailable. The Environment Agency required the locations and, where possible, abstraction horizons to be established, and required a wider search around the BESS and substations. Until that work is complete, the receptor side of the source–pathway–receptor model is itself incomplete.

HFCL’s independent fieldwork materially strengthens that concern. It concludes that the Applicant has not demonstrated a methodology capable of identifying all private supplies. Local Authority, BGS and Environment Agency records were not shown to have been systematically cross-checked against addresses and mains-water records followed by ground-truthing. During only a limited site visit HFCL identified an active supply at Boyland Hall which the Applicant had assumed to be disused. HFCL therefore considers it ‘possible (indeed probable)’ that further private supplies have been omitted. It also records that some households rely upon those groundwater supplies as their sole source of domestic water.

HFCL also identifies internal inconsistencies in the Applicant's treatment of the strata from which those supplies abstract. Technical Appendix 16.1 assumes in some instances that the presence of Lowestoft Formation makes abstraction from that formation unlikely, while elsewhere the Applicant accepts that the same formation does support a private water supply. HFCL regards those assumptions as confused and potentially unsound. In a development where protection of drinking-water supplies depends upon identifying the actual abstraction horizon and pathway, that uncertainty is material.

The aquifer and Source Protection Zone baseline is likewise inconsistent. HFCL identifies Table 16.7 as incorrectly describing the bedrock aquifers as Secondary A before later parts of Chapter 16 correctly identify the Chalk and Crag as Principal Aquifers. It also identifies confusion concerning whether SPZs relate to shallow superficial or deeper bedrock abstractions. Chapter 9 fails to identify a Zone I SPZ within the study area and understates the extent of SPZ coverage; HFCL records that most of the Scheme lies within SPZ limits. These are not merely terminological errors. Aquifer status and source-protection designation determine receptor sensitivity and the level of protection that the assessment must apply.

Groundwater-dependent terrestrial ecosystems are also incompletely addressed. HFCL identifies GWDTEs associated with nearby SSSIs which the Applicant has not fully recognised and concludes that no adequate assessment has been provided of the possible hydrogeological connections between the Scheme and those receptors. The absence of direct physical works within a designated site does not exclude an effect if groundwater level or groundwater quality on which the habitat depends is altered.

The former military sites create a separate group of inadequately characterised contamination risks. Site 3 occupies former RAF Hardwick, Site 10 lies within the former RAF Seething landscape, and Site 1/BESS lies close to RAF Tibenham. The Inspectorate identified moderate-to-high UXO potential associated with former airfields and aircraft crashes and required further investigation. The Environment Agency required consideration of historic disposal around RAF Hardwick, including aircraft, ordnance and possible radium-impacted ash. South Norfolk Council separately required further investigation of former airfield contamination and identified PFAS, firefighting-foam residues and de-icing chemicals as plausible contaminants requiring consideration.

PFAS is particularly important because it demonstrates why investigation after consent is not a neutral solution. If intrusive investigation subsequently identifies persistent contaminants in hydraulic connection with groundwater, the appropriate response may not be a minor amendment to a method statement. It may require a different foundation system, avoidance of an area, different drainage, relocation of infrastructure or abandonment of a particular construction technique. The environmental acceptability of the development would therefore be being determined after the power to construct it had already been granted.

The same concern applies to RAF Tibenham. Exclusion principally by geometric distance from identified source areas does not demonstrate absence of a hydrogeological pathway. Where Site 1 and the BESS occupy a sensitive groundwater setting, where superficial deposits are heterogeneous and where private groundwater abstractions occur locally, pathway evidence is more important than an arbitrary distance threshold.

CRC7 illustrates the same problem in relation to peat and trenchless works. HDD is proposed beneath Hempnall Beck in an area involving mapped peat and the Fritton Grange Meadows CWS. Natural England requires clarification and avoidance of peat. A trenchless crossing cannot simply be equated with avoidance: the environmental consequences depend upon actual depth, geological conditions, drilling-fluid pressures, settlement potential, groundwater movement and the hydraulic relationship between the watercourse, peat and underlying strata. Those conditions need to be understood before HDD can be relied upon as mitigation.

Buried utilities increase the constraint further. The development interacts with the National Gas Transmission network, water and sewer infrastructure, electricity systems and other buried services. A strike or failure may create not simply an engineering or health-and-safety issue, but a gas release, flooding event, contaminant pathway or major-accident consequence. Ground conditions therefore interact directly with Chapter 18 rather than forming an isolated technical discipline.

Most importantly, HFCL finds that the Applicant's division of hydrology into Chapter 9 and hydrogeology into Chapter 16 has itself produced 'inconsistencies and omissions in the overall ES'. It therefore reviewed the chapters together because surface water and groundwater form one connected physical system.

The inconsistency is methodological as well as factual. Chapter 9 uses four magnitude categories—High, Medium, Low and Negligible—whereas Chapter 16 uses five—Large, Medium, Small, Very Small and Negligible. Chapter 9 assesses water-quality change partly by WFD class, whereas Chapter 16 uses Environmental Quality Standards. The two chapters use different significance matrices. HFCL considers Chapter 9's matrix insufficiently precautionary because a single reduction in magnitude from Medium to Low may cause significance to fall two classes, from Major to Minor; Low sensitivity combined with Low magnitude produces Negligible; and Medium sensitivity combined with Low magnitude may produce Minor/Negligible. The equivalent defect is not present in Chapter 16.

That creates a substantive assessment problem. The same hydrologically connected system may receive different significance outcomes according to the chapter and methodology through which the relevant part of the pathway happens to be considered. Surface water, shallow groundwater, deeper groundwater and a groundwater-dependent receptor cannot properly be assessed as separate environmental systems where they are hydraulically connected.

HFCL also criticises Chapter 9 for partly defining sensitivity by distance from the Scheme. Sensitivity is a characteristic of the receptor; distance relates to exposure and does not establish groundwater connectivity. HFCL identifies different distance thresholds even within the Applicant's treatment of private water supplies. The existence of a hydraulic pathway, rather than whether a supply lies within an arbitrary 250 m or 1 km buffer, is the relevant question.

The inconsistency extends to the threshold for water-quality damage. HFCL records that Chapter 9 defines High magnitude as requiring a two-class WFD deterioration, whereas the relevant River Basin Management Plan objective is to prevent deterioration. The assessment methodology therefore risks understating an adverse effect before the significance matrix is even applied.

The interaction between Chapters 9 and 16 is especially important at Site 1. HFCL identifies surface-water flood risk within and around the proposed 400 kV and National Grid substation areas and warns that exceedance floodwater must not rely upon the same containment capacity as contaminated firewater, since a coincident fire and storm event could overwhelm the containment system. It also notes that the Applicant states that the BESS 'may' be divided into separately contained compartments, making it unclear whether this is committed mitigation.

That issue cannot sensibly be allocated solely to the water chapter. Firewater is the contaminant source; foundations, permeable superficial deposits and groundwater are possible pathways; and the Principal Aquifer, private abstractions and connected watercourses are receptors. Chapter 16 cannot conclude that groundwater effects are insignificant without assessing that complete chain.

HFCL identifies a further hydrogeological omission in the water-balance assessment. Rainwater harvesting is treated as effectively non-consumptive even though water removed through foul effluent, use and evapotranspiration will not all return to the local groundwater system. That may reduce infiltration and aquifer recharge. HFCL expressly finds that this consequence has not been assessed in Chapters 9 or 16 in relation to private water supplies, particularly shallow supplies drawing from the glacial Till, or reconciled with the ecological assessment.

HFCL ultimately identifies 15 principal deficiencies across the ground, hydrology and hydrogeological evidence. They include inconsistent Chapter 9/16 assessment methodologies; inadequate WFD thresholds; inappropriate exclusion of three surface-water bodies and the Broadland Rivers Chalk and Crag groundwater body; incomplete assessment of construction-water requirements; an unidentified source for imported water; an unreliable private-water-supply baseline; omitted GWDTEs; the absence of an adequate conceptual hydrogeological model; aggregation of receptors rather than receptor-specific assessment; unresolved Site 1 flood/firewater interaction; inadequate consideration of piling as a pathway for contaminants generated by the Scheme itself; inconsistent aquifer and SPZ information; and water-balance figures which do not satisfactorily reconcile.

These findings are especially damaging because the Applicant nevertheless concludes overwhelmingly that ground-condition effects will be Minor Adverse or Negligible and Not Significant. Those conclusions depend upon the source, pathway and receptor having been reliably identified. HFCL demonstrates that all three remain materially uncertain in important parts of the Scheme.

A Phase 1 desk study cannot establish absence of significant effect where the intrusive investigation required to determine actual ground conditions has not yet occurred; the hydrogeological conceptual model is incomplete; some drinking-water receptors may be unidentified or wrongly characterised; GWDTE connectivity has not been assessed adequately; contaminant sources associated with former airfields remain unresolved; and the development itself has not been fully incorporated as a potential source of groundwater pollution. Nor can later FWRAs and HDD assessments be treated simply as mitigation of an established acceptable scheme where they may determine whether the proposed foundation or construction method is permissible in the first place.

HFCL's overall conclusion is correspondingly serious. It finds a **'significant lack of confidence' that impacts to the water environment are properly understood or can be mitigated**, identifying shallow and deep groundwater, households dependent upon groundwater as their sole water supply, other water users, local watercourses, sensitive aquatic ecosystems and GWDTEs as receptors potentially at risk from derogation or pollution. That is fundamentally inconsistent with treating Chapter 16 as demonstrating a settled, environmentally acceptable ground solution.

The conclusion should therefore be stronger than a requirement for further routine investigation. Chapter 16 has not demonstrated that East Pye can be constructed within the authorised envelope without unacceptable ground and groundwater effects. The Applicant seeks consent for extensive intrusive development before establishing the conceptual ground model necessary to determine where that development can safely occur. The outstanding evidence may require different foundation systems, alternative HDD methods, avoidance of contaminated ground, additional separation from private abstractions or GWDTEs, relocation of infrastructure, or removal of works altogether. Those are matters of scheme acceptability and design, not matters which can safely be left wholesale to post-consent construction control.

The evidence is also cumulative and mutually reinforcing: the Environment Agency questioned the ground and groundwater model from the outset; South Norfolk Council has identified inadequately investigated former-airfield contamination including PFAS; the Inspectorate required further investigation of UXO; and HFCL now identifies fundamental deficiencies in the conceptual model, the private-water-supply baseline, aquifer and SPZ characterisation, GWDTE assessment, piling assessment and the interface between Chapters 9 and 16. HFCL's finding of a 'significant lack of confidence' in whether effects are properly understood or capable of mitigation therefore strikes directly at the Applicant's repeated Minor/Negligible, Not Significant conclusions.

On the present evidence, the Applicant has not shown that the physical ground through which East Pye would be built is capable of accommodating the proposed development without unacceptable risks to Principal Aquifers, drinking-water supplies, connected surface waters, groundwater-dependent ecosystems and human health. Where the missing information may change whether, where and how authorised Works can be constructed, a positive conclusion cannot logically precede that information. Unless the Applicant provides the necessary intrusive investigation, coherent hydrogeological conceptual model, receptor-specific assessment, contamination characterisation and foundation/HDD evidence during the Examination – and demonstrates that the resulting solution remains within the environmentally assessed DCO envelope – Chapter 16 materially undermines both the adequacy of the environmental case and the physical deliverability of East Pye. It therefore weighs strongly against development consent.

Chapter 17: Electromagnetic Fields

Chapter 17 does not demonstrate that the electromagnetic-field effects of East Pye are insignificant. BEPS does not contend that harmful human exposure has already been proved. The more fundamental objection is that the Applicant has reached a Minor/Not Significant conclusion without modelling the electrical system for which it actually seeks consent. That distinction is important. The question for the Examination is not whether generic electricity infrastructure can normally comply with public-exposure limits, but whether this particular combination of 132 kV and 400 kV infrastructure, operating in this particular configuration and in proximity to these particular human and ecological receptors, has been shown to do so.

That was precisely the concern identified at scoping. The Applicant originally sought to scope EMF out, relying on generic embedded measures such as undergrounding, locating substations and the BESS away from receptors and maintaining a 15 m offset from PRowS. It had undertaken no baseline EMF survey and proposed no further baseline work. The Inspectorate expressly refused that request because of the uncertainty surrounding the cabling design, possible 400 kV overhead infrastructure and proximity to receptors. It required the ES to address risks to both human and ecological receptors, having regard to relevant technical guidance, and to identify the design measures relied upon to prevent significant effects. Chapter 17 therefore needs to be judged against an explicit requirement for a project-specific human and ecological assessment, not merely a generic demonstration that electricity infrastructure is normally capable of compliance.

The scale of the electrical system makes that requirement material. East Pye comprises extensive 33–132 kV internal networks; 400 kV underground circuits; existing and diverted 400 kV overhead lines; new pylons; Project Substations; a proposed National Grid Substation; transformers, switchgear, conversion units and inverters; the BESS and its power-conversion equipment; and cable joints, terminations and connection infrastructure. At Site 1B in particular, the Scheme concentrates the proposed National Grid Substation, Project infrastructure, the existing/diverted dual-circuit 400 kV

overhead line and new pylons in the Great Moulton area. The relevant environmental question is therefore the field environment created by the system as a whole, including simultaneous operation of adjacent sources, rather than the behaviour of an isolated generic cable or generic overhead line.

Appendix 17.1 does not provide that assessment. Its essential function is public-exposure compliance screening using published generic field values and reference levels. It does not contain a source model of East Pye, receptor coordinates, field contours or calculations for the actual electrical layout. There is no modelling based on the proposed conductor configurations, maximum currents, circuit spacing, phasing or bonding arrangements; actual burial depths; number of circuits within particular corridors; joint bays and terminations; final overhead-line geometry, conductor clearance and sag; topography; simultaneous operation of neighbouring electrical sources; or the range of configurations permitted by the DCO envelope. Nor are maximum predicted electric and magnetic fields given for identified homes, workplaces, PRoWs or ecological receptors.

That omission is particularly important because the generic numbers relied upon do not provide large margins from the selected reference levels. Chapter 17 cites approximately 95 μT at one metre above the centreline of a generic 400 kV underground cable against a public magnetic-field reference level of 100 μT . That is a margin of only 5 μT , or 5%. Yet the Applicant does not demonstrate that the East Pye configuration corresponds to the generic cable from which the figure is taken. It does not show whether the calculation assumes one circuit or several, what current is flowing, how conductors are arranged, whether parallel circuits reinforce or partly cancel their fields, what occurs at joint bays and terminations, or what tolerances arise from detailed design and later replacement. A generic result lying only 5% below the selected reference level cannot rationally support a categorical project-wide conclusion of Low magnitude and Minor/Not Significant effect without showing that the authorised East Pye system remains within that result under its maximum design case.

The overhead-line evidence raises the same issue more clearly. The Applicant itself records generic electric fields immediately beneath a 400 kV overhead line of approximately 10–10.6 kV/m, more than twice the 5 kV/m public reference level on which it relies. The assessment then depends upon the proposition that the electric field falls below the reference level with lateral separation, including reliance on a 15 m distance. But Chapter 17 provides no receptor-specific calculations showing the actual field at the relevant distance from the East Pye conductors; no contours demonstrating where the 5 kV/m line would fall after diversion of the existing circuit; no assessment of conductor height, sag, pylon geometry or topography; and no clear demonstration that the necessary separation is secured throughout the DCO. South Norfolk Council separately identified errors or ambiguities in the presentation of the figures, noting that explanatory text referred to underground-cable drop-off even where the figures related to overhead lines, and requested clarification of the applicable ICNIRP criteria.

The guidance issue should also be expressed accurately. The relevant later ICNIRP low-frequency guidance is the 2010 guidance for 1 Hz–100 kHz; the 2020 ICNIRP guidance

relates principally to radiofrequency exposure and should not simply be substituted as the applicable 50 Hz standard. The important criticism is that the Applicant needs to explain clearly which exposure criteria apply, how the 1998 and 2010 guidance relate to the assessment, and why the chosen criteria are appropriate for each source and receptor. SNC expressly requested that comparison.

There is also no measured baseline. That matters because the western part of the Scheme already contains a 400 kV overhead line. Chapter 17 effectively treats that existing field as part of the baseline and therefore not an effect of the Scheme, while the Scheme itself would alter that electrical environment through diversion of the line, construction of new pylons and addition of major 400 kV infrastructure. No measurements establish existing field strengths at nearby dwellings, PRowWs, workplaces or ecological corridors, and there is consequently no empirical baseline against which the change caused by East Pye can be tested. The Applicant's original Scoping Report expressly confirmed that no baseline EMF surveys had been undertaken.

The human-receptor assessment is also insufficiently differentiated. Chapter 17 generally assigns human receptors Medium sensitivity because exposure to EMF is an ordinary feature of modern life. That does not explain the sensitivity of individual receptors to this development. Homes represent potentially long-duration exposure; PRowWs may pass through or alongside electrical corridors; agricultural and maintenance workers may spend repeated periods near equipment; and persons with implanted medical devices may require different consideration from the general population. Nor does Chapter 17 provide an exposure schedule showing the predicted maximum field at each identified receptor. The Applicant therefore moves from a generic characterisation of people as Medium sensitivity directly to a project-wide Minor conclusion without the receptor-specific exposure calculation that should sit between them. Norfolk County Council had already identified EMF as an issue requiring thorough investigation within the wider health assessment because of its potential significance to local communities.

The treatment of substations, transformers, inverters and the BESS is weaker still. Their effects are not quantitatively modelled. The assessment relies substantially on enclosure, access control and CE/UKCA conformity to infer that they will not create material public exposure. Product conformity is not a substitute for an environmental field calculation. Chapter 17 provides no equipment-specific source inventory, transformer or inverter ratings, maximum operating currents, magnetic-field contours around the BESS or substations, or calculation of the combined field where several pieces of equipment operate together. This is significant for a 60-year development in which electrical plant can be replaced: there is no clear EMF performance limit ensuring that replacement equipment remains within the field characteristics assumed at consent.

The most serious deficiency, however, is ecological. The Inspectorate did not merely require consideration of human exposure. Scoping Opinion 3.4.1 expressly required assessment of human and ecological receptors. Chapter 17 nevertheless constructs its

sensitivity classifications, magnitude criteria, significance conclusions and residual-effects assessment essentially around human exposure. Ecological effects are largely displaced into Chapter 8 without a corresponding EMF methodology identifying ecological receptors, exposure pathways, field strengths, thresholds or significance criteria. A cross-reference to Ecology cannot discharge the Scoping Opinion where neither chapter actually undertakes the assessment.

The omission is particularly stark at Hempnall Beck. The Environment Agency specifically advised that the Beck contains a notable fish population including brown/sea trout, bullhead, European eel and brook lamprey. It identified a potential adverse EMF pathway from the 400 kV cable crossing at CRC7 and requested either an assessment of effects or evidence that the cable would be buried sufficiently deeply for magnetic fields not to be detectable by fish. The Inspectorate adopted that issue expressly in Scoping Opinion 3.15.17: the ES was to assess EMF effects on fish or demonstrate that burial depth at the Hempnall Beck crossing would avoid detectable magnetic fields.

Chapter 17 does not provide that crossing-specific demonstration. There is no calculation of magnetic flux density at the stream bed, banks or water column; no stated cable configuration and loading at the crossing; no modelling of alternative burial depths; and no assessment of whether parallel circuits alter exposure. The generic human calculation at one metre above a buried cable does not answer the question posed by the Environment Agency or the Inspectorate, because an aquatic organism may be immediately above the bed and the relevant ecological question is not whether a human public-exposure limit is exceeded.

That omission has become more important as the ecological baseline has developed. The River Tas is a chalk-stream priority habitat and white-clawed crayfish have been recorded within the system; the Scoping Opinion specifically required crayfish to be investigated at relevant watercourse works. Aquatic invertebrates were also expressly required to remain within the assessment. Yet Chapter 17 contains no receptor-specific EMF analysis for fish, white-clawed crayfish or aquatic invertebrates. BEPS does not need to establish that a particular field strength will necessarily harm those species in order for the omission to matter. The Applicant was expressly required to assess the pathway, and it has not demonstrated the field to which those receptors would actually be exposed.

The same evidential problem arises in relation to bats. East Pye occupies a landscape of exceptional bat importance, including widespread barbastelle activity and maternity-colony networks. Yet there is no overlay of the high-voltage infrastructure with known roosts, core sustenance zones, commuting routes or woodland and hedgerow corridors, and no calculation of fields within those habitats. The scientific evidence concerning biological responses to EMF is less settled than the human acute-exposure framework, which makes it particularly important not to convert uncertainty into an assumption of no effect. The defensible requirement is a receptor-specific ecological assessment capable of demonstrating that the proposed electrical infrastructure does

not materially affect the ecological functions on which protected species depend. Chapter 17 does not provide one.

The phase assessment is also too narrow. Construction and decommissioning are effectively excluded on the reasoning that unelectrified new cables do not themselves generate operational EMF. That does not address construction beneath or beside the existing live 400 kV system, commissioning and staged energisation, replacement works undertaken alongside operational equipment, or eventual decommissioning where National Grid infrastructure is expected to remain. Worker and contractor exposure during those interfaces is therefore not captured simply by stating that unenergised cables produce no field.

Nor is there a satisfactory cumulative assessment. Chapter 17 gives limited consideration to cables sharing trenches and refers to ordinary household electrical sources, but does not model the cumulative field at a receptor from multiple East Pye circuits, an existing or diverted 400 kV overhead line, the National Grid and Project substations, transformers, BESS power-conversion equipment and nearby cables operating simultaneously. The comparison with household appliances does not answer the cumulative EIA question created by concentrating several high-voltage sources within the same area. Nor is there a coherent ecological cumulative assessment where the cable system repeatedly crosses or runs alongside the same connected habitat network.

The mitigation relied upon is correspondingly underdeveloped. Undergrounding removes or screens the external electric field but does not eliminate the magnetic field. A 15 m offset from overhead infrastructure cannot be treated as effective mitigation until the field at that distance has been calculated for the actual design and the offset legally secured. CE/UKCA conformity says nothing about the cumulative environmental field created by several compliant products operating together. There is no scheme-wide EMF management strategy; no mapped exclusion contours; no ecological separation requirement; no maximum field performance standard tied to the DCO; no requirement for post-energisation validation; no trigger for remedial action if predicted fields are exceeded; and no control ensuring that replacement equipment over the 60-year operational period remains within the assessed envelope.

There are also internal indicators that the assessment has not been carried through consistently. Chapter 17 variously describes human receptors as Medium sensitivity while one table records High sensitivity; uses terminology inconsistently between magnitude and effect; refers in places to ‘measured’ field values despite there having been no East Pye measurements; and describes effects as temporary by reference to the project lifetime even though exposure could continue for up to 60 years. The main text and technical appendix also use slightly different generic overhead-line figures. Individually these may be drafting issues, but collectively they make it more difficult to reproduce the route by which the Applicant moves from its source data to a Minor/Not Significant residual conclusion.

The resulting evidential gap is therefore substantial. The Applicant has shown, at most, that selected generic examples of individual electricity assets can fall within selected human public-exposure reference levels at particular distances. It has not shown what electric and magnetic fields the East Pye system itself would produce at its actual human and ecological receptors; whether the narrowest generic margins remain valid under the maximum DCO design; whether multiple sources materially alter those fields; whether the specific Hempnall Beck requirement imposed by the Inspectorate has been satisfied; or what enforceable measures would prevent later design or replacement from exceeding the assumptions on which the assessment depends.

The proper conclusion is consequently stronger than a request for clarification. The Applicant has not yet supplied the evidence necessary to support its Minor/Not Significant conclusion. Before consent can safely be recommended, it should provide a scheme-specific maximum-case EMF model covering every relevant 132 kV and 400 kV circuit, overhead-line configuration, substation, transformer, inverter, BESS installation, joint and termination; map predicted electric and magnetic fields against identified human and ecological receptors; undertake the crossing-specific aquatic assessment expressly required by the Inspectorate and Environment Agency; assess the combined field from simultaneously operating infrastructure; and secure the resulting separation distances, burial depths, equipment limits and monitoring requirements within the DCO.

That evidence may show that effects can be satisfactorily controlled. But until it exists, the Examination does not know whether the authorised design complies with the assumptions on which Chapter 17 depends, whether particular cable or overhead-line alignments require greater separation, whether ecological crossings require deeper burial or rerouting, or whether infrastructure must be relocated. Those are pre-consent questions capable of changing the physical design of the Scheme, not matters which can safely be left to detailed design after consent. The Inspectorate specifically refused to allow EMF to be scoped out because precisely these uncertainties existed. Chapter 17 has not resolved them. Its Not Significant conclusion should therefore be afforded little weight and, unless the deficiency is remedied during the Examination within the assessed DCO envelope, it weighs materially against development consent.

Chapter 18: Other Environmental Matters and Major Accidents

Chapter 18 identifies a series of risks which become materially more serious when considered together. East Pye does not merely introduce solar panels and electrical equipment into open countryside. At Sites 1 and 5 in particular, the Scheme concentrates high-voltage infrastructure alongside aviation activity, strategic gas and rail infrastructure, groundwater and drinking-water receptors, sensitive aquatic and terrestrial ecology, roads and nearby communities. The central issue is therefore one of **risk interaction**. Demonstrating that each asset can normally be operated safely in isolation does not establish that the combined probability–consequence profile of the East Pye infrastructure clusters is acceptable.

The utilities evidence is important in its own right. National Gas Transmission has confirmed that its FM05 Yelverton–Stowmarket high-pressure feeder main lies within or close to the Order Limits, together with cathodic-protection infrastructure and associated apparatus. Its easements preserve access and restrict buildings, structures, ground-level changes and storage within the protected strip. NGT also specifically identifies high-voltage cable crossings and parallelism, AC pylon parallelism, BESS and PV installations as capable of interfering with cathodic protection and requiring assessment and approval.

The gas-main issue is therefore not confined to the ordinary risk of excavation striking a buried pipeline. The electrical development itself may interact with the protection and operation of the gas transmission system. East Pye consequently requires a resolved utilities-conflict assessment showing the relationship between cables, piles, substations, solar arrays, BESS infrastructure and gas assets; the required separations and construction controls; restrictions on loading and ground levels; cathodic-protection compatibility; continuing operator access; emergency arrangements; and the protective provisions applying throughout construction, operation, replacement and decommissioning. Equivalent clarity is required for water, sewer, fibre and other buried infrastructure. Later discovery of an incompatible easement or safety requirement may necessitate relocation of authorised infrastructure rather than simply a different construction method.

The most serious major-accident issues are concentrated at **Site 1** and **Site 5**.

At Site 1, the proposed National Grid and associated 400 kV infrastructure would create a permanent cluster of substations, gantries, transformers, busbars, pylons and overhead-line works immediately south of Great Moulton and north of Tibenham Airfield. The site lies within the airfield safeguarding context and within mapped glider launch-failure or EFATO sectors associated with runway headings 03/21, 08/26 and 15/33.

That makes the aviation issue wider than conventional obstacle clearance or glint and glare. Gliders and tow aircraft experiencing launch failure or engine failure may have very limited altitude, time and manoeuvrability and rely upon unobstructed emergency landing areas. Additional pylons, substations, fencing and other infrastructure may therefore alter the available emergency environment even where individual structures do not technically infringe a conventional obstacle surface.

The cumulative aviation context is also important. Norwich–Tilbury would introduce further 400 kV infrastructure to the west of the airfield, while Simpsons Maltings Solar Farm lies to the south-east. East Pye would add further transmission-scale infrastructure to the north. The relevant question is whether the combined infrastructure progressively constrains emergency glide-out options around several quadrants of the airfield. That requires airfield-specific EFATO trajectory assessment, obstacle modelling and engagement with the operator, not simply analysis of each structure in isolation.

The consequence of an aircraft interaction with the Site 1 electrical infrastructure also distinguishes the issue from ordinary safeguarding. The 400 kV compound would contain transformers, high-voltage equipment and substantial quantities of insulating oil. A credible impact sequence could involve structural damage, oil release, ignition and secondary fire, followed by smoke, contaminated firewater and mobilisation of pollutants beyond the compound.

The consequence assessment therefore needs to consider impact resistance, transformer-oil containment, bund performance under accident conditions, fire escalation, smoke and particulate dispersion, firewater containment and emergency-service access, rather than merely the probability of an aircraft strike.

Those consequences are magnified by the receiving environment. Site 1 is above a **Principal Aquifer**, lies within the wider **River Waveney catchment** and is close to private water supplies. A major fire or impact event which compromises oil or firewater containment therefore creates a credible source–pathway–receptor chain from the substation through soils, drains and groundwater to potable abstractions and connected surface waters. Ordinary operational drainage calculations do not establish that containment would remain effective under the abnormal conditions which a major-accident assessment is intended to test.

The London–Norwich main railway adds a further strategic receptor. It lies within the wider infrastructure corridor between Tibenham Airfield and the proposed transmission development. A constrained aircraft trajectory, debris, smoke or secondary fire could therefore affect not only East Pye infrastructure but the electrified railway, passengers, staff and continuity of a strategic transport route. The aviation, electricity and railway interfaces need to be considered as one scenario where a single initiating event could connect them.

Great Moulton adds a direct human receptor. The WR identifies homes approximately 100–200 m north of the proposed compound. A transformer fire, aircraft impact, smoke plume or major containment failure would therefore occur close to an established village rather than within an isolated industrial estate. The assessment needs to address radiant heat, smoke and particulate dispersion, emergency cordons, evacuation, access for responders and the ability to manage an incident while adjacent infrastructure remains energised. Norfolk Fire and Rescue Service has already raised concern about the safety of the Site 1B location because of its proximity to Great Moulton.

The combined Site 1 case is therefore:

aviation safeguarding + 400 kV infrastructure + transformer fire and oil + Principal Aquifer + private drinking-water supplies + Waveney catchment + strategic railway + nearby homes.

Each element increases either the likelihood, pathway or consequence of a credible abnormal event. The Application does not presently provide an integrated worst-case assessment of that infrastructure cluster.

The risk environment at **Site 5** is different but equally concentrated. The proposed 400 kV substation lies on elevated land connected by field drains, ditches and culverts to the River Tas system. In the event of transformer-oil release, bund failure, firewater exceedance or major electrical fire, contamination could therefore be carried beyond the compound into the connected chalk-stream catchment.

That pathway is environmentally important because the River Tas system contains repeated evidence of **white-clawed crayfish, including breeding evidence**. Site 5 also has groundwater-fed private water supplies to the north. An accident may therefore create both a surface-water pathway towards highly sensitive aquatic ecology and a groundwater pathway towards drinking-water receptors.

The location also creates a direct interface between major electricity and gas infrastructure. The site is intersected by a high-pressure gas transmission main together with local gas infrastructure. A transformer fire, explosion or ground failure could threaten pipeline integrity; conversely, gas release or ignition could escalate an electrical incident. Assessment is therefore required of separation distances, thermal radiation, blast or overpressure, pipeline resilience to external fire, electrical ignition interaction and coordinated emergency response.

The National Gas evidence reinforces the point. NGT itself identifies PV arrays, BESS, high-voltage cables and high-voltage pylons as infrastructure requiring specific assessment because of possible interaction with its protected assets and cathodic-protection system. The coexistence of a 400 kV substation and strategic gas infrastructure therefore requires a demonstrated engineered solution rather than an assumption that the two regulated systems will independently remain safe.

The human receptors at Site 5 materially increase the potential consequence. The WR identifies residential properties and the Fritton Conservation Area immediately south of the proposed infrastructure and a **children's nursery directly to the north**. A gas or transformer-related incident therefore requires quantitative consideration of smoke dispersion, radiant heat, emergency cordons, evacuation or shelter, emergency access and the particular vulnerability of young children.

Site 5 also lies within the functional landscape of multiple barbastelle maternity colonies. Fire, smoke, prolonged emergency lighting, chemical release and emergency activity could affect ecological corridors beyond the substation boundary. The consequence assessment cannot stop at the compound fence where nationally important protected-species habitat and hydrologically connected aquatic receptors occur immediately outside it.

The combined Site 5 case is therefore:

400 kV infrastructure + high-pressure gas transmission + transformer oil and firewater + River Tas drainage pathways + chalk-stream ecology + white-clawed crayfish + private drinking-water supplies + nearby homes + a children's nursery + nationally important bat habitat.

That level of constraint stacking requires an integrated cross-hazard assessment.

The fact that PINS allowed a standalone Major Accidents and Disasters chapter to be scoped out at an earlier stage does not resolve these later and more developed issues. The Scoping Opinion was based upon the scheme and information available at the time and expressly expected BESS fire risk, firefighting and containment to be addressed elsewhere. It does not establish that later-developed Site 1 and Site 5 configurations are acceptable once the combined interactions between transmission infrastructure, aviation, gas, railway, groundwater, ecology and human receptors are identified.

Glint and glare forms the other significant part of Chapter 18 and reinforces rather than sits separately from those safety concerns.

The Applicant's own earlier assessment identified potentially significant reflections towards the A140 and B1527 within drivers' primary fields of view, potentially significant effects at

residential properties requiring mitigation, and reflections at some aerodromes above the ‘low potential for temporary after-image’ threshold.

The aviation context is unusually dense. Applicant material identifies Hardwick Airfield approximately 30 m from Sub-Site 3A, Seething approximately 220 m from Sub-Site 10B, Norfolk Gliding Club/Tibenham approximately 1 km from Sub-Site 1A, together with Topcroft Farm, Long Stratton, Nut Tree Farm and Tibenham Priory airstrips within the wider area. Glint and glare must therefore be understood as part of a wider aviation-safety environment rather than as a purely visual effect.

PINS required the glint-and-glare assessment to justify its methodology and receptor selection and to address construction and decommissioning as well as operation. The absence of a standalone ES chapter does not mean those effects were substantively scoped out.

The residential evidence is also material. South Norfolk Council records that the Glint and Glare Assessment identified **68 remaining dwellings, 46 of which require mitigation**. SNC also questioned inconsistencies between Chapter 18 and the technical appendix and challenged reliance on ‘embedded mitigation’ where the nature and maturity of the planting had not been demonstrated.

That is important because planting which may take years to become effective does not eliminate the intervening effect. Nor is screening environmentally neutral. Dense planting introduced to control glare may itself alter landscape openness, heritage setting or ecological function. The mitigation therefore needs to be assessed across topics rather than credited as a cost-free solution.

For roads, glare engages driver distraction and highway safety. For homes it creates repeated residential exposure. For airfields it may affect operational safety. Those are materially different receptors and need controls designed around their actual functions.

The central conclusion of Chapter 18 is therefore that East Pye creates **two concentrated high-consequence infrastructure nodes without yet demonstrating the combined risk created at either**.

Major-accident assessment is not defeated merely because an individual event has a low probability. Low-frequency events remain material where the consequences are severe and where one failure may cascade across several systems.

At Site 1, aviation, high-voltage transmission, transformer fire, groundwater, drinking-water supplies, the railway and Great Moulton converge within one risk environment.

At Site 5, high-voltage infrastructure, high-pressure gas transmission, oil and firewater, chalk-stream drainage, protected aquatic ecology, private drinking-water supplies, a nursery, homes and nationally important bat habitat converge within another. Those combinations are themselves evidence of inadequate constraint avoidance.

A location which depends upon multiple independent safety and containment systems all functioning successfully to prevent a single initiating event escalating across aviation, gas, electricity, water, ecology and human-health receptors requires a materially higher level of pre-consent demonstration than the Applicant has provided.

The omission cannot be cured simply by pointing to separate fire, gas, drainage, aviation, ecology or emergency-management controls. The critical question is what happens when those systems interact under abnormal conditions.

Before the ExA could safely conclude that Chapter 18 effects are acceptable, the Applicant would need to provide a coherent cross-hazard assessment addressing, where relevant, aviation and EFATO trajectories, obstacle risk, transformer fire and smoke, oil and firewater containment under accident conditions, gas–electricity domino effects, hydrogeological pathways, railway interaction, emergency access, evacuation and secured glint-and-glare mitigation.

This is ultimately a **site-suitability** issue rather than merely one of residual risk management. If adequate safety margins require relocation of substations, increased separation from gas pipelines, homes or vulnerable receptors, alteration of the transmission layout, protection of aviation emergency corridors or materially different drainage and containment systems, those are changes to the physical design and location of the Scheme. They cannot safely be deferred to later management plans.

On the present evidence, the Applicant has not demonstrated that the Site 1 and Site 5 infrastructure clusters are environmentally and operationally acceptable. Chapter 18 therefore weighs strongly against development consent and reinforces the wider conclusion that East Pye has been located in a landscape where multiple major constraints overlap rather than being avoided.

Chapter 19: Cumulative and In-Combination Effects

The Scheme Has Not Been Assessed as One Functioning Environmental System

Chapter 19 is the point at which the Environmental Statement should demonstrate that East Pye Solar is environmentally acceptable as a whole. Instead, it largely assembles residual conclusions already reached in the separate technical chapters. By the time an effect reaches Chapter 19 it has already been filtered through topic-specific significance thresholds, embedded-mitigation assumptions, professional judgment and, in several cases, incomplete baseline evidence or mitigation deferred to later design. Chapter 19 therefore does not independently test the environmental consequences of the authorised Scheme; it largely reproduces the assumptions and weaknesses of Chapters 6–18.

That is a serious methodological problem for East Pye Solar because this is not a compact generating station affecting a small number of discrete receptors. It comprises ten dispersed Sites and numerous Sub-Sites, approximately 24 km of cable corridor, multiple Project Substations, BESS, a new National Grid Substation, 132 kV and 400 kV infrastructure, existing and diverted overhead lines, new pylons, highway works, access and haul roads, construction compounds and extensive temporary working areas across approximately 54 square miles of the South Norfolk Claylands. Those components repeatedly affect the same villages, roads, landscapes, heritage

settings, soils, aquifers, watercourses and ecological networks. The cumulative question is therefore not whether each isolated effect can individually be reduced to Minor or Not Significant. It is what happens to the same receptor when those pressures are experienced together.

The Applicant's methodology is poorly equipped to answer that question. Chapter 19 takes forward only residual effects of Minor or greater magnitude and excludes effects already characterised as Negligible. It then assesses broad 'receptor groups' rather than every individual receptor and expressly acknowledges that 'the scale of the effect interaction has not been identified'. Those three methodological choices mean that effects are filtered out before interaction is tested; specific worst-affected receptors are aggregated into broad categories; and the spatial and temporal extent of the remaining interaction is not quantified.

The exclusion of Negligible effects is particularly inappropriate for a dispersed development. The principal cumulative harm may arise precisely through repetition of individually small changes. One hedge gap may be negligible; numerous gaps across a connected bat landscape may fragment commuting routes. One low-level source of lighting may be negligible; lighting associated with substations, BESS, compounds, accesses, vehicles, HDD works and security installations may progressively erode a previously dark landscape. One localised area of soil compaction may be limited; repeated compaction from haul roads, compounds, trenching, construction, maintenance and replacement may materially change soil structure and agricultural drainage. One small drainage alteration may appear insignificant, but repeated changes across several micro-catchments, cable corridors and foundations may change the volume, timing and quality of water reaching the same downstream chalk-stream receptor. The same principle applies to traffic, noise, landscape and heritage.

There is therefore an element of circularity in the Applicant's approach. An effect is excluded from cumulative assessment because it was found negligible in isolation, even though the purpose of cumulative assessment is to determine whether several such effects become significant when repeated or experienced together. For East Pye Solar, that screening threshold is capable of producing false negatives by design: the more the environmental consequences are divided into individually small components, the more likely they are to disappear before their combined importance is examined.

The Applicant's express statement that 'the scale of the effect interaction has not been identified' is still more damaging. Scale is not incidental to cumulative significance; it is often determinative. The assessment should establish how many receptors are affected, how many Sites contribute, how much of a habitat or landscape is exposed, how frequently effects occur, how many work fronts operate simultaneously, whether impacts overlap or follow sequentially, whether alternative unaffected habitat or routes remain and whether the interaction persists for hours, months, years or through repeated lifecycle phases. Chapter 19 assigns significance without first quantifying those matters.

For a barbastelle maternity colony, scale means the number and importance of commuting and foraging routes affected across the Core Sustenance Zone, not simply the effect of one hedge crossing. For a settlement, it may mean the number of approaches industrialised by arrays, substations, pylons and construction traffic. For a road network, it means the number and timing of simultaneous work fronts drawing HGVs through the same constrained junctions and lanes. For a catchment, it means the combined area of compaction, trenching, foundations and drainage modification contributing to the same receiving watercourse. For heritage, it means progressive alteration of the historic landscape surrounding several related assets. None of those questions can be answered adequately while the scale of interaction remains unidentified.

This defect was foreseeable at scoping. The Planning Inspectorate required the Applicant to seek agreement with the relevant local planning authorities on the list of cumulative schemes and specifically required the ES to include a figure depicting the ‘locations and extent’ of cumulative developments in relation to East Pye. The present approach does not adequately convey that extent. Large solar schemes, housing developments, BESS installations and linear grid projects are represented substantially through point-symbol mapping. A development occupying hundreds of hectares, or a transmission corridor extending for kilometres, cannot meaningfully be represented by a dot if the purpose is to identify shared landscapes, roads, catchments, ecological networks and heritage settings.

The external cumulative context is also considerably greater than the present summary suggests. Chapter 14 itself identifies **47 cumulative schemes, including 23 energy-related developments and 11 solar farms**, and relies upon the possibility of simultaneous construction when claiming Major Beneficial cumulative employment effects. That is highly significant. If the surrounding development pipeline is sufficiently real to support a Major Beneficial economic conclusion, the same pipeline must be treated with equal seriousness when considering adverse effects on roads, labour availability, temporary accommodation, tourism, landscape, agriculture, drainage, ecology and community amenity. The Applicant cannot adopt an expansive cumulative scenario for benefits and a restrictive one for harms.

South Norfolk Council makes the same broader point. It identifies Tasway Energy Park, Norwich to Tilbury, other proposed solar NSIPs and consented and proposed TCPA schemes and states that their significant cumulative impact on South Norfolk has not been adequately explored and is of serious concern. Norfolk County Council’s LLFA similarly supports the inclusion of proposed but as yet unconsented solar and BESS schemes because many have similar programmes and may be constructed at the same time. It specifically identifies flood risk as an area where downstream cumulative effects may extend much further than the individual project boundary.

Tasway Energy Park is the clearest example of inconsistent treatment. It remains a real proposed project, albeit one whose programme and configuration have been uncertain, and both local authorities have treated it as relevant to the cumulative development context. It is also geographically and functionally relevant to the Great

Moulton/Tivetshall infrastructure landscape. The WR identifies a legitimate inconsistency in the Applicant's approach: uncertainty is used to diminish Tasway's cumulative relevance while East Pye's own BESS remains integral to the Scheme and its claimed benefits despite its similar Gate 1 connection status and unresolved delivery position. A consistent methodology should either apply comparable evidential treatment to both or include Tasway at least as a reasonable worst-case sensitivity scenario.

Norwich to Tilbury is separately important because it is not simply another project on a list. It is major linear electricity infrastructure affecting the same broad rural landscape. It may add pylons and transmission infrastructure to the same landscape character areas, affect the same heritage settings, use parts of the same strategic and local highway network, disturb hedgerows and vegetation, fragment ecological networks and contribute further visual industrialisation. The relevant question is therefore not whether East Pye and Norwich to Tilbury are technically different developments, but whether the same church, village, woodland, road, airfield, historic landscape or ecological network experiences both.

Other solar and BESS developments require the same receptor-led approach. Multiple solar developments can cumulatively remove BMV land, reduce open-country habitat, generate repeated construction traffic, increase pressure on labour and temporary accommodation, transform landscape character and require additional grid infrastructure. Multiple BESS developments can add industrial compounds, transformer and inverter noise, lighting, HGV movements, drainage and firewater risks and demands on emergency services. Existing and proposed grid infrastructure further adds pylons, overhead lines, substations and electrical compounds. Chapter 19 needs to determine the environmental carrying capacity of the receiving landscape rather than simply establish that each individual project has been assessed separately.

Housing growth is also part of the relevant future baseline. Strategic and local housing around Long Stratton, Tasburgh and other settlements can overlap with East Pye through HGV movements, road capacity, construction noise and dust, labour demand, accommodation pressure and drainage. It also creates new residents who will experience the changed landscape and increases use of PRowS and rural roads. The future environment in which East Pye would operate for approximately 60 years is therefore not the present landscape frozen in time. The cumulative assessment needs to model the future development context realistically.

The internal cumulative assessment is even more important. **East Pye must be assessed cumulatively with itself.** The ten-Site configuration creates repeated industrialisation across one connected rural landscape. A settlement may see development on more than one approach; a barbastelle population may use hedges and woods spanning several Sites; one road may serve several construction areas; and the same catchment may receive runoff and drainage changes from several development parcels. Chapter 19 does not adequately demonstrate whether those repeated pressures collectively change the function and character of the South Norfolk Claylands.

The approximately 24 km cable network is itself a major cumulative component. It requires trenching, HDD, joint bays, working widths, soil storage, access, dewatering and repeated crossings. Those activities simultaneously engage soils, agricultural drainage, groundwater, archaeology, watercourses, ecology, transport and EMF. The fact that the cables will ultimately be underground does not make their construction environmentally neutral. The proper cumulative question is how many ecological, hydrological and agricultural systems are disturbed by the complete cable system, and whether those disturbances overlap spatially or temporally.

The multiple electrical compounds likewise need to be treated as one infrastructure system. East Pye includes Project Substations, the National Grid Substation, 132 kV and 400 kV infrastructure, transformers, BESS, underground circuits, overhead lines and new or altered pylons. Their combined effects include landscape change, noise, lighting, EMF, drainage, deep foundations, transformer oil, abnormal-load transport and long-term retention. It is artificial to assess each substation or cable component locally without asking what cumulative industrial environment is created by the electrical system as a whole.

Site 1 is the clearest example of this **internal constraint stacking**. It combines BESS, Project and National Grid 400 kV infrastructure, existing and proposed overhead-line works and pylons with nearby homes, groundwater and private-water receptors, landscape and ecological constraints, Tibenham Airfield, the railway and major construction access. The cumulative question is not whether each technical chapter contains some mitigation. It is whether fire containment, drainage, noise mitigation, aviation safeguarding, AIL access, groundwater protection, landscape mitigation, ecology, electrical safety and residential protection can all be achieved simultaneously within one physically deliverable Site 1 design. Chapter 19 does not undertake that test.

The construction worst case is similarly undefined. The Applicant has not established the realistic maximum number and location of simultaneous compounds, active solar work fronts, piling areas, cable sections, HDD operations, highway works, haul routes and illuminated working areas. Each produces noise, traffic, dust, lighting, runoff, fuel storage, vegetation disturbance and human activity. Several ‘temporary’ effects can collectively become a prolonged landscape-scale pressure if they move sequentially through different Sites or operate concurrently. Without a programme-linked maximum simultaneous scenario, there is no demonstrated construction worst case.

Transport illustrates why mitigation cannot simply be deducted from the cumulative assessment. Passing places, visibility splays, internal haul roads, road widening and revised accesses may reduce a highway problem but create other effects. They may require hedge or tree loss, excavation of verges, impact Roadside Nature Reserves, compact BMV soil, interfere with field drainage, alter historic lanes, affect culverts and watercourses or move traffic closer to houses and heritage assets. Where NCC has required an access strategy materially different from that originally assessed, the environmental consequences of the revised solution must themselves be assessed

cumulatively. A transport solution is not environmentally neutral merely because it solves a transport constraint.

Landscape mitigation creates the same problem. New hedges, woodland and scrub can screen infrastructure, but that planting may simultaneously reduce the openness required by skylark and lapwing, alter historic relationships between churches, farmsteads and open fields, change the characteristic structure of the Claylands and constrain subsequent restoration of agricultural land. The same hedge cannot simply be credited as landscape mitigation, heritage mitigation and ecological enhancement without assessing what it encloses, what habitat it changes and what historic view or spatial relationship it removes.

Water, soils and ground conditions provide perhaps the clearest illustration of why a topic-led cumulative assessment is inadequate. Heavy clay soils influence infiltration and runoff; compaction changes agricultural drainage; cable trenches may intercept drains; piling may create groundwater pathways; HDD can affect surface and groundwater; contaminated soil may be mobilised; and concrete, oils, dewatering and BESS or transformer firewater introduce pollutant sources. Those pathways may all ultimately affect the same Principal Aquifer, private water supply or River Tas/Waveney-connected receptor. Chapter 19 should integrate them into one source–pathway–receptor model. It does not.

Ecology also needs to be assessed by functional network rather than habitat label. The cumulative barbastelle receptor is the maternity-colony landscape: multiple colonies, overlapping Core Sustenance Zones, woodland, hedges, dark corridors, field margins and watercourses. It is exposed simultaneously to panel land-take, hedge gaps, lighting, noise, fencing, traffic, woodland-edge disturbance, cable routes and compounds. Six ancient woodlands directly adjoining the Scheme are similarly exposed not simply to direct loss but to enclosure, lighting, edge effects, disturbance, hydrological change and loss of connectivity. Farmland birds experience loss of open habitat combined with planting, fencing and construction disturbance. Roadside Nature Reserves and botanical corridors face repeated access works, widening, visibility splays and vegetation removal. Great crested newt populations depend upon pond-and-terrestrial networks which can be fragmented without any individual pond being destroyed. The River Tas system experiences HDD, sediment, runoff, groundwater changes, electrical crossings and construction disturbance. Chapter 19 does not adequately assess those functional systems as cumulative receptors.

The heritage case is similarly broader than simultaneous visibility. East Pye occupies historic agricultural ancient countryside containing churches, farmsteads, conservation areas, historic lanes and long-established relationships between settlement and countryside. Solar arrays, substations, pylons, highway interventions, traffic, lighting and screening vegetation progressively alter that landscape. Screening may hide some infrastructure but cannot restore an historic open field, recover tranquillity or reverse industrialisation of an approach to a church; in some circumstances the screening itself changes historic openness. Chapter 19 does not adequately assess that landscape-scale accumulation.

For residents, the 'receptor group' methodology is particularly unsatisfactory. A household does not experience landscape, noise, lighting, traffic and loss of tranquillity as separate technical topics. It experiences one altered place. During construction that may comprise HGV movements, piling or HDD noise, temporary lighting, road disruption, visual change, severance and repeated disturbance. During operation it may comprise a permanently changed landscape, substation or BESS noise, security lighting and loss of rural character. Chapter 19 largely identifies significant residential interaction only where already-significant visual and noise effects coincide. That misses the possibility that a significant visual effect combined with individually Minor traffic, lighting and noise effects may produce a materially greater overall amenity burden.

The same is true of PRowS. Users of Boudicca Way, Via Beata and other routes may encounter arrays, substations, fencing, HGVs, crossings, temporary closures, diversions, lighting and loss of tranquillity during a single journey. For promoted and long-distance routes, the relevant cumulative receptor is the experience of the route, not each isolated crossing or viewpoint.

Transport needs a programme-level cumulative analysis. East Pye already depends on call-forward systems, holding areas, restricted delivery periods, one-HGV-at-a-time controls, school-related restrictions, AIL movements and narrow rural roads. Those controls must remain workable when several East Pye construction fronts operate concurrently and when Norwich to Tilbury, Tasway, housing and other projects use the same A47, A140 and local-road network. National Highways has sought greater granularity because a network may appear acceptable at strategic-link level while a particular junction, bridge, village lane or school route becomes the actual limiting constraint.

The cumulative noise evidence is also weaker than Chapter 19 suggests. Construction noise arises from HGVs, piling, general works and HDD; operational noise from substations, BESS, transformers and inverters; replacement and decommissioning bring further construction-type noise. South Norfolk Council specifically states that Chapter 19 cannot conclude that cumulative operational noise will be only Minor Adverse and Not Significant where the BESS and substation noise effects had not been adequately assessed. Its acoustic adviser considered that those installations could significantly affect amenity and potentially amount to statutory nuisance unless significant mitigation were provided.

The socio-economic treatment exposes another asymmetry. Chapter 19 is willing to combine projects when doing so increases employment and skills benefits, but is less precautionary about the corresponding competition for skilled workers, pressure on accommodation and private rental housing, tourism displacement, construction traffic, disruption to rural businesses and pressure on services. The same 47-scheme development pipeline cannot rationally be treated as a real cumulative opportunity when counting benefits but as too uncertain or remote when assessing burdens.

Agricultural effects also need to be considered geographically rather than through national percentages. East Pye removes or disturbs substantial BMV and stewardship land. Other solar, grid, housing and infrastructure projects remove or disturb more in the immediate vicinity. The cumulative issue is the concentration of productive and conservation-managed land loss in the same small rural economy, together with repeated soil compaction, fragmentation of holdings and interference with agricultural drainage—not the proportion of England’s total agricultural area represented by one project.

EMF is another topic where Chapter 19 simply inherits an inadequate underlying assessment. There is no project-wide cumulative model of the combined electrical environment from East Pye’s underground circuits, existing and diverted 400 kV overhead lines, substations, BESS, transformers and inverters, still less their interaction with Norwich to Tilbury or other surrounding electrical infrastructure. There is no hotspot mapping and no adequate cumulative aquatic assessment at electrical crossings. A cumulative chapter cannot cure the absence of the underlying scheme-specific model.

Utilities and major-accident risks likewise need synthesis. East Pye crosses or approaches National Gas Transmission infrastructure, water and sewer assets, telecommunications, railway infrastructure and existing electricity systems. Site 1 combines BESS, 400 kV infrastructure, overhead lines, railway, homes, groundwater, private supplies, fibre-optic cables, aviation and construction access. Site 5 combines major electrical infrastructure with gas infrastructure, hydrological pathways, private supplies and sensitive River Tas ecology. The question is whether the combined emergency scenario has been assessed—not merely whether each individual discipline has an outline management plan. Chapter 19 should provide the cross-hazard synthesis which is otherwise missing.

Tibenham Airfield similarly needs to be treated as one cumulative aviation receptor. The relevant future environment includes East Pye Solar arrays and substations to the north and east, Norwich to Tilbury pylons immediately to the west, Simpson’s Maltings Solar to the south, Tasway Energy Park if it progresses to the north, cranes, lighting, glint and glare and progressive loss or alteration of emergency landing terrain. Each additional project may remove operational flexibility even if its individual obstacle or glare assessment appears acceptable. The cumulative question is whether a safe aviation environment remains around the airfield after the whole foreseeable development pattern is superimposed.

Chapter 19 also materially underestimates the temporal cumulative case. A 60-year NSIP is not simply ‘construction → passive operation → decommissioning’. The Scheme anticipates wholesale or substantial solar-panel replacement, repeated BESS replacement—potentially up to five cycles—transformer replacement and associated reuse of compounds, roads and lifting infrastructure. These are foreseeable intermediate construction phases involving renewed HGV traffic, noise, soil disturbance, waste, lighting and ecological disturbance. By the time they occur, mitigation habitats may have matured and become valuable receptors in their own

right. They therefore need to be assessed as separate cumulative phases, not absorbed into 'operation'.

The assumption that decommissioning will simply be construction in reverse is equally unsafe. After six decades, the receiving environment will be different: mitigation trees and hedges may be mature, new habitats established, soils changed, climate conditions altered, settlements expanded and some electrical infrastructure intended to remain. Decommissioning will also generate a different waste stream, involving removal or recycling of ageing solar, battery and electrical equipment. Removing infrastructure may damage mature mitigation habitats and soils; leaving it may prevent restoration. It is also unclear who will be responsible for decommissioning, and whether they will have adequate skills or funds to achieve this.

That leads to a major internal inconsistency about the post-decommissioning end state. The National Grid Substation and some grid infrastructure may remain. Mature screening woodland and hedges may remain. BNG habitats may remain. Underground ducts, cables, foundations, drainage and access works may remain in whole or part. If those elements remain, the historic and agricultural landscape is not restored to its former condition. If they are removed, further ecological, soil, traffic, waste and hydrological effects arise. Landscape, ecology, heritage, agriculture, soils and water cannot each assume a different end state because that produces the most favourable conclusion within that chapter. One defined removal-and-retention scenario is required across the ES.

The claimed Significant Beneficial operational ecological in-combination effect is also particularly vulnerable. Chapter 19 assumes that cessation of conventional farming, fertiliser and chemical inputs combined with habitat creation will produce ecological and water-quality benefits. But substantial parts of East Pye have already been subject to Countryside or Environmental Stewardship management. The existing baseline therefore includes conservation-managed fields, margins and habitat which already support substantial farmland-bird populations. The Applicant records 81 skylark territories, 70 of them within areas of permanent development, together with other Red List breeding birds. Expiry of a stewardship agreement does not erase the ecological condition created by that management.

The same claimed benefit is difficult to reconcile with the Applicant's own nationally important bat baseline and the peer-reviewed evidence cited in the WR showing reduced bat activity at operational solar farms, including along retained field boundaries. New grassland, hedges and reduced fertiliser inputs may produce some benefits, but they do not demonstrate that barbastelle maternity-colony function, open-land bird habitat, commuting routes or prey networks will remain equivalent. BNG cannot answer those species-specific functional questions. Chapter 19 therefore has not demonstrated a Significant Beneficial ecological effect; it has assumed one by comparing the Scheme with an oversimplified intensive-agriculture baseline.

The broader design implication is the most important point in Chapter 19. East Pye Solar depends upon numerous mitigation systems working simultaneously: landscape

planting, ecological buffers, drainage, highway controls, acoustic barriers, lighting restrictions, groundwater protection, firewater containment, aviation safeguarding, gas-pipeline requirements, BNG and eventual agricultural restoration. Yet many of those measures compete for the same physical space or create effects in another discipline. A new haul road may solve access while harming soils, hedges and drainage. A noise barrier may reduce sound but increase visual harm. Planting may screen infrastructure but harm open-country bird habitat or historic openness. Additional drainage may require more land. Retaining BNG habitat may prevent agricultural restoration. Chapter 19 assumes the separate mitigation packages will all work; it does not demonstrate that they can all coexist within one physical design.

That is why cumulative assessment becomes a question of site selection as well as EIA methodology. East Pye intersects a nationally important bat landscape, six directly adjoining ancient woods, extensive BMV agricultural land, sensitive heritage assets, chalk-stream systems, Principal Aquifers and private water supplies, constrained rural roads, aviation interests, National Gas infrastructure, existing and proposed grid infrastructure and quiet rural residential receptors. Several of those constraints occur together at the same Sites. The very density of mitigation required is evidence of the underlying environmental constraint of the location.

A well-sited infrastructure project will require mitigation. The distinction at East Pye Solar is the extent to which environmental acceptability depends upon numerous independent controls all succeeding simultaneously and without creating new effects elsewhere. At some point mitigation ceases to be refinement of an environmentally suitable project and becomes the mechanism by which an intrinsically over-constrained location is made to appear acceptable on paper. Chapter 19 provides substantial evidence that East Pye has crossed that line.

In conclusion: Chapter 19 does not demonstrate that the cumulative and in-combination effects of East Pye are acceptable. Its methodology systematically narrows the evidence before the cumulative question is asked: Negligible effects are removed; receptors are aggregated; the scale of interaction is expressly left unidentified; unresolved assumptions and deferred mitigation from Chapters 6–18 are imported unchanged; external projects are treated inconsistently; construction phasing is insufficiently defined; replacement cycles are largely omitted; and decommissioning proceeds from an incoherent future baseline. Each weakness tends to suppress, rather than reveal, the environmental worst case.

More fundamentally, Chapter 19 fails the test it should have been designed to answer: whether there is one physically deliverable East Pye design in which access, drainage, groundwater protection, landscape mitigation, ecological connectivity, heritage protection, agricultural restoration, noise control, aviation safeguarding, utilities, fire safety and decommissioning can all be achieved simultaneously. The Environmental Statement contains numerous topic-specific mitigation solutions, but it has not demonstrated that those solutions are mutually compatible. That is not merely a deficiency in presentation; it goes to whether an environmentally coherent Scheme actually exists within the DCO envelope.

The concentration of cumulative constraints is itself material evidence of poor site selection. The same receptors are repeatedly subjected to different parts of East Pye and to a wider development pattern of solar, BESS, transmission infrastructure and housing. The Applicant cannot obtain a reliable ‘Not Significant’ conclusion by dividing that physical reality into small effects, separate chapters, broad receptor groups and different project boundaries. Receptors experience one East Pye Solar Scheme, not nineteen Environmental Statement chapters.

Accordingly, the repeated ‘Not Significant’ conclusions in Chapter 19 should be afforded little weight unless the Applicant provides a genuinely receptor-led, spatially and temporally quantified cumulative assessment; models a realistic maximum simultaneous construction case; includes reasonably foreseeable external development on a consistent basis; resolves the mitigation conflicts between technical disciplines; assesses replacement and decommissioning against coherent future baselines; and demonstrates at least one complete design in which every relied-upon environmental control can actually coexist. If that exercise identifies the need for substantial relocation, reduction or removal of development, that is evidence that the present Scheme is not environmentally acceptable as designed. Unless those defects can be remedied within the Examination without materially altering the assessed project, Chapter 19 materially supports refusal of development consent.

Chapter 20: Residual Effects

The Applicant’s Final Summary Does Not Represent the True Environmental Balance

Chapter 20 exposes the central weakness in the Applicant’s environmental case. It presents a strikingly asymmetric final picture: extensive Significant adverse landscape and visual effects are expressly acknowledged, yet almost every other environmental topic is reduced to ‘no significant residual effect’ once mitigation is assumed. At the same time, substantial beneficial effects are attributed to ecology, water quality, employment, skills and climate. That outcome is difficult to reconcile with either the Applicant’s own underlying evidence or the continuing concerns of statutory and specialist consultees. Chapter 20 is therefore not an independent confirmation that the Scheme is environmentally acceptable. It is the end-product of the assumptions, significance judgments, incomplete baselines and mitigation dependencies contained in the preceding chapters.

The Applicant’s own landscape evidence provides the clearest test of scale. Chapter 20 records 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. Sites 1, 7 and 8 experience Major Adverse landscape effects, while residents, PRoWs and promoted recreational routes experience repeated Major or Major-to-Substantial visual effects. The operational assessment remains materially adverse: Major effects occur at the BESS area, Site 1 and Site 8, with widespread Moderate effects elsewhere. Even at

Year 15, Significant effects remain on Tas Tributary Farmland, Great Moulton Plateau Farmland, Sites 1, 7 and 8 and numerous residential, recreational and PRow receptors.

That is not evidence of a development whose impacts have been successfully absorbed by the landscape. It demonstrates landscape-scale transformation which remains significant after fifteen years of planting and mitigation. The planting relied upon to screen the development is itself part of that transformation. Existing open and semi-open agricultural relationships between villages, medieval churches, farmsteads, lanes, woodlands, hedgerows and river valleys in this area of ancient countryside are replaced by a deliberately engineered landscape of screening woodland, new hedges, energy infrastructure and enclosed fields. Reduced visibility of panels after fifteen years is therefore not equivalent to restoration of landscape character. The Applicant's own conclusions establish that East Pye would require the South Norfolk landscape to be substantially and enduringly reorganised around the Scheme.

That admitted landscape transformation provides the proper context for the much more optimistic conclusions reached elsewhere in Chapter 20. The historic environment is the most obvious example. Chapter 20 reports no significant residual cultural-heritage effect even though Historic England describes an extensive agricultural historic landscape containing important rural churches, listed buildings and small conservation areas centred on medieval settlement. Its application-stage evidence identifies concerns involving a Scheduled Monument, two Grade I buildings, two Grade II* buildings, 42 Grade II buildings and four Conservation Areas, acknowledges residual policy harm and confirms that parts of the Order Limits remain incompletely archaeologically evaluated.

The difficulty is not simply that some individual heritage judgments are disputed. Landscape and heritage describe the same physical place. A Scheme which the Applicant accepts will cause Major and long-term landscape change around medieval settlements, rural churches and historic farmsteads cannot rationally be treated as having no meaningful residual historic-environment consequence merely because individual asset effects have been placed below an EIA significance threshold. Setting is not limited to direct visibility. It includes the relationship between an asset and its rural surroundings, approaches, openness, tranquillity, historic land use and the spatial relationship between church, village, lane and field. Screening may reduce the visibility of panels while itself damaging that openness. Archaeological recording similarly preserves information, not the archaeological resource which is destroyed. Where parts of the cable corridor and other land remain unevaluated, the final residual effect cannot properly be treated as settled before it is known whether archaeology requiring preservation in situ exists.

The ecological conclusions are still more difficult to sustain. Chapter 20 predicts no Significant adverse construction or decommissioning ecological effect, but assigns Moderate Beneficial operational effects to bats, skylark, hedgerows, ponds, rivers, woodland, badger, water vole and otter. That conclusion sits uneasily with the Applicant's own finding that the bat assemblage is of national importance, with widespread barbastelle activity and multiple maternity colonies whose Core

Sustenance Zones overlap the entire development landscape. The relevant receptor is not an isolated roost or retained hedge but an existing functioning network of maternity colonies, satellite roosts, ancient and other woodland, mature trees, hedgerows, dark corridors, ponds, watercourses and foraging habitat.

The specialist evidence shows that this network is not yet fully understood. The Norfolk Barbastelle Study Group confirmed a maternity colony at Little Wood, with a pre-parturition emergence count of 36 and an estimated post-parturition colony of approximately 55 bats, identified evidence of probable additional maternity colonies and called for further radiotracking and woodland investigation. Other woodlands contain known maternity colonies while others remain insufficiently surveyed. There has also been no proper full botanical survey, notwithstanding the risk to roadside verges, hedgebanks, field margins and other semi-natural habitats directly exposed to highway, access and cable works. Norfolk Wildlife Trust continues to require additional information and design refinement before it considers the Scheme ecologically acceptable, while Natural England continues to treat protected-species licensing as an unresolved matter. It is therefore premature to describe the operational effect on bats and other ecological receptors as beneficial before the complete functional baseline and the effectiveness of the mitigation have been established.

The claimed ecological benefits also conflate habitat quantity with ecological function. Conversion of arable land to grassland, additional woodland and hedgerow planting may produce habitat units, but a BNG metric does not demonstrate functional equivalence. Existing Countryside Stewardship land already performs ecological functions for farmland birds. Lapwing require extensive open ground and sightlines; skylark require open nesting and foraging habitat; turtle dove require particular combinations of nesting vegetation, seed-rich habitat and water. Enclosing those areas with panels, fencing and woody planting cannot automatically be characterised as an ecological improvement simply because the post-development habitat receives a higher metric score.

The same applies to bats. A mature hedgerow connecting maternity roosts to established feeding habitat cannot be replaced instantly by an equivalent number of metres of new hedge elsewhere. Its value depends upon location, maturity, darkness, continuity, tree structure and its relationship with the wider colony network. Norfolk Wildlife Trust expressly questions the assumption that relatively small hedge breaks are harmless to barbastelle movement. There is an unavoidable temporal deficit where replacement habitat takes decades to acquire the function which existing habitat possesses at the point of loss. Ancient woodland relationships, veteran-tree systems and long-established dark commuting routes are still less replaceable.

Chapter 20's treatment of water demonstrates the same optimism. It reports no Significant residual construction effect but assigns a Major Beneficial operational effect, principally because conventional agricultural fertiliser and chemical inputs are expected to decline. That potential benefit cannot be considered in isolation from the unresolved risk pathways created by the development itself. The Environment Agency has raised issues concerning groundwater-surface-water interaction, piling and deep

foundations, underground cabling, watercourse crossings, pollution prevention, BESS and substation design, private and public water supplies, historic contamination, fisheries and aquatic ecology. Foundation Works Risk Assessments and some HDD hydrogeological assessments remain deferred until after consent.

The drinking-water baseline is particularly important. The Environment Agency originally identified 35 private water supplies within 250 m whose precise locations and/or abstraction strata were uncertain and required consideration over greater distances because of the Principal Aquifer setting. Six licensed groundwater abstractions occur within 1 km, including a public-water-supply borehole whose Source Protection Zone extends into the Scheme area. Proximity mapping does not establish abstraction depth, groundwater flow direction, hydraulic connectivity, contaminant travel time or whether piling, trenching, HDD, altered recharge or a pollution incident could create a pathway to a supply.

The LLFA also continues to question impermeable-area assumptions, infiltration evidence and drainage information in a landscape containing downstream communities with existing flood problems. The Environment Agency has unresolved concerns about fish, European eel, aquatic invertebrates, watercourse crossings and pollution control. Reduced agricultural fertiliser use may therefore be beneficial in one respect, but it cannot neutralise possible effects from soil compaction, drainage alteration, piling, dewatering, cable trenching, HDD, transformer oil, BESS pollutants, firewater or sediment. Chapter 20 effectively credits the benefit before the Applicant has demonstrated control of the competing harms.

The soils conclusion contains an equally important internal contradiction. The Applicant itself accepts ‘irreversible loss or downgrading’ of BMV agricultural land as a Moderate Adverse Significant effect. The WR records approximately 829.1 ha of surveyed BMV land within the solar Sites, approximately 78.7% of that surveyed area. Natural England continues to seek complete ALC information for the Cable Route Corridor, avoidance of peat, avoidance of permanent infrastructure on BMV land and adequate soil safeguards. Yet Chapter 20 thereafter presents operational and decommissioning soil effects largely as non-significant and reduces wider agricultural consequences to Minor Adverse.

That distinction is artificial. The Scheme would affect slowly permeable and structurally vulnerable soils through initial construction, haul routes, compounds, trenching, soil storage, permanent tracks, drainage interference and foundation works. It then permits future panel replacement, repeated BESS replacement and other heavy maintenance before decommissioning. Temporary occupation does not mean temporary soil effect: Natural England itself recognises that temporary construction works can cause permanent ALC degradation. Nor is a commitment to restore land to comparable agricultural condition proof that the existing grade will actually be recovered after six decades of altered management and repeated disturbance.

This feeds directly into Chapter 20’s reliance on the description of East Pye as ‘temporary’. Sixty years is not a short environmental interval. The Applicant anticipates

full panel replacement and potentially up to five BESS replacement cycles. Those are foreseeable construction-like phases involving renewed traffic, lifting equipment, compounds, waste movements and disturbance. During the same period mitigation woodland and hedgerows may mature, ecological communities may reorganise, soils and drainage may change and settlements and infrastructure around the Scheme may evolve.

Moreover, the Scheme is not wholly temporary. The National Grid Substation and elements of the grid connection are expected to remain. Underground ducts, joint bays or foundations may remain in the ground; foundations may be cut off below ground rather than completely removed; permanent access and drainage associated with retained transmission infrastructure may remain; and mature mitigation planting may itself be retained. The proposed National Grid compound is substantial and new or replacement pylons may remain as part of the transmission network. The post-decommissioning landscape therefore cannot simply be assumed to revert to the pre-development baseline.

The distinction is important: **removability of solar panels is not reversibility of environmental change**. Historic openness cannot necessarily be recreated after sixty years. Archaeological remains cannot be reinstated after excavation. Ancient ecological relationships and mature commuting corridors cannot be recreated on demand. BMV soils may not recover if their structure or drainage is permanently altered. Damage to a vulnerable aquifer or drinking-water supply may be difficult or impossible to reverse. Countryside Stewardship habitat and community experience of tranquillity cannot retrospectively be restored for the generation which experiences the development. Some effects therefore require avoidance rather than progressively more elaborate mitigation.

Transport demonstrates a different but equally important problem with Chapter 20's use of 'Not Significant'. Chapter 20 predicts no Significant residual construction transport effect, yet National Highways maintains a formal objection requiring further evidence on the A47/A140 junction, cumulative construction traffic, worker travel and Requirement 15. At local level, important routeing and access issues remain concerning Sites 7–10, Hall Lane, passing places, highway boundaries, vegetation clearance, local geometry and AIL delivery.

An AIL route illustrates why EIA significance and physical deliverability are not the same question. A large transformer cannot be divided into smaller deliveries. If no route is physically capable, structurally suitable, legally available and environmentally acceptable, the component cannot reach its destination. Traffic management cannot solve that binary problem. Nor can a new internal haul road automatically be treated as mitigation where it requires additional land, hedge removal, drainage works, soil compaction, watercourse crossings or ecological disturbance. Chapter 20's single 'no significant residual effect' conclusion obscures rather than resolves those interactions.

The 'Other Environmental Matters' conclusion is similarly over-compressed. Norfolk Gliding Club continues to identify four separate aviation-safety mechanisms at

Tibenham—glint and glare, thermal updrafts, engine failure after take-off and bird strike—and argues that only the first has been substantively addressed by the Applicant's aviation consultant. These concerns concern operational safety, including emergency landing opportunities, rather than merely visual amenity. National Gas likewise continues to require satisfactory protective provisions for the FM05 Yelverton–Stowmarket high-pressure feeder main and associated cathodic-protection equipment. The Scheme places major new high-voltage infrastructure, gas infrastructure, BESS, aquifers, private water supplies, residential receptors and aviation interests into overlapping physical environments. Low probability does not make a credible high-consequence event environmentally irrelevant.

A further systemic problem is Chapter 20's reliance upon mitigation which is not yet final. Residual effects are meaningful only after the measures relied upon to produce them have been adequately defined, demonstrated to be effective and legally secured. Yet important Ground Investigation and Foundation Works Risk Assessments remain post-consent; some HDD hydrogeological assessment is deferred; access arrangements remain subject to further agreement; ecological protection depends upon later detailed plans; lighting controls are not fully fixed; drainage remains subject to detailed design; archaeological mitigation depends upon further evaluation; replacement and decommissioning arrangements remain incomplete; and statutory undertaker protective provisions continue to be negotiated.

The Environment Agency goes further. Its Relevant Representation identifies permitted preliminary works which are not adequately covered by the CEMP, creating what it describes as an unmitigated risk of environmental harm, and objects to drafting such as 'substantially in accordance with' where it weakens control. National Gas continues to seek protective provisions; National Highways seeks stronger requirements and additional evidence; Historic England seeks further archaeological investigation. These are the very controls upon which the Applicant's final Not Significant conclusions depend. A predicted future mitigation outcome is not yet an established residual effect.

Chapter 20 also fails to capture the burden experienced by actual receptors because it summarises by technical discipline. A resident experiences changed landscape, HGV traffic, noise, lighting, road disruption and loss of tranquillity together. A medieval church experiences new arrays, substations, traffic, road works, noise, screening vegetation and loss of open agricultural setting together. A barbastelle colony experiences lighting, hedge severance, disturbance, woodland-edge change, fencing, altered prey resources and vehicle movements together. A private water supply may be exposed simultaneously to altered recharge, piles, trenches, contaminant mobilisation, drainage changes and transformer or BESS pollution pathways. A chalk stream receives runoff, sediment, groundwater changes, cable crossings, HDD and accidental pollution through one connected system. Separating those effects into individually Minor or Not Significant categories can materially understate the aggregate receptor experience.

External cumulative effects compound that defect. South Norfolk Council and Norfolk County Council have identified Tasway Energy Park, Norwich to Tilbury and the wider

concentration of solar, BESS, transmission and infrastructure development as matters requiring assessment. The LLFA has specifically supported inclusion of proposed but unconsented solar and BESS projects because similar construction programmes may overlap and because cumulative drainage and flood consequences may extend downstream beyond individual project boundaries. Historic England has identified cumulative interaction with Tasway, while National Highways considers the cumulative construction-traffic evidence insufficiently granular.

Uncertainty about the exact programme of another development is not evidence that cumulative effects do not arise. Tasway Energy Park may affect the same Great Moulton/Tivetshall landscape, roads, ecological systems, heritage receptors and aviation environment. Norwich to Tilbury is a major linear transmission project with potential effects upon many of the same landscapes, roads, hedgerows and historic settings. Housing growth and other infrastructure add further pressure upon labour, accommodation, road capacity, drainage and settlement character. Reasonably foreseeable scenarios should therefore be tested rather than excluded because programme overlap is uncertain.

Chapter 20 is also materially asymmetric in its treatment of benefits and harms. Adverse effects are repeatedly reduced because planting will mature, mitigation is expected to work, impacts are temporary or later controls will be agreed. Benefits are treated with much greater certainty even where they depend upon equally uncertain future events. Construction employment in South Norfolk is classified as Major Beneficial and skills as Moderate Beneficial, while the underlying evidence indicates much weaker resident-based employment benefit. South Norfolk Council's evidence recorded that, of an earlier estimate of 1,006 direct and indirect jobs, only 73 were expected to be filled by South Norfolk residents and 501 from outside the region. There are no binding local-employment percentages or equivalent secured outcomes commensurate with the weight claimed.

Tourism is reduced to Minor Adverse notwithstanding the rural visitor economy associated with churches, the Waveney Valley, Boudicca Way, walking, cycling and riding, countryside accommodation and heritage. Ecological benefits are treated as established although the botanical and barbastelle baselines remain incomplete and no account has been taken of potential harm to them. Water benefit is treated as Major despite outstanding regulatory concerns. Climate benefit is treated as secure despite the unresolved whole-life GHG accounting, replacement assumptions, grid-intensity assumptions, BESS position and uncertainty over actual exported electricity identified in Chapter 6. The same evidential rule should apply to both sides of the balance: a claimed effect should receive weight according to whether it is demonstrated, deliverable and secured.

That leads to the most important planning point in Chapter 20. BEPS does not dispute the national need for renewable electricity. The question is whether the **specific public benefit of East Pye Solar**, at approximately 500 MW, in this location and configuration, is sufficient to justify the specific harm it causes. The Applicant's alternatives exercise treated approximately 500 MW as the starting requirement and sought sufficient land to

accommodate that output. Smaller or materially different schemes were disadvantaged because they did not reproduce the predetermined capacity. The assessment therefore asks how 500 MW can be fitted into the landscape rather than what scale and configuration the environmental capacity of this sensitive, 'nature-dense' landscape of ancient countryside could accommodate.

The need case does not answer that defect. No quantified T7 deficit has been identified which would arise if East Pye were refused. Gate 2 status is relevant to connection reform but does not itself demonstrate project-specific locational necessity. The substantial regional solar pipeline remains relevant to the weight given to the argument that these particular harms must be accepted here. The BESS also does not presently have the equivalent connection position relied upon for the solar generation element, so benefits attributed to the integrated solar-and-storage Scheme cannot simply be treated as equally certain.

The correct question is therefore not whether renewable generation is needed nationally. It is: **what material regional or system deficit would arise if East Pye were not built, and why does that deficit require 500 MW to be delivered across these ten Sites rather than through a smaller, less dispersed or less environmentally constrained solution?** Chapter 20 does not answer that question.

This produces a clear proportionality problem. On the harm side, there are admitted Significant landscape effects persisting beyond Year 15; irreversible loss or downgrading of BMV land; unresolved heritage harm and archaeology; a nationally important bat assemblage and multiple barbastelle maternity-colony networks; incomplete botanical and aquatic evidence; sensitive aquifers and drinking-water receptors; continuing highway objections; aviation concerns; and repeated whole-life construction effects. On the benefit side, there is a nationally important renewable-energy objective but no demonstrated locational requirement that those particular harms be incurred at East Pye. The planning balance is not between East Pye's environmental harms and 'net zero' as a whole. It is between East Pye's harms and East Pye's additional, demonstrable and secured contribution relative to available alternatives and the existing regional pipeline.

Chapter 20 also has an important consequence for compulsory acquisition. Section 122 of the Planning Act requires both that the land or rights are required for the development and that there is a compelling case in the public interest. That test becomes significantly harder to satisfy where parts of the authorised development remain optional or unresolved. NGET has not confirmed that the precise Site 1B National Grid solution sought through the DCO will ultimately be constructed or used; granting the DCO would not itself oblige NGET to use that solution. The final construction-access arrangements are also not fully resolved. Yet the Applicant seeks compulsory powers across the land necessary to preserve those implementation options.

System 'optionality' or allowance for future attrition in the wider generation pipeline is not the same thing as demonstrating that particular private land must be compulsorily

acquired now. Nor does compensation remove the need to establish necessity. Where the connection, access solution or design changes, land presently included for substations, cables, access, drainage, landscaping, construction compounds or rights may cease to be needed. The compulsory-acquisition case therefore needs to be tested plot by plot against a confirmed deliverable Scheme, including whether permanent freehold is actually necessary rather than lesser rights or temporary possession.

Chapter 20 does not show that East Pye has limited residual environmental effects. It shows how extensive harm has been progressively filtered through separate methodologies until almost everything other than landscape harm appears in the final tables as Not Significant, while uncertain future benefits are simultaneously credited as Significant or Major Beneficial. The Applicant's own evidence, together with the continuing positions of the Environment Agency, Historic England, Natural England, Norfolk Wildlife Trust, National Highways, Norfolk County Council, National Gas and aviation interests, demonstrates that the environmental case is not settled to anything approaching the degree of certainty implied by those tables.

The fundamental defect is not simply that more mitigation is required. It is that the Scheme has not been shown to have exhausted avoidance. The Applicant has retained the approximate 500 MW scale, ten-Site geography and extensive cable and grid infrastructure and then sought to make the receiving environment accommodate them through planting, buffering, acoustic measures, drainage engineering, route management, habitat creation and future management plans. In several instances those measures themselves create further landscape, ecological, heritage, soil or hydrological effects. The resulting complexity is evidence of an over-constrained site and design, not proof of environmental suitability.

Nor can the remaining harm properly be dismissed as temporary or reversible. Significant landscape change persists after fifteen years; BMV loss or downgrading is expressly acknowledged as irreversible; archaeological destruction cannot be reversed; mature ecological networks cannot be recreated on demand; vulnerable groundwater cannot safely be restored after contamination is allowed to occur; and part of the transmission infrastructure may remain indefinitely. East Pye would therefore leave a materially different landscape even after the generating equipment was removed.

The final balance must consequently be based on what has actually been demonstrated. On the adverse side are extensive, site-specific, long-term and in some cases irreversible effects. On the beneficial side, several claimed benefits remain conditional upon future ecological establishment, mitigation performance, local employment capture, BESS delivery, grid utilisation and assumptions about whole-life carbon performance. Those prospective benefits cannot properly be afforded greater certainty than the harms which already exist in the evidence.

Most importantly, no project-specific case has been established showing that approximately 500 MW must be delivered through this particular dispersed Scheme in

this particular South Norfolk landscape. Generic national renewable-energy need does not answer that question, and Gate 2 status does not establish it. Where the Applicant has not shown that the environmental harm is genuinely unavoidable, has not demonstrated that all relied-upon mitigation is effective and secured, and has not established a location- and scale-specific public benefit sufficient to justify the remaining harm, the residual-effects case fails.

The ExA should therefore not treat Tables 20.1–20.4 as the environmental balance. They materially understate the consequences of the Scheme. The proper conclusion from the evidence as a whole is that East Pye has not been demonstrated to be an environmentally coherent, proportionate and deliverable project within the present DCO envelope. Unless the outstanding evidence results in substantial avoidance, reduction and redesign capable of removing these conflicts during Examination, development consent should not be recommended. Further layers of mitigation would not cure the central problem: the Scheme is requiring the landscape to be reshaped around the project, when the project should have been reshaped—or relocated—to respect the environmental capacity of the landscape.

Cumulative Case Against Development Consent

The evidence provided by BEPS across the three volumes of its Written Representations leads to a substantially stronger conclusion than any single chapter considered alone.

1. The Applicant has not established project-specific necessity commensurate with the harm. National policy strongly supports additional renewable generation, but that does not establish that East Pye Solar itself is indispensable. The T7 East Anglia pipeline already exceeds the Ofgem/NESO 3,300 MW modelling envelope; NESO's Gate 2 regional test used only operational capacity; the BESS does not share the solar project's Gate status and has no mechanism to proceed to Gate 2; the final engineering-backed transmission solution is unresolved; and no disclosed Scheme-specific analysis establishes that East Pye will avoid material curtailment or provide the claimed consumer-system benefit.
2. The alternatives evidence does not establish that this environmentally sensitive location represents the least harmful reasonable way of delivering the claimed benefit. The land package was assembled around Norwich Main before that connection was established as viable. When Norwich Main failed, the Applicant retained the land package and searched for a replacement connection which would serve it. The 500 MW scale was likewise treated as a premise rather than an outcome of environmental capacity assessment. The land options were agreed before detailed surveys revealed the multiple constraints impacting each land parcel and the area in general.
3. The development for which consent and compulsory powers are sought is not yet sufficiently settled in several material respects. The BESS is severable and

differently connected; NGET has not confirmed Site 1B as the final connection solution; the application permits extensive design-envelope flexibility; major AIL and local access routes remain unresolved; and the Scheme expressly includes repeated replacement and infrastructure capable of surviving solar decommissioning.

4. The receiving environment is substantially more constrained than a conventional agricultural solar site. The Applicant itself establishes a nationally important bat assemblage; the Scheme affects overlapping barbastelle maternity-colony landscapes with core sustenance zones covering the entire order limits, six adjoining ancient woods, BMV soils, sensitive aquifers and private water supplies, chalk-stream systems, high-grade heritage assets, tranquil rural landscapes and constrained historic roads.
5. Several matters central to environmental acceptability remain unresolved rather than merely awaiting detailed implementation. The ecology baseline lacks a complete botanical and functional species picture; HFCL finds a significant lack of confidence in the water assessment; intrusive ground investigation and foundation-risk work are deferred; the final highway access architecture is not agreed; final noise plant and mitigation are not fixed; GAAC and Norfolk Gliding Club state the infrastructure risks a threat to human life; and the EMF assessment is not project-specific. These are not simply matters of selecting the colour of equipment or the precise position of a drain. They may determine whether elements of the Scheme can be constructed at all, or whether they require relocation or removal.
6. Substantial harm is already established even on the Applicant's own case. Significant landscape effects persist after 15 years of mitigation. Independent heritage evidence identifies harm to 36 designated assets. The Scheme contains 829.1 ha of surveyed BMV land. Major night-time HDD noise is predicted at identified receptors before duration is used to reduce EIA significance. NCC says the current Sites 7–10 transport strategy cannot be supported, while National Highways maintains its objection. Norfolk Wildlife Trust identifies the scheme as an ecological 'risk' in this 'nature-dense' landscape.
7. The mitigation case does not demonstrate that all of those constraints can be resolved simultaneously. Landscape screening alters openness and heritage setting. Internal haul routes may create ecological, drainage and land impacts. Foundation changes affect noise, ground conditions and groundwater. Habitat creation cannot demonstrate maintenance of protected-species function. Future management plans cannot compensate for a baseline that has not established what must be protected.
8. the Applicant seeks compulsory powers of unusual breadth before those matters are resolved. Section 122 requires a compelling public-interest case for the particular land interest acquired. That case is materially weakened where

the development is severable, the Grid solution is unconfirmed, land may become unnecessary, and permanent freehold acquisition is sought where the Applicant's own commercial arrangements contemplate leases.

Overall Conclusion

As a whole, BEPS's Written Representation demonstrates two propositions which are decisive to the planning balance:

First, East Pye Solar is not a finished or sufficiently resolved project. Material questions remain over the final National Grid connection solution, the relationship between the solar and Gate 1 BESS elements, the construction envelope, highway access and abnormal-load routes, the ecological baseline, private water supplies, the hydrogeological model, foundations and HDD, operational noise, EMF, BESS safety, decommissioning and long-term restoration. Several of those matters may determine whether parts of the Scheme can be constructed at all, whether infrastructure must be relocated or reduced, and whether the environmental effects remain within the assessed envelope. They are therefore questions of principle and deliverability, not merely post-consent detail.

The transport case illustrates the wider problem particularly clearly. Norfolk County Council states that the submitted strategy for Sites 7–10 'cannot be supported' and requires a materially different internal-haul-route architecture, while National Highways maintains outstanding objections. The water case is equally serious: independent review identifies 15 substantive deficiencies and a 'significant lack of confidence' that effects on the water environment are properly understood or capable of mitigation. The ecological baseline remains incomplete despite the Applicant's own evidence establishing a nationally important bat assemblage and multiple barbastelle maternity-colony networks.

Secondly, the harms are not hypothetical. The Applicant itself identifies extensive Significant landscape and visual effects, including Major effects persisting to Year 15. Independent heritage evidence identifies harm to 36 designated assets where the Applicant identifies harm to two. Approximately 829.1 hectares of surveyed land is BMV agricultural land, much of it slowly permeable and seasonally wet heavy clay whose full restoration after repeated disturbance over 60 years has not been demonstrated. Night-time HDD is predicted to place 15 receptors above SOAEL. The Scheme also concentrates major electrical infrastructure beside sensitive groundwater, private water supplies, strategic gas and rail infrastructure, aviation receptors, protected ecology and nearby communities.

Those harms cannot be dismissed as the ordinary local consequences of nationally necessary infrastructure. The national need for renewable energy under EN-1 is substantial, but it does not establish that East Pye itself is indispensable or that this location is necessary. The T7 evidence shows an extensive advanced solar pipeline in this region, while East Pye's Gate 2 status does not independently establish locational necessity. There is no apparent mechanism by which the BESS can proceed to Gate 2

status, the final NGET solution is unresolved and the Applicant's claimed whole-life carbon benefit itself contains material calculation and methodological errors.

The mitigation case does not cure the problem. Much of the Scheme's environmental acceptability depends upon later surveys, later engineering, later management plans and future detailed design. Screening, buffers, acoustic barriers, habitat creation, drainage measures and later risk assessments may reduce effects, but they also demonstrate that the chosen landscape is being required to accommodate a development whose conflicts should first have been avoided through site selection, scale and design.

The whole-life case further weakens the description of East Pye Solar as temporary. The Scheme allows major replacement cycles during its 60-year life, significant grid infrastructure may remain permanently, restoration of BMV soils is not assured and the newly disclosed private landowner decommissioning securities do not yet demonstrate a coordinated, publicly enforceable and insolvency-resilient whole-Scheme restoration mechanism.

The cumulative conclusion is stark: too much is already known about the harm, and too little is yet known about the solution.

The Application asks the Secretary of State to accept significant and enduring environmental harm now while allowing essential questions of design, deliverability and mitigation to be resolved later. That reverses the proper planning sequence. Development consent should follow demonstration that an environmentally acceptable and deliverable project exists; it should not be granted in the expectation that such a project will be designed after consent.

The planning balance therefore weighs decisively against East Pye Solar. The harms are extensive, cumulative, long-term and in important respects irreversible. Several are Significant on the Applicant's own evidence. The project-specific and locational benefits relied upon to outweigh them are materially less certain than the Application suggests.

BEPS accordingly submits that the Application is unfinished, premature and fundamentally disproportionate to the environmental capacity of the landscape selected for it. The Examining Authority should recommend refusal, and the Secretary of State should refuse to make the Development Consent Order.

AI notice: BEPS's bespoke closed-project GPT has been used to create this summary from BEPS's three-volume Written Representation, as the task was too large and complex to do manually with this degree of accuracy. The content has been checked, edited and signed off by a human before submission. The contents is the responsibility of BEPS.