

I am attaching the formal Written Representations of the Saxlingham Nethergate Parish Council.

The Parish Council has one of its members on the Steering Committee of BEPS and we fully support their Written Representations.

I wish to stress that the PC strongly objects to the application and, particularly, to the proposed AIL route through our village and its two conservation areas. We ask that the applicants be required to have prepared a full topographical survey of Church Hill from the War Memorial up to and including the village school and, if the application is approved, pre-construction structural surveys be carried out on all listed buildings along the proposed AIL route.

The experience of local residents near the Cleve Hill Solar Park in Kent, the first NSIP solar park to become operational, is that the use of single width roads and driven piles cause high levels of nuisance and noise to local communities. Based on this experience, we ask that no single-track roads and driven piles are approved as part of this application.

We ask that the ExA visit Church Hill, the junction of Saxlingham Green with Broaden Lane and Saxlingham Green to see the implications of the proposed AIL route.

Finally, in response to the ExA's question 1.2, we support the principle of a Community Liaison Group if the final decision is to approve the application.

I am attaching the formal Written Representations of the Saxlingham Nethergate Parish Council.

The Parish Council has one of its members on the Steering Committee of BEPS and we fully support their Written Representations.

I wish to stress that the Parish Council strongly objects to the application and, particularly, to the proposed AIL route through our village and its two conservation areas. We ask that the applicants be required to have prepared a full topographical survey of Church Hill from the War Memorial up to and including the village school and, if the application is approved, pre-construction structural surveys be carried out on all listed buildings along the proposed AIL route.

The experience of local residents near the Cleve Hill Solar Park in Kent, the first NSIP solar park to become operational, is that the use of single width roads and driven piles cause high levels of nuisance and noise to local communities. Based on this experience, we ask that no single-track roads and driven piles are approved as part of this application.

We ask that the ExA visit Church Hill, the junction of Saxlingham Green with Broaden Lane and Saxlingham Green to see the implications of the proposed AIL route.

Finally, in response to the ExA's question 1.2, we support the principle of a Community Liaison Group if the final decision is to approve the application.

Saxlingham Nethergate Parish Council

Written Representations submitted in response to East Pye Solar

PINS Reference: EN0110014

Our Reference: 

Land Parcels 7D and 7F

Submitted by Saxlingham Nethergate Parish Council

Use of Artificial Intelligence

This Written Representation has been prepared by local residents and the Saxlingham Nethergate Parish Council in response to a draft Development Consent Order application comprising many thousands of pages of technical reports, Environmental Statement chapters, plans and consultation responses. Given the scale and complexity of the application, **OpenAI's ChatGPT** and **Adobe Acrobat AI Assistant** were used as drafting and document review tools to assist with summarising documents, improving clarity and cross-referencing information. **Any images included within this Written Representation that have been adapted from the Applicant's documents were edited manually by the authors and were not created or modified using artificial intelligence.**

All arguments, conclusions and opinions contained within this Written Representation have been reviewed and approved by the authors, who accept full responsibility for its contents.

Contents

Use of Artificial Intelligence.....	1
Contents.....	2
Executive Summary	3
Overall conclusion	6
1: Introduction	6
2: Environmental Impact Assessment Methodology and Flaws	7
3: Site and Surroundings.....	15
4: Reasonable Alternatives and Design Evolution	18
5: Scheme Description for this land parcel.....	23
6: Climate Change	28
7: Landscape and Visual	31
8: Ecology and Biodiversity.....	33
9: Water Environment.....	42
10: Cultural Heritage	47
11: Transport and Access	54
12: Noise and Vibration.....	63
13: Air Quality	67
14: Socioeconomics	69
15: Soils and Agriculture	73
16: Ground Conditions.....	77
Ground Conditions, Geotechnical Risk and Groundwater	77
17: Electromagnetic Fields.....	80
18: Other Environmental Matters.....	83
High pressure gas main.....	84
19: Cumulative Impact	88
Cumulative impact on heritage	91

Executive Summary

Land Parcel 7 suffers from **multiple, interacting constraints which render it undeliverable in practice and in law**. These constraints arise from European Protected Species impacts (barbastelle bats), chalk-stream ecology (River Tas and white-clawed crayfish), absence of a lawful ecological baseline (botany), and unassessed essential infrastructure (rural fibre-optic broadband).

These constraints are not capable of being resolved through detailed design, conditions or mitigation. **They go to the fundamental feasibility of constructing and operating the Scheme as proposed**, and materially undermine the credibility, viability and lawfulness of the draft Development Consent Order (DCO) and for these reasons the parish council strongly objects to the draft DCO being approved.\

Key points:

- Saxlingham Nethergate is an ancient village with conservation areas spreading across the village and The Green in two parts on an unclassified road closely lined with ancient (up to 500 years old) grade II and grade II* listed buildings, walls and a war memorial. Many of these are built with clay lump and have very shallow or no foundations. No mitigation can save these buildings and structures from the proposed AIL route. The two land parcels 7D & 7F are in an area of Rural Dark Landscape, as defined in Norfolk County Council's Environmental Lighting Zones Policy. Lighting will most certainly impact on both residents bats, flora and fauna. Ancient trees line the narrow lane on The Green.
- Narrow unclassified roads, in some places less than three metres wide, will become impossible for local farm traffic and residents to travel on safely when construction is in progress. There are very few passing places and often high banks, walls and railings to navigate. The Green in particular, is very rural, with restricted HGV access, as indicated on the sign at the entrance.
- Saxlingham Nethergate floods regularly. The fields 7D and 7F flood and constant ingress can be seen in a nearby dwelling garden throughout the winter months. The road through the village floods as do the many culverts and ditches. The culverts are deep and lined with railings very close to the road, making it impassable for heavy loads on the proposed AIL route.
- Tourism is a multimillion-pound industry for Norfolk and according to a tranquility map that CPRE (Campaign to Protect Rural England) produced, the county is in the top ten of the most tranquil in England and the most tranquil in East Anglia. Norfolk is a magnet for many seeking temporary or permanent escape from the city. Having the landscape covered in hardware, effectively turning it into industry will certainly have a very negative impact on tourism.
- Community identity is at the heart of a rural village like Saxlingham Nethergate. The Boudicca way is a precious and popular ancient route that cuts through Saxlingham Green. Many ramblers, cyclists and horse riders use this and the many footpaths and bridleways that run alongside and between the land parcels. Horses will not be able to use these bridle ways once the high fencing is erected and the panels and inverters are

in place, in addition to the high voltage substation. A care home is on the green and the proposed AIL route. These residents chose to end their life in peace and tranquility and often are taken in wheelchairs along the single-track unclassified road. This will be impossible during construction.

- A High-Pressure gas main runs across land parcel 7F and passes closely by the proposed substation, posing an obvious safety concern in terms of explosion and fire hazard.
- Barbastelle bats, a European protected species, have been noted in Saxlingham Grove woodland that borders on land parcel 7F. Their flight path to the other colonies stretches across all of site 7 and therefore cannot be mitigated.

Barbastelle bats – absence of a licensable delivery pathway

Land Parcel 7 lies entirely within **overlapping Core Sustenance Zones (CSZs) for barbastelle bats** and directly adjoins **ancient woodland confirmed to support maternity colonies**. The evidence demonstrates **landscape-scale functional habitat use** is not a localised effect that can be addressed through buffers, planting or construction timing.

As a result, delivery of development within this parcel would require:

- an **EPS licence**; and
- satisfaction of the statutory tests, including *no satisfactory alternative* and *maintenance of favourable conservation status*.

Given the extent of CSZ overlap, the cumulative impact of the wider Scheme, and the presence of multiple maternity colonies, **there is no credible evidence that a licence could be granted**. The Applicant has not identified any workable alternative layout or strategy that would avoid these impacts.

A scheme component which **cannot realistically be licensed cannot be delivered**, and reliance on post-consent licensing uncertainty undermines the credibility of the Scheme as a whole.

River Tas and white-clawed crayfish – hydrological and construction infeasibility

Land Parcel 7 directly adjoins the **River Tas chalk stream**, within a catchment now confirmed to support **breeding populations of white-clawed crayfish**, a strictly protected species.

Delivery of the Scheme would require construction activities with clear risk pathways:

- cabling and trenching;
- potential HDD beneath or near a fissured chalk geology;
- haulage and compaction impacts;
- sediment and pollution risk to the hyporheic zone.

No downstream crayfish surveys have been included in the PEIR, and therefore **no lawful or credible construction methodology has been demonstrated**. Regulatory approval (including

under the Habitats Regulations and the Water Framework Directive) is uncertain at best and likely unobtainable.

This creates a **hard stop to delivery**, not a mitigable impact. Where there is no viable means of crossing, working near, or protecting a chalk stream with protected species, **the land parcel cannot be built out**.

Absence of botanical survey – inability to design or mitigate

No botanical survey has been carried out for Land Parcel 7, despite the area's known importance for **rare and priority plant species associated with long-established grassland and roadside verges**.

This omission has direct deliverability consequences:

- the layout cannot be lawfully finalised;
- construction impacts cannot be avoided or mitigated;
- biodiversity net gain claims cannot be substantiated; and
- statutory consultees cannot sign off mitigation or compensation.

A scheme that cannot even identify what ecological assets it would destroy **cannot progress to construction in a controlled or lawful way**.

Rural broadband infrastructure – unresolved physical constraint

Land Parcel 7 contains **underground rural fibre-optic broadband infrastructure**, likely including community-led and commercial networks running through verges and fields.

The Applicant has:

- not mapped this infrastructure;
- not consulted operators or users; and
- not assessed diversion, protection or outage risk.

Damage or diversion would disrupt essential services to homes and businesses and could render parts of the Scheme unbuildable or delay construction indefinitely. This is a **practical delivery risk**, not a minor utility issue.

Cumulative effect – no credible construction scenario

Taken together, the constraints affecting Land Parcel 7 mean that:

- no licensable ecological pathway has been demonstrated;
- no lawful construction methodology has been shown for the River Tas;
- no ecologically informed layout is possible; and
- no reliable infrastructure protection strategy exists.

The Applicant has therefore failed to demonstrate that **this parcel can be constructed**, let alone operated and decommissioned in compliance with environmental and infrastructure law.

Scheme credibility and viability

Land Parcel 7 is not merely environmentally sensitive; it is **functionally undeliverable**. Its inclusion within the Order Limits requires the Examining Authority to assume that multiple regulatory approvals, licences and mitigation solutions will somehow be secured despite the absence of evidence that this is feasible.

A draft Development Consent Order which depends on such assumptions is **not credible, not robust, and not capable of implementation**. The reliance on Land Parcel 7 therefore materially undermines the deliverability and viability of the East Pye Solar scheme.

Overall conclusion

Fails on multiple independent and compounding fatal grounds, including:

- Direct harm to the Saxlingham Green and Saxlingham Nethergate Conservation Areas and listed buildings;
- **European Protected Species licensing failure** (barbastelle CSZ epicentre);
- **High-pressure gas infrastructure conflict**;
- European Protected Species and SSSI risk;
- unacceptably close to **residential area**;
- severance of multiple rural public footpaths and affecting **Boudicca Way**;
- destruction of **publicly funded Countryside Stewardship habitats**.

1: Introduction

Saxlingham Nethergate is the northern area of Site 7 and includes sub-sites 7D and 7F of mainly BMV Grade 2-3b growing various cereals.

The parish consists of two settlements and at one time was two parishes; Saxlingham Nethergate or lower parish, which includes Eastgate, now Saxlingham Green, and Saxlingham Thorpe (a settlement) which incorporates the hamlet of Foxhole.

Despite the village appearing to be a Saxon settlement, flint tools have been found which imply Stone Age settlements and much later, Iron Age and Roman occupation is indicated by potsherds and coins as well as foundations of buildings being shown by changes in the colour of the vegetation.

Saxlingham means the settlement of Sax or Saxe which could be the name of a person or a tribe. It also implies the people carried a war axe known as a seaxe (fortunately not seen any more!)

Saxlingham Nethergate has a population of 732 people (2021 census) living in 295 households. The parish covers about 3.3 square miles with two Conservation Areas with multiple listed heritage buildings and a Grade II listed War Memorial, which the residents are fiercely protective about.



Saxlingham Nethergate War Memorial

2: Environmental Impact Assessment Methodology and Flaws

East Pye Solar state in their Site Selection Assessment document APP/7.20, when considering the site selection process, they had several constraints and preferences:

- **Utilise** previously developed land, brownfield land, contaminated land, or industrial land;
- **Avoid** agricultural land or if unavoidable to use land that is not classified as BMV (1,2,3a) so looking at land that is 3b and 4;
- **Avoid** land in Flood Zone 2 and 3;
- **Avoid** land designated as Site of Special Scientific Importance (SSSI) as well as ancient and non-ancient woodland;
- **Avoid** any Scheduled Monuments, Registered Battlefields, dense concentration of listed buildings and Conservation Areas;
- **Avoid** area to the proximity of nearby sensitive human receptors (high sensitivity) which include residential dwellings, populated areas and villages.
- Some of Site 7 is in **Flood zone 3 with the rest in Flood Zone 2 (magic map)**; The whole area is part of **Natural England's National Character Area 83, South Norfolk and High Suffolk Claylands** with 25 years planned restoration and regeneration in place; Cable Route Corridor (CRC) and internal proposed haul road passes through the Claylands, significant to regeneration of character and wildlife protection, as well as adjacent to **several ancient and non-ancient woodland** areas
- Transport routes include manoeuvring the narrow lanes of Saxlingham Nethergate and the green Conservation Areas, which are not built for more than a car and a tractor;

- Saxlingham Nethetrgate and The Green are areas of **dense concentration of listed buildings**
- Planned transport routes in some cases of High Sensitivity, in particular on Broaden Lane and Church Hill, where it goes past the Saxlingham Nethergate Primary School.

Soil and Agriculture

East Pye Solar have not justified the use of BMV at all and in particular land categorised as BMV 1-3a.

Access and Transport

Some transport surveys were carried out in April - May 2025, others 'in September' as a neutral month although a key tourist time for Norfolk (although the year wasn't stipulated) and others in November. None have been updated after the Long Stratton by-pass was completed.

- **The A140 south - B1527 requires further assessment as the cumulative schemes accessing Sites 2A, 2B, 2C, CRC3 and CRC4 exceeds the IEMA (Institute of Environmental Management and Assessment) and EATM (Environmental Assessment of Traffic and Movement) guideline thresholds of more than 10% flow increase on links with receptors of High Sensitivity.**
- This flaw affects Site 7 as much of the haulage will be held at Site 4A before called on to Sub-site 7A-F impacting the Hempnall roundabout and causing congestion and road user risk;
- Different transport studies were taken with different results making understanding of the results challenging at best and generally incomprehensible and skewed;
- **HGV count includes vehicles over 3.5 tonne.** The count includes delivery vans, work vans, Supermarket vans, ambulances, flatbed trucks, horseboxes, farming vehicles, public transport, minibuses, motorhomes, towed caravans to name a few. Rarely it will include an HGV therefore the actual percentage increase in HGV rate will be far greater than claimed;
- **Site 4A will act as a holding point for haulage to be called on to 7A-7F;**
- Norfolk County Council refused access to Sites from A-roads yet and anything less than a B-road. This access point is not just from an A-road but also a **major junction on the A140;**
- **A19 accesses a major construction Compound and haulage holding site for 7A-7F** which will cause further congestion at the roundabout;
- Access to the haul road for Site 7 is from a C-road;
- Many lanes and access points haven't been surveyed including the junction with Brick Kiln Lane and B1527 which will serve haulage to site 7A-7F;
- Visibility splay at access points cannot be achieved without removing significant habitat like wooded areas and hedgerows;
- A 7.5m wide CRC haul road is planned for HGV traffic across Site 7 without sufficient Ground Surveys to access suitable land;
- A haul road is planned to go across sub-site 7F and will move across a National Gas Transmission Pipe without considering the buffer zone around it and the risk it entails;
- **National Gas Transmission have objected to the scheme** due to lack of communication.

- The transport route to haulage route 7A-7F is via the Krons, a lane not meant for heavy haulage and no assessment has been made of the brick bridge over the Hemphall Beck (described as insignificant). East Pye Solar report that no weight limit signs are visible

Cable Route Corridor Surveys

In December 2025, during the meeting with the Planning Inspectorate, and documented on 5th February 2026, East Pye Solar was advised to consider undertaking Agricultural Land Surveys (ALS) on the cable route corridor (CRC) referencing 'Oaklands Farm Solar Park' whereby Natural England raised concerns about the assumptions on land quality in that case and requested an ALS survey to be undertaken on the CRC during the examination.

The Inspectorate also advised the applicant to ensure relevant surveys were completed in time.

No surveys have been carried out on the Cable Route Corridor (CRC) for ALS.

In fact, throughout the documents the Applicant still refers to **the need for 'detailed design' at a later stage** when discussing the CRC. How can this be assessed as to what to expect if it is still unclear of the detailed design that hasn't been finalised and surveys not undertaken?

So much of the CRC is incomplete as the land, access and route hasn't been surveyed and there are multiple inaccuracies including the nearest properties across the scheme.

Unregistered / Unknown Land Ownership and Book of Reference

- Section 56 notices were issued during 2025, and letters were sent to multiple residents asking about financial information causing worry, fear and stress including those in their 90s;
- Section 56 notices then began to appear again across the scheme from early May 2026, a week after the Planning Inspectorate registration opened and up until early June, less than 10 days before the close of Planning Inspectorate registration. At least 20 new notices in Saxlingham Nethergate were posted on 30th May 2026;
- Many notices were posted several miles away from the relevant area and included up to 20 notices at a time;
- Many Section 56 signs appearing during the registration period were extended areas or different from the DCO. Some areas have not been included within the DCO;
- Many Section 56 signs are unidentifiable locations and could be anywhere;
- Many Section 56 notices were removed, some deliberately and found as litter blowing in a verge, whilst others were removed including the posts and not replaced when requested.
- An increased land take on The Street/Church Hill including the War Memorial and up to the school;
- A comparatively large and new take to include the house "Pisces". It is not immediately clear why this land is required.
- A larger land take around the corner opposite Low Farm Cottages.

Great Crested Newts (GCN)

- **Natural England** will only accept survey results carried out within the optimum survey period between **mid-April to the end of June**;

- **From Natural England**, 'a survey for Great Crested Newts should be conducted where there's a suitable water body such as a pond or ditch within **500 metres** (m) of the development, even if it only holds water for some of the year' Gov.uk;
- Great Crested Newts have been located on multiple ponds and water areas on Site 7 and across CRC based on data records since 2006 up and until 2023 EPS Environmental Study Vol3; App 8.3 March 2026;
- East Pye Solar stated Surveys were to be carried out June 2024 and June 2025 on other ponds and water areas on sites;
- Further surveys were carried out on a 250m buffer zone and are dated towards the end of June (at the end of the optimum survey time) also into July, August and September;
- GCN were found to be on ponds and water areas within Site 7 and within the 250m buffer zone of Site 7;
- No surveys were carried out on ponds on CRC as ponds were not present on the online mapping and only discovered during CRC extended habitat surveys undertaken in late 2025 and therefore status is unknown but precautionary assumption is made. There are GCN on most ponds across the CRC;
- Some results were 'precautionary positive' due to no access or ponds were dry. Surveys on fields during key harvest times and during summer months, especially in June 2025 when the county had been in drought for months, is no surprise;
- Many local ponds have not been surveyed for Great Crested Newts
- **Many natural habitats will be removed or disturbed, like significant hedgerows and foraging habitat, during construction;**
- The GCN population is considered important at a local level;
- Absence of a record labelled as 'inconclusive' does not mean there are no Great Crested Newts. It could mean there is no survey data available for that location or data could not be gained;

Bats

Site 7 has multiple areas of woodland that are contained within the scheme as well as surrounded by many areas of woodland and habitat favoured by bats. Trees considered 'veteran' and 'ancient' by the Woodland Trust, are a perfect habitat for bats.

Bats are regularly sited around Site 7 and clearly have an established habitat.

These colonies are in addition to the maternity colonies of Barbastelle Bats identified across the site. The Barbastelle Bat is an Annex II species under the Habitats Directive and is classed as vulnerable in the UK. Whilst rare, East Anglia is a known stronghold for the species nationally, particularly Norfolk. As a result, it has been identified as one of the **core areas suitable for the implementation of the Species Recovery Programme (Harris 2020)**.

All bat species are legally protected in the UK as European Protected Species (EPS) in the Habitats Directive and under The Conservation of Habitats and Species Regulations 2017 and prohibits to impair their ability:

- To survive, breed, or reproduce; or to rear or nurture young;
- to hibernate or migrate;
- to affect significantly the local distribution or abundance of species;

- damage or destruction of a breeding site or resting place.

The Wildlife and Countryside Act 1981 states it is illegal to intentionally or recklessly disturb bats whilst in their place of shelter, or obstructing their access to shelter or protection.

The applicant has not demonstrated that the necessary license from Natural England is likely to be forthcoming. East Pye Solar should not be issued permission to develop without the licence.

Badgers

The submitted badger information is redacted, so affected parties cannot determine whether the active setts have been identified, classified or assessed. This creates a serious uncertainty in the ecological baseline and in the assessment of construction disturbance, severance of foraging/commuting routes, collision risk, lighting, vibration, trench hazards and potential sett interference.

The Applicant should be required to confirm confidentially to the Examining Authority, Natural England and the relevant authority ecologists whether these setts are included in the ES badger survey; whether it is a main, annex, subsidiary or outlier sett; what activity level has been recorded; what buffer distances are proposed from haul routes, fencing, panels, trenches, lighting and construction compounds or substations; whether any works would require a Natural England licence; and where those measures are secured in the DCO requirements and certified documents.

Given that the setts lie in an area also associated with barbastelle Core Sustenance Zone habitat and within a hydrologically connected landscape draining towards the River Tas with white clawed crayfish and ponds with great crested newts, skylarks, turtle doves and many red listed birds across the fields, this cannot be treated as a minor isolated constraint. **It is further evidence that Site 7 forms part of a connected ecological network whose disturbance, fragmentation and cumulative effects have not been adequately assessed.**

Seasonal Surveys and Ground Nesting Birds

East Pye Solar have failed to survey the fields for **Lapwings**, **Skylarks** and **Turtle Doves** as well as seasonal surveys for other wildlife which are protected. The Applicant has relied upon desk top studies.

Absence of data doesn't mean absence.

Skylarks: are present on every field across the scheme and thriving due to protections in place and how the land is being managed. Skylarks will be highly impacted by mass removal of important habitat.

Two years of construction disturbance including the permanent removal of nesting sites for **Skylarks** within the solar sites and the removal of nesting sites, albeit temporary, for the two years of construction on the CRC, will have a serious impact on numbers, which can't be mitigated against.

The EPS survey identified 81 nesting sites across the order limits and concluded that the Skylarks within the order limits represent <1% of county populations. Accordingly, this number was viewed as unlikely to be considered significant in the national and county context. It is also dependent on how thorough the survey was. The survey didn't include the Cable Route Corridors.

However, with the accumulation of schemes across the region, particularly the local area, eventually the detrimental impact will itself accumulate and the impact should be considered on a cumulative basis and not site by site or scheme by scheme.

If the same opinion of 'insignificant impact' was concluded at each scheme, by only looking on a scheme-by-scheme basis, then eventually the accumulative impact becomes significant, but it will be too late. Each small impact adds up.

Turtle Doves, Song Thrushes (amber listed) and **Mistle Thrushes** (red listed) have all been spotted across Site 7.

Fieldfares (red listed) and Redwings (amber listed): are in abundance across the winter fields of the scheme and overnight in flocks in the trees of the small copses and significant hedgerows across Site 7 and across the Scheme. Removal or disturbance of significant hedgerow across the Order Limits during the construction will have a serious detrimental effect to these struggling birds.

Missing private water supply surveys and consultation?

Environmental Impact Assessment conducted by East Pye Solar failed to survey sufficiently the private water supplies for properties surrounding site 7.

In addition to private water supplies, most properties have **private sewage systems** such as septic tanks and treatment plants, and these **have not been assessed at all**.

Solar panels increase the concentration of rainwater that drains off them, increasing the speed and volume of runoff in the spaces in between rows. Run-off has been observed to appear in channels on the ground as distribution of water changes to an unnatural fall. This can lead to **soil erosion and water logging** (ScienceDirect), **potentially overloading or damaging existing land drainage systems that private sewage systems rely on. This should be considered a public health issue.**

Soil compaction during construction, operation, replacement and decommissioning reduces the grounds permeability which could impact the functionality of soakaways especially if not managed.

Risk of **sediment or pollutants** entering the system as well as affecting the functionality of the system is a significant risk to public health and ecology.

Noise

No noise assessments have been carried out on Cable Route Corridors including the internal haul road across Site 7, trenching, HDD and AIL and HGV routes.

Utilities

Site 7 has multiple utilities running along the boundary edges, roadside verges and across sites including underground cabling as well as overhead power lines.

These have not been assessed nor mapped. No mapping or assessment has been carried out on Cable Route Corridors

With limited Broadband connectivity, rural communities rely on satellite services like Starlink. Many mobile phone providers are now abandoning new masts due to the long planning process and offering back up signal via Satellite.

The Scheme includes extensive power conversion equipment, BESS installations and multiple high-voltage substations. The Environmental Statement should clarify whether electromagnetic emissions have been assessed for compatibility with modern satellite broadband services operating in Ku- and Ka-band frequencies, including user terminals located within the nearby rural properties, together with any proposed monitoring and complaint resolution procedures should interference be reported during operation.

Water for Cleaning Panels

East Pye Solar will be using wheel washing amenities without stating how much water will be required and where the water is coming from and where the water will go afterwards. Runoff into the waterways and ditches, especially in the vicinity of the Tas tributaries, is of concern for pollution.

East Pye Solar will require 7,136 cubic meters or 7,136,000 litres (the equivalent to 2.85 Olympic-sized swimming pools)

De-ionised water would be transported to the Order Limits by tanker. It doesn't state the size of the tanker nor how many journeys that will be so looking at a tanker from 10,000 litres to 40,000 litres that would equate to **714 @ 10,000 litres to 179 tankers for 40,000 litres which is 1428 to 358 two-way journeys**, no doubt all using fossil fuel.

The di-ionising water process also requires more energy. There is no evidence that this has been factored into the scheme and **Anglian Water hasn't agreed access to supply, so where will the water for cleaning come from?**

Assuming all water companies will also be protecting supply to avoid the scenario of Cleve Hill Solar in Kent using local supply from standpipes and leaving residents with no water at all, **how can this water volume be achieved?** Add this to the accumulative impact of other Schemes across the region and the water requirements will be huge and hasn't been addressed in any of the documents.

East Pye Solar documents (The Scheme APP/6.1.4) state that due to the *'wet UK climate, Solar PV Panels are largely self-cleaning and determination in supply due to dust or dirt is generally low. Yet the requirement and frequency of cleaning the panels is due to the build-up of dust and dirt which depends on specific conditions. For example, the presence of fine dust emitters such as quarries, agricultural operations (harvesting) and nearby woodlands can all impact the level of dust deposition.'*

The documents state, *'the main factor influencing cleaning requirements in the UK is lichen growth, which is also influenced by site and climate factors.'*

Lichens grow on solar panels through symbiotic relationship between algae and fungi in a 3-stage process:

- **Initial Algae Bloom:** Moisture trapped along the lower edges of panel frames, combined with sunlight and organic debris (or nitrogen-rich bird droppings), allows algae to form a slimy, green layer.
- **Symbiotic Bond:** Once the algae are established, fungal spores take hold. The fungus feeds off the sugars produced by the algae and, in return, locks onto the microscopic texture of the glass.
- **Hardening:** The fungus acts as a natural glue, anchoring the composite organism tightly to the panel surface. It then slowly spreads across the glass, feeding on environmental nutrients and carbon dioxide.

Why It's a Problem for Solar Panels

- **Reduced Output:** Lichen heavily shades the underlying photovoltaic cells. Studies show that a severe infestation can reduce energy output by 15–25%, even on sunny days.
- **Permanent Damage:** As the fungus grows, it acts corrosively and can permanently etch or scratch protective anti-reflective coatings on the glass.
- **Hot Spots:** By completely blocking individual solar cells, lichen forces the surrounding functional cells to work harder to bypass the blockage. This generates excess heat, which can permanently damage the panel.

Norfolk is the perfect climate for lichen growth as the climate is relatively mild and damp. All the components to grow lichen are readily available across the Order Limits.

The area is surrounded by poultry, beef and pig farms. Also, as a large crop area, grain stores and mills are located within the Order Limits. Organic matter (muck) spreading is normal practice across all arable fields.

Norfolk is a major oak tree area with the English Oak serving as the most common broadleaf tree species in the county. The Norfolk Landscape Tree Study found that the oak is the dominant deciduous tree in Norfolk's woodlands and can be found growing in more than 50% of the county's hedgerows and a major habitat for the region's abundance of birds.

*'The requirement for cleaning due to loss of output is balanced against the cost of the cleaning operation. East Pye Solar believes that some sites can operate **without** the need to be cleaned, whereas others require cleaning **annually**.'*

It won't be known until the Scheme is operational about the need for cleaning so, *on a worse case* assessment is assumed as a two-year cycle, although the documents make it unclear if that is the whole site.

Operational Waste

Site waste would primarily be general (Household Type) from staff visiting. Although it states in the documents it will be segregated for disposal it does not state where it will be disposed of nor the impact to local services.

Waste components such as damaged PV Panels, batteries, cables, connectors and mounting structures would be removed and recycled as far as possible.

However, East Pye Solar doesn't state where they will be disposed of and as solar panels are classified as hazardous WEEE (Waste Electrical and Electronic Equipment) they cannot be legally sent to landfills in the UK. Compliant disposal requires using WEEE-approved facilities to recover valuable materials like aluminium, glass and silicon.

Panels contain toxic materials which require specialised treatment.

Industrial-sized solar would require an Environment Agency permitted Approved Authorised Treatment Facility (AATF) which would need to be able to cope with not just decommissioning but also the replacement of panels several times across the scheme.

Operational Staff

Throughout the consultation period the community were being told the Scheme will create '**local jobs for local people**'.

East Pye documents state '**no permanent on-site staff will be required to operate the Scheme**. There will be limited staff facilities located in the control room associated with the 132kV and 400kV Substations. Equipment for monitoring the Sites will be located in the Relay and Control Room. This would typically be **accessed remotely**; it would be available for occasional physical access during routine visits.'

Workers will be required for full solar replacement (129-240) which will be the construction team that are shipped about. Otherwise, it will be ad hoc limited maintenance roles including cleaning and up to 5 visits a month.

3: Site and Surroundings

Land Parcel 7F shown above, is the site for a 132kV substation and will be in sight of listed buildings on the Green. The presence of high-pressure gas main represents associated severe ecological and hydrological safety risks. The field drainage pipes across all land parcels were not designed to withstand the weight of heavy goods vehicles. The same is true of the pipes beneath unclassified access roads for proposed AILs.

Parcels 7D & 7F adjoin Saxlingham Green Conservation Area (CA) - a designated locality of special architectural and historic interest, protected by local authorities to preserve or enhance its unique character and appearance. The CA contains ten listed buildings, and the proposed development would introduce dominant, permanent infrastructure wholly incompatible with this character. The proposed AIL route has a further 17 listed buildings close to the road.

Boudicca Way traverses Saxlingham Green and is a popular long distance hiking trail between Norwich and Diss which celebrates Queen Boudicca of the ancient Iceni Tribe which was located a few miles away at Caistor St Edmund. Boudicca Way passes through the rural gently undulating countryside of South Norfolk and the Waveney Valley using Public Rights of Way and quiet country roads where visitors can find unusual wildlife and flora.

Saxlingham Green is a small settlement located off the minor route between Saxlingham Nethergate and Hempnall to the south. The unclassified road which bisects The Green eventually links with other minor roads linking the settlement with Hempnall to the south and Brooke to the north-east.

Section 72 of Planning (Listed Buildings and Conservation Areas) Act 1990 imposes a duty:

“special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area.”

The Saxlingham Green conservation area was originally designated in 1973, one of only 6 conservation areas in Norfolk designated by the former county council. There is an adjacent SSSI that includes areas of Woodland Priority Habitat Network and Woodland Improvement of high special priority.

Natural character dominates with the buildings being secondary to it:

- There are a number of fine historic buildings dispersed within the area;
- Situated on “plateau” site to the southeast of Saxlingham Nethergate;
- Linked to surrounding countryside by a matrix of footpaths and bridleways;
- Much of The Green is enclosed by groups of mature trees together with hedgerows;
- The Green follows the line of the road but is made up of separate areas which provide a series of changing views and vistas.

Section 66(1) of The Planning (Listed Buildings and Conservation Areas) Act 1990 imposes a duty on local authorities, or, as the case may be, the Secretary of State, when considering applications that affect a listed building or its setting, to:

“have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses”.

The Green is surrounded by a network of footpaths and the land parcel 7D and 7F would be severely adversely affected by the development, as shown below:

A development of this nature will create a significantly high amount of construction traffic using rural roads and rights of way. This construction traffic will bring high disruption and give rise to a very real danger to pedestrians and riders of horses along with other rural road users, demonstrating that single track rural lanes are fundamentally unsuitable for sustained use by heavy delivery vehicles.

In a recent British Horse Society article, it states drivers pass too quickly and closely and cause 81% of equine related incidents.

Views from Listed Properties

The uninterrupted views across open countryside will be removed and replaced by views of industrialisation; panels, substation, security fencing, CCTV etc.

Landscaping across the scheme will take at least 15 years to become established but the landscape itself changes the character of the open countryside to one of enclosure, out of character and 'alien'.

Natural landscape includes significant hedging and individual trees dotted around. The artificial landscaping will create a thick, unnatural appearance with an emphasis on screening.

The substation and solar arrays would remain a clearly noticeable change in the view of the location. Screening would not be performing at Year 1 however by Year 15 it was considered (if successfully established) that 'visibility of the elements within site 7 is predicted to reduce. The screening is itself an intrusion into the historic landscape. Glimpses of solar at maximum height (4.5m) and the 132kV substation (13m) would result in a change from baseline conditions.

Fencing: The security fencing proposed is normally metal palisade and brings with it safety implications. Its top is likely to be at or below chest height for equestrian riders and will result in injury if a rider is thrown from the horse.

Fencing can be intimidating, combined with a narrow corridor, creating a conflict for Bridleway and By-way users (horse riders, dog walkers, pedestrians, cyclists). Being narrow and confined removes an escape route leaves no escape route from a threat as would be the case on an open field.

Saxlingham Green is home to a number of ancient trees which line the lane on the grass verges that will be disturbed greatly by large numbers of heavy vehicles. The trees overhang the road.

- At least 11 ancient oak trees, all over 500 years old
- 14 horse chestnut trees at least 200 hundred years old
- 2 lime trees over 200 hundred years old

Below a photo of the a line of oak trees at the entrance to Saxlingham Green looking west to the village. Grid ref: TM2378 9660.





Above photo of the boundary of 7F taken from the footpath looking towards Woods End Cottage on the Saxlingham Green. TM2413 9636. The distance is less than 130 metres to the curtilage.

4: Reasonable Alternatives and Design Evolution

The area is of high significance for ecology, tranquillity and heritage. The access routes have been changed to using a non-classified road through a network of small villages or holding compounds impacting major transport routes.

It's impossible to accurately trace the route as the maps and Access points aren't clear.

Site 7A-F - using Hempnall Footpath 2

- using Access points A28, A29, A30, A40, A42
- From A140: south on Hempnall roundabout onto Site 4A via A19;
- Await call-forward to site;
- Eastbound on Hempnall Roundabout to B1527;
- Northbound on The Krons;
- Westbound on Fairstead Lane;
- North onto A29/A31;
- Internal haul route to Sites 7A-F;
- Cross Broaden Lane via A40 for access to 7E-F;
- For southern portion of Site 7D, southbound on Broaden Lane and west onto A42;
- Depart on same route in reverse.

The proposal does not have adequate access to, or is remote from, the HGV Route Hierarchy, as classified in Highway Authority's Route Hierarchy published by Norfolk County Council. Two-way movement of traffic will fundamentally rely on a rural lane network that is not designed to

accommodate this level of construction traffic or large vehicles.



The above photo illustrates the daily traffic issues on Church Hill Saxlingham Nethergate.

In most places it will be impossible for two vehicles to pass. Video footage has already shown this on Church Hill in Saxlingham Nethergate. There are also significant concerns regarding the safety of vulnerable road users, including pedestrians, cyclists, and horse riders and the impact on foundations of nearby dwellings.

The unclassified roads serving sites 7D and 7F are inadequate to serve the development proposed, by reason of their restricted width, lack of passing provision, road structure and underlying drainage pipes. Part of the public sewer towards the top of Church Hill is known to be of pitch fibre pipe construction, which was widely used by the former Forehoe and Henstead RDC as a cheap lightweight alternative to clay pipes until and they are known to be prone to failure.

The proposal, if permitted, would be likely to give rise to conditions detrimental to highway safety, in addition to the ability of the HGVs to pass. The current proposals do not sufficiently address the needs of all vulnerable road users along the proposed route. The AIL haulage units are wider than much of the current roads on the route, higher than much of the overhanging tree vegetation and too long to take the many turns without considerable unspecified verge, hedgerow and tree removal and ditch filling. And they are likely to cause untold damage to verges, bridges, the roads themselves and drains and other services running beneath them.

The proposed new AIL haulage route through Saxlingham Nethergate is lacking in detail, or signs of any research conducted. Many grade II listed houses and ancient walls and railings are close to the road. It is apparent to anyone who uses it that it is completely unsuitable for the vehicles they are proposing to use.



Narrow road through Saxlingham Nethergate. Above photo of The Old School, a Grade II listed dwelling on a narrow bend at the bottom of Church Hill. Grid ref: TM23009710

In addition, the AIL route goes through the conservation area of the village which includes the War Memorial, the hedge and listed wall of The Old Rectory and a number of vulnerable buildings already close to the road edge but, with proposed unspecified verge and pavement removal/reduction, will be made even more vulnerable to vibration and other damage.

The drone picture below shows narrow road, listed buildings on either side. The trees on the left are behind a grade II listed high wall. (Courtesy of Lockwood Chartered Surveyors).



The photo below is a close up of an ancient listed brick wall on the roadside of Church Hill and on the proposed AIL route.



Saxlingham Hall is a grade II listed residential nursing home on the green and patients are often seen being taken out in wheelchairs along the lane. This would be impossible if heavy goods vehicles were using this lane to access field parcel 7F and beyond for the cable corridors as there is no footpath. The peace and tranquillity that patients and their families currently enjoy would be shattered. The road is of poor quality and not designed for heavy use and would not withstand constant heavy traffic. Boudicca Way runs along the road on the green and is used by ramblers and cyclists. This road is less than three metres wide in places and often with high banks making it difficult for two vehicles to pass each other.

The drone picture below highlights the rurality and narrow lane on Saxlingham Green (Courtesy of Lockwood Chartered Surveyors).



The photograph below is looking towards Grade II listed dwelling Holly Cottage (226637) on Saxlingham Green and the area where road widening is proposed and a high-pressure gas pipe is situated. Grid ref: TM2471 9647



The green is lined with many ancient trees. The unclassified road measures between 3 and 3.5 metres wide. Above is a photo of a line of historically important Horse Chestnuts at least 200 years old. Grid ref: TM2451 9657

5: Scheme Description for this land parcel

Overview

- Solar array panels - 4.5m high tracking with mounting structures
- Cabling, Cable Corridor
- Conversion Units compounds
- 132kV substation
- Interconnecting cables
- Security Fences
- CCTV, Lighting
- Access points leading to removal of vegetation for visibility to 250m
- Panel Change, Panel Cleaning
- Operation
- Maintenance of Site
- Decommissioning
- Closure of Footpaths

Cable Corridor and Internal Haul Road

The following activities would be required to construct the interconnecting Cables Grid Connection Cables:

- Site preparation and appropriate surveys;
- Haul road construction;
- Excavation would be undertaken using appropriately sized tracked excavator and carried out in layers;
- Topsoil would be segregated and stored on-site to be reused;
- The trench would be cleared and bottomed out, ensuring no hard protrusions;
- Sand bedding would be installed at the bottom of the trench;
- Cable installation will be conducted once joint bay locations have been established.

Conversion units

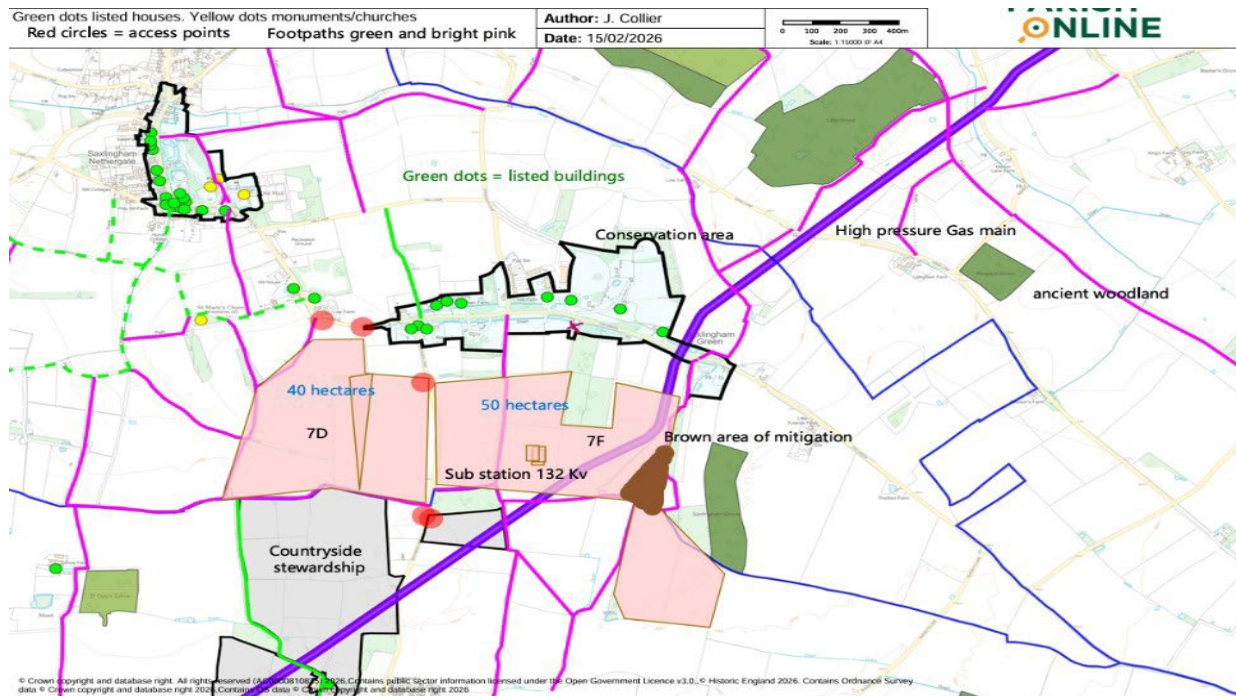
Conversion Unit, a collective term used for the combination of electrical components including inverters, transformers and switchgear, used to manage the electricity generated by the PV Panels. The components may be housed together within a container on each site. A container would measure approximately 3.5m (H) x 5m (W) x 15m (L).

Inverters located within the Conversion Unit compound would either be standalone cabinets or housed within the container. The maximum size of a standalone inverter would be **6m x 2.4m with a maximum height of 2.9m**.

Transformers and Switchgears

Required to increase and decrease the voltage of electricity generated by the solar PV arrays. Should a standalone transformer option be required, the maximum dimensions would be **43m by**

65m with a maximum height of 6.5m. Switchgears are the combination of electrical disconnect switches, fuses or circuit breakers used to control, protect and isolate electric equipment. Should a standalone switchgear be required, the maximum dimensions would be **6.5m x 9m with a maximum height of 4m.**



Map above showing conservation area, listed buildings, high pressure gas main, sub station and access points.

Land Parcel 7D and 7F have a total 90 hectares of solar panel with an unspecified number of inverters. These land parcels are surrounded and dissected by numerous public footpaths including the Boudica Way.

A 132kV Substation at least 6.5 metres high, covering 0.75 hectares, is proposed for the southern edge of Land Parcel 7F, bordered to the west by PRoW SN-FP10 and to the south by PRoW SN-FP27. Underground, a high-pressure National Gas Main passes its southeastern corner.

High-pressure gas main and utilities: unresolved safety and deliverability risk

The high-pressure gas main crosses land parcel 7F and passes close to the proposed substation, creating a fire and explosion safety concern. Rural fibre-optic broadband infrastructure is situated within Land Parcel 7; the applicant has not mapped it, consulted operators or users, or assessed diversion, protection or outage risk.

These are not peripheral utility issues. A high-pressure gas main close to electrical infrastructure, construction compounds, cabling, fencing and access works is a major constraint. Similarly, rural broadband is essential infrastructure for homes, farms and businesses. Damage or diversion could cause significant community and business harm and may materially affect construction feasibility.

The land within 7F is BMV grade 2, principally clay and subject to flooding. The surrounding landscape is agricultural, quiet, dark and tranquil, bordered to the north by Saxlingham Green, a heritage-rich conservation area, with numerous listed buildings. Access is planned from Broaden Lane (an un-lettered/numbered road) to the west and so a haul road capable of supporting an AIL vehicle carrying a transformer will need to be constructed across the western part of 7F to reach the substation. None of those factors would suggest this location to be in any way ideal, as is suggested above.

Interconnecting cables within the sites

The solar PV arrays will be connected to the 132kV substations via interconnecting cables. The cables may be installed underground or within casing attached to the mounting structures.

Fencing and security

- **Perimeter fencing** would be in place throughout the Sites surrounding the solar PV arrays and will comprise deer wire mesh with wooden posts at a **maximum height of 2.5m**.
- **Pole-mounted, internal-facing CCTV systems** will be installed around the perimeter of sites on galvanized steel poles with a **maximum height of 3m**.

Lighting

- Motion-sensing security lighting will be provided within the substation, conversion unit compounds, to be used for maintenance and security purposes. In the event of an emergency, lighting will also be provided.
- Temporary on-site lighting will be required during construction to enable safe working hours of darkness within the agreed working hours.
- This lighting will be suitably designed as far as reasonably practicable to not cause nuisance and would accord with good practice measures to minimise light spill and glare. The plain fact is that this cannot be guaranteed especially in the countryside where there is no artificial lighting.

Site access

- Access points into each Site or sub-Site will be designed to accommodate an articulated HGV with a maximum length of 16.5m. Visibility splays of 2.4m and 215m are required. In addition to the HGVs, Articulated Indivisible Loads (AIL) of up to 36.5m long will require additional consideration

Visually, the size and height and bulk of this construction would completely dominate the landscape. The substation would sit central to hundreds of repetitive 4.5m(14.75ft) black static or tilting solar panels, all surrounded by 2.5m (8ft) 'deer fencing', covering the remaining 50 hectares on 7F to the north, east and west and a further 40 hectares on 7D across a road to the west. Cumulatively, this is industrialisation on a huge scale all within view of properties along Saxlingham Green.

The substation will be lit 'the lighting of the Project Substations... would be in accordance with health and safety requirements. All lighting would seek to limit any impact on sensitive receptors through the implementation of standard good practice measures. 4.3.31

There will also be motion sensing lighting will be implemented in the Project Substations and other critical electrical infrastructure to be used only for maintenance and security purposes. 4.3.32. So, although fields of solar panels do not need light, in the case of 7F there will be artificial light coming from the substation in an area where there has never been artificial light, dramatically creating light pollution in an area of particularly dark skies.

Apart from light pollution affecting the residents of Saxlingham Green and illuminating an industrial site, artificial light will have a severe impact on the barbastelle bats that flourish in the area.

Natural England's 2024 Definition of Favourable Conservation Status for barbastelle makes clear that barbastelle are a vulnerable, light-shy Annex II species closely associated with broadleaved woodland, veteran and dead trees, riparian habitats, hedgerows and treelines; that they avoid artificially lit areas, depend on large, well-connected dark landscapes, and that there is currently no known proven mitigation or compensation for loss of barbastelle woodland roosting habitat over the short to medium term. Natural England further states that existing and potential roost sites should be protected from disturbance and development, and that artificial lighting fragments habitat and impairs connectivity between colonies.

This has not been properly addressed in the submission. Bat boxes, 'considered' under 4.3.21, are not a solution.

Noise and Vibration. The appendix states that transformers generate a 100 Hz hum due to vibration of the transformer coil but then dismisses this as not significant. But the sub station on land parcel 7F is in a very quiet part of the scheme with little background noise and so any noise is likely to have more impact in very low-background rural conditions.

This has been pointed out by South Norfolk Council who have disputed the operational thresholds and acceptability case saying that operational noise should be at background level or below and that conclusions could not be assessed whilst details of the substation remain to be fixed.

Bats are extremely sensitive to noise, not least construction noise, but also background noise which affects their echolocation abilities, foraging behaviours and social communication.

Public rights of way will be affected. The substation itself is bordered to the west and south by public rights of way and site 7F, in which it sits, is surrounded by several currently well used footpaths.

The construction process of the substation (and panels), along with the environment it creates is likely to deter purely recreational walkers and visitors from using footpaths, which in any case, for safety reasons, will be either closed 'Medium -term' or 'Open but Managed' as a consequence of construction work and vehicle movements.

Once operational the combination of noise from the transformer, inverters etc, which will be heard from footpaths running beside the substation, combined with the fencing and industrialisation of the landscape are likely to be a further deterrent to all who have to use the paths – which include direct walking routes to the facilities in neighbouring Hempnall - the substation will dominate the view experience and degrade the experience.

Although mitigation planting is proposed it seems likely that the substation will remain visible from afar (footpaths Hp-FP3 and Hp-FP5) and near: 'At year 15 the proposed mitigation would be fully established and would screen *the majority* of the proposed elements. It is however likely that the substation would remain visible to some degree' (SN-FP27 Appendix 7.9: Public Rights of Way Visual Amenity Assessment)

The remnants of the substation may be left in situ after decommissioning. The submission provides two possibilities concerning what will happen to the base of substation at decommissioning, depending on how it has been constructed which, like many aspects of this scheme, has not yet been fully concluded.

'Depending on the ground conditions' the 132kV Project substations will have either a raft foundation or piles to a maximum depth of 10m below ground level with a 1m pile cap. 15.8.50

This structure may be permanent – 'The works are likely to be temporary and reversible, which would be a 'low magnitude impact'... 'It is considered likely that the works will be long-term temporary and fully restorable, which would be 'low magnitude effect' 'on resources of high, medium and low sensitivity ... resulting in an effect of minor adverse significance. 15.8.49

Comments regarding terminology:

1/ There is Inconsistency in terminology in different chapters between 'Project Substation' and 'Substation'. 7F is referred to as a Project Substation in 'Agricultural Land' (chapter 15) and 'Noise and Vibration' (chapter 12) and in other chapters as 'Substation' compared to others which are 'Project Substations.

2/ There seems to be no definitive description/specification of this individual substation: 'Substations comprise electrical infrastructure such as the Transformers, Switchgear and control equipment required to facilitate the export of electricity. The Transformers associated with the 132kV Substations *will either be* single or dual' (Substations (Work No. 3) 4.3.32)

There is also no definitive picture of what it will look like, other than maximum dimensions, and '*an example* of a 132kV substation is shown in image 4.8 below' (Substations (Work No. 3) 4.3.32)

3/ Appendix 4.1 provides 'illustrative technical information' but surely at this stage it should be possible/required to accurately describe and state the specification all the major infrastructure including this particular substation stating exactly what it will look like in this particular setting, what it will contain, how it will be accessed and constructed and how much removal of existing trees and hedgerows will occur.

5/ The document also doesn't make clear how long construction of this substation will take or whether it will happen in conjunction with other work in the vicinity, such as the construction of

access roads, the construction of the workstation on 7D, piling for the panels. This is Important because the sequence and conjunction of construction will have a major cumulative impact on noise, vibration, local road disruption etc in the local area.

6/ And, as a general point, the submission is often very hard to access (particularly the 'Works' section), navigate and understand. This scheme proposes a massive and widespread industrialisation of gentle and tranquil countryside that has little changed in centuries and there should be a major responsibility on the part of the applicant to provide transparent communication and clear documentation.

7F is bordered by an ancient woodland (Saxlingham Grove) which is a designated SSSI and is a known Barbastelle bat maternity locality. The land parcels are a mixture of grazing pasture and arable and are also currently under countryside stewardship subsidy.

The area has numerous long-established hedgerows and mature boundary trees. Its topography is typically flat with far reaching views, therefore making the installations even more unsightly to nearby residents and walkers.



A view over the meadows from the footpath along the boundary between Hemphall and Saxlingham east of Broaden Lane. All of these meadows (as far as the eye can see) would be covered by solar panels and these large meadows are merely a small part of the total scheme area.

6: Climate Change

The EIA fails to provide a robust, site-specific assessment of the scheme's resilience to climate change and the potential for the development itself to exacerbate local climate risks.

There is no quantification or modelling of how the extensive area of solar panels may increase surface water runoff, exacerbate flash flooding, or alter groundwater recharge, particularly considering climate projections for more intense rainfall events.

Nor does the EIA consider whether the introduction of large-scale hard infrastructure could lead to localised overheating, changes in wind patterns, or drought vulnerability affecting adjacent farmland and communities.

The absence of a detailed local climate risk assessment and adaptation strategy falls short of best practice and EN-1 requirements for demonstrating that both the project and surrounding communities will not be made more vulnerable because of the development.

The heavy clay soils and flat topography make much of Plots 7D and 7F prone to surface water flooding.

Revised climate goals and an accelerated drive to deliver clean power by 2030 in the UK have served to advance larger solar farm expansion as a relatively risk-free straightforward element in the climate change portfolio supporting mitigation by producing low-carbon energy (Department for Energy Security & Net Zero, 2025).

However, solar farms change soil/plant interactions which will counteract some of its climate mitigation effects due to carbon and nitrogen losses to the atmosphere (Luuk Scholten, 2025). Indeed, there is an increasing body of evidence that large-scale developments, such as that proposed here, require far greater detailed planning to mitigate against harm to the delicate, discreet local ecosystems that may result in land degradation, biodiversity loss, and/or soil contamination, within the lifetime of the project. (Luuk Scholten, 2025; Alona Armstrong, 2024).

Further, this acknowledged biodiversity and ecosystem system complexity, advances the 'integration principle' whereby a balance should be sought between clean growth and environmental protection in any proposed adaptation or mitigation initiative (Trudie Dockerty, 2024; Department for Energy Security & Net Zero, 2025). This principle must necessarily influence both structure and composition and the monitoring and ongoing management of these larger infrastructural developments. Proliferation of the earlier, rudimentary 'cut and paste' initiatives will simply no longer serve, particularly in the wider context of climate change (Trudie Dockerty, 2024).

There is a growing body of expertise (both national and international) across all the key elements here that can support the necessary re-engineering of these earlier outdated initiatives, to more closely balance the demands of carbon free energy with biodiversity and ecosystem requirements (Department for Energy Security and Net Zero, 2024). This will of course require greatly enhanced engagement, energy, and innovation and from all the key players here and ultimately perhaps a significant redraft/resubmission if the project once fully understood and balanced accordingly, remains viable

In brief, vital elements noticeably absent in the current EIA include,

- A robust, site-specific assessment of the scheme's resilience to climate change and the potential for the development itself to exacerbate local climate risks alongside action/options to mitigate
- There is no quantification or modelling of how the extensive area of solar panels may increase surface water runoff, exacerbate flash flooding, or alter groundwater recharge, particularly considering climate projections for storm intensification
- With global temperatures forecast to increase in a range from 1.5°- 4°C by 2050, heatwaves will become more common. Increased heatwaves will affect solar productivity - PV panels decrease in efficiency by 0.3% - 0.5% per PV panel temperature degree

increase above 25°C.- this is neither acknowledged nor implications to yield/viability explored (Alona Armstrong, 2024)

- The potential of the introduction of large-scale hard infrastructure leading to localised overheating, changes in wind patterns, or drought vulnerability affecting adjacent farmland and communities is likewise unexplored.

A comprehensive mapping of the ecosystem variants across the project's footprint, to support preservation and to identify restorative opportunities in biodiversity and ecosystem services.

Land management practices within solar farms can have both positive and/or negative impacts on hosting ecosystems e.g. **Agrivoltaic systems addressing both ongoing food production and ecosystem health. Developing these requires a full, thorough understanding of the area under consideration**

The absence of a detailed local climate risk assessment and adaptation strategy alongside a comprehensive biodiversity and ecosystem services review in the EIA here, falls far short of best practice and indeed the EN-1 requirements for demonstrating that both the project and surrounding communities will not be made more vulnerable because of the development.

References:

Alona Armstrong, F. C. (2024). Integrated Policymaking is Needed to Deliver Climate and Ecological Benefits from Solar Farms. *Journal of Applied Ecology*.

Department fo Energy Security and Net Zero. (2024). *Strategic Spatial Energy : Commission to the National Energy System*. London : Gov.uk.

Department for Energy Security & Net Zero. (2025). *Solar Road Map : United Kingdom Powered by Solar* . London: Gov.UK.

Luuk Scholten, R. G. (2025). Sharing the light, impact of solar parks on plant productivity, soil microbes and soil organic matter. *The New Phytologist* .

Trudie Dockerty, A. L. (2024). *Infrastructure Transformation for Net Zero: Environmental Risks*. UKERC Working Paper.

Site 7 is currently a Climate Change Vulnerability Buffer area (MAGIC msp). East Pye Solar has provided no information about how their proposal will impact that status.

Site 7 is edged and contains ancient and historic hedgerows as well as trees recognised by The Woodland Trust as Veteran and Notable. With the planned removal of many of these hedgerows in order to gain access to Site 7 as well as internal construction within the Site, East Pye Solar have not supplied any calculations on the loss of this important carbon storage mechanism when compared to the proposed replanted newer hedge. Whilst it is recognised that younger plants in the years between 6-12 years old absorb and sequester more carbon than established mature hedges, it has not taken account of the large carbon quantities that have already been locked in both the plant and the soil by the mature vegetation and that by removing these established hedgerows will release that trapped carbon. Calculations based on the estimates of rates of

Carbon uptake and storage of younger plants compared to mature hedging put the time span for a replacement young hedge to balance the loss of carbon capture and storage in the plants and the soil by the mature hedge at 60 to 100 years.

(Sci Total Environ 2023 Sep 20;892:164482. doi: 10.1016/j.scitotenv.2023.164482. Epub 2023 May 29. Planting hedgerows: Biomass carbon sequestration and contribution towards net-zero targets Sofia Biffi, Pippa J Chapman, Richard P Grayson, Guy Ziv,; Hedgerows increase soil carbon storage by 40%).

As part of this scheme, Site 7 has been managed to support long term biodiversity and ensure that wildlife habitats that have been connected for centuries remain so. Hedgerows have been maintained and encouraged, with wide margins left between planted crops and the boundaries as well as the natural watercourses that feed into the River Tas have been protected.

The Draft Development Consent Order (APP/3.1) March 2026 Section 11, Part 1 and Part 2 (Removal of Hedgerows and Removal of Important Hedgerows) list vast swathes of hedgerows across the scheme planned for removal. However, what isn't clear is exactly how much of, for example, '*part of 688m of section 67 on Sub-site 7D*' is to be removed. This vagueness will lead to catastrophic loss to established and important hedgerow as the Developer will have carte blanche on how much is removed.

7: Landscape and Visual

Saxlingham Nethergate lies within the South Norfolk and High Suffolk Claylands National Character Area (NCA), which occupies a large area of central East Anglia, stretching from just below Norwich in the north, down to the river Gipping in the south. The Claylands area is a relic of glaciation from about 480,000 years ago.

This area is a predominantly flat clay plateau that dominates the character of the NCA. The plateau is incised by numerous small-wooded river valleys. These river valleys contain an important mosaic of small-scale pasture, wet heath, reed beds and woodland that provide ecological connectivity into the heart of the claylands. It is mostly an ancient, long-settled landscape, and above all this is farming country, with a strong utilitarian and rural character, evoked best in its ancient irregular field patterns that are still discernible over much of the area. It is also characterised by its medieval churches, historic timber-framed barns and houses with colour washed walls and thatched or tiled roofs.

Norfolk Wildlife Trust is actively involved in a project to restore and improve wildlife habitats in the area (ref: Restoring the Claylands by Prof, Tom Williamson, University of East Anglia).

The earliest document relating to the village is the will of Wulfgyth dated 1046 leaving land in Saxlingham to her daughters. Parts of the church are dated from C11. Saxlingham Nethergate is a 'tail' shape leading down to The Green and currently home to approximately 700 residents.

Key Characteristics:

- Conservation area divided into three distinct parts with three greens

- Situated across the valley of a minor stream
- Developed as a linear settlement along the line of the stream
- Strong natural character with dense woodland to the east side (including Saxlingham Grove SSSI)
- Mature hedgerows and low brick/flint walls at front boundaries are key features

There is a total of 280 dwellings. There are 42 grade II listed buildings, of which 38 are dwellings. This is 13.6% of dwellings being grade II or Grade II*. Many of these listed buildings line the narrow unclassified road through the village (under 5 metres wide) and onto The Green where the road narrows further to measure 3.5 metres wide. Deep culverts and ancient walls run along the side of the road.

The two Conservation Areas sit within a typically attractive Norfolk arable landscape. The proposed panels in sites 7D and 7F will radically and adversely change the landscape setting of the Conservation Area demonstrating that the applicants have not paid any regard to the statutory duty imposed by section 72 of The Planning (Listed Buildings and Conservation Areas) Act 1990 that "...special attention shall be paid to the desirability of preserving or enhancing the character or appearance of that area..."

The grade II listed war memorial stands in the middle of the village at the junction of The Street and Pitts Hill. It was designed by FW Troup, unveiled in 1921, dedicated to the fallen and survivors of the 1st world war.

Drone illustrating narrow road heading west towards the green and corner of the war memorial (courtesy of Lockwood Chartered Surveyors).



Drone picture below looking west showing sharp right-hand bend at the war memorial



8: Ecology and Biodiversity

The South Norfolk Claylands

The area is part of the National Character Area 83 South Norfolk and Upper Suffolk Claylands which have been managed to keep their own particular character, where pockets of relatively well-preserved countryside have survived.

The local landscape has distinctive characteristics different from other parts of Norfolk.

These have arrived because of the way that people have interacted with the natural environment over centuries. These characteristics allow a **sense of place that is intimately bound up with the character of the countryside.**

The construction of solar arrays plus a 132kV substation on 7F, multiple access points across all twelve sub sites and an internal haulage route will all have a detrimental effect on the character and wildlife.

The patchwork fields act as wildlife corridors and habitat, each surrounded by mature hedgerows and tree lines, all quite typical of the topography in the area. These fields support much wildlife, undisturbed, including herds of native deer, hares, red listed birds, badgers and endangered bats.

Dark Skies

Norfolk is one of England's most rural counties and its rural landscapes and big skies, and dark skies are a defining part of this rural character, deserving protection. Seething Observatory is

within a few miles from Saxlingham Nethergate. Light pollution is caused by poorly designed or unnecessary light shining tastefully where it is not needed and it is increasing (CPRE Norfolk).

Much of the area for the East Pye Solar Scheme, away from settlements, are some of the darkest skies in Norfolk. Many people visit the area to star gaze, and the Northern Lights are regularly photographed from the area. Dark Skies support many nocturnal animals including multiple bat species, in particular the endangered and protected Barbastelle bat.

The lighting of compounds and construction areas as well as security lighting surrounding substations will have a cumulative impact to the Dark Skies across the area.

Site 7 lies within an area of Habitat Restoration-Creation (East Pye Solar EIA scoping report 01/25). The State of Nature report shows that much of the wildlife in the UK is in serious trouble:

- 1,500 species are now at risk of being completely lost.
- 43% of birds,
- 31% of amphibians and reptiles,
- 28% of fungi and lichens
- 26% of land mammals (State of Nature Partnership 2023).

Many threatened birds with declining numbers are found across the surrounding farmland surrounding Long Stratton, in hedgerows, wooded areas and ground nesting.

Red Listed Birds:

Lapwing	Swift (nesting)	Linnet
Fieldfare	Grey Partridge	Skylark
Greenfinch	House Sparrow	Mistle Thrush
Herring Gull	Turtle Dove	Yellow Hammer
Starling	Spotted Flycatcher	

Amber listed Birds:

Wood pigeon	Tawny Owl	Rook
Wren	Song Thrush	Bullfinch
Sparrow Hawk	Kestrel	Mallard
Stock Dove	Moorhen	Black Headed Gull
Common Gull	Common Whitethroat	Redwing
Dunnock		

Gamebirds including grey partridge and pheasants are known to nest in the area and are used for game shooting events by the landowner of Site 7F.

Yellow wagtails often nest in ground-level grass in damper areas, meadows and agricultural fields.

All wild birds and their nests are protected under the Wildlife and Countryside Act 1981 which makes it illegal to intentionally damage or destroy an active nest.

East Pye Solar intends to build on this type of breeding habitat and construction will take several years. Therefore, the birds breeding sites will be destroyed and disturbed. This cannot be mitigated against.

Many mammals are resident across these sites including:

Red Deer	Barbastelle Bats	Hedgehogs
Roe Deer	Pipistrelle Bats	Stoats
Muntjac	Natterers Bats	Weasels
Chinese Water Deer	Brow Long Eared Bats	Otters in the Tas
Hare	American Mink	Mole

Even once the solar panels are installed, the ongoing disruption to the environment, the loss of safe wildlife migration routes, especially down to the beck and along hedgerows and field margins, plus the loss of feeding and bedding areas would result in a significant impact on wildlife and the biodiversity of the area. It is very unlikely the ecological value of the area would ever recover.

Barbastelle Bats

Land Parcel 7 lies within a **Core Sustenance Zone (CSZ) for Barbastelle Bats**, linking it functionally to confirmed and likely maternity colonies within the wider Easy Pye landscape. CSZ land is essential for foraging, commuting and maintaining breeding success.

The proposed development would introduce:

- Extensive arrays and fencing;
- lighting, CCTV and inverter infrastructure;
- prolonged construction disturbance;
- loss and fragmentation of functionality linked habitat.

On this basis, **disturbance or damage to breeding and resting places cannot be excluded**, and the works would be **likely to require a European Protected Species licence**. The application provides **no lawful assessment of licence need or grantability**, and no evidence that the statutory tests (including maintenance of favourable conservation status at landscape scale) could be met.

Given the **cumulative CSZ overlap across multiple parcels**, this represents a **front-loaded legal constraint** rendering Land Parcel 4 **undeliverable in principle**.

Where a proposed NSIP is located wholly within overlapping Core Sustenance Zones for barbastelle bats and directly adjacent to multiple ancient woodlands supporting maternity colonies, the impacts of construction disturbance, habitat fragmentation, lighting, noise and long-term landscape disruption are **intrinsic to the scheme** and **cannot be reduced to a level that avoids adverse effects on the local barbastelle population's favourable conservation status**.

As such, the effects are **not capable of mitigation**, and the scheme is fundamentally incompatible with the Habitats Regulations.

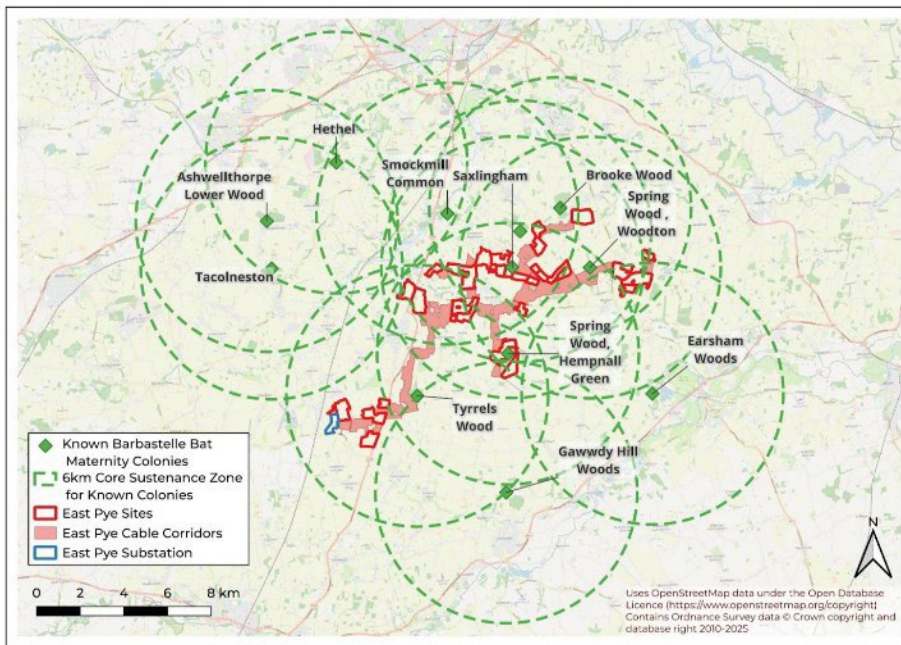


Figure 1. Core Sustenance Zones of Barbastelle Maternity Colonies within or close to the East Pye Solar Scheme Area

The map above is from A document titled 'Barbastell Maternity Colonies in the East Pye Solar Scheme Area' December 2025. Norfolk Barbastelle Study Group

The Barbastelle Bat is distinctive, elusive and very rare with big ears that meet in the middle and a flat pug-like nose. They live in deciduous woodland and like to hunt in wet woodland and meadow areas and environment very significant to that across the East Pye Solar Scheme.

Barbastelle bats enjoy a diet of moths, midges and beetles, which they hunt at night using echolocation. They hunt in a variety of habitats, particularly over water, and have a quick and skilful flight.

Echolocation is a way of sending out an acoustic call towards a smooth surface, like a pond, the sound bounces off the body of water. A new study in the UK has detailed how bats are confusing the smooth surfaces of solar panels for bodies of water.

With the tracking panels being at 0 degrees (horizontal) at night as they reset themselves this could be catastrophic for the colonies of foraging maternity bats.

They breed in the autumn although pregnancy is delayed until the rolling spring when nursery roosts and maternity colonies are formed. These usually consist of around 10-20 females and typically give birth to one or two pups in July.

Barbastelle Bats hibernate in the winter months often in old buildings and holes in trees. During mild spells they may head about to forage.

They live in deciduous woodland and areas with water, like woodland streams and ponds.

Barbastelle Bats are incredibly rare and protected under the Wildlife and Countryside Act 1981. They are also listed as Near Threatened globally on the IUCN Red List. They are thought to be as few as 5,000 in the UK.

South Norfolk is incredibly significant for Barbastelle Bats because it sits within a UK stronghold for this critically endangered, near-threatened mammal. There are twelve known maternity colonies surrounding and across the East Pye Solar Scheme each with a 6km Core Sustenance Zone radius for foraging. The region's mosaic of ancient woodlands, traditional hedgerows and quiet river valleys of the Claylands provides vital foraging and maternity habitats.

The Norwich Bat Group studied one of the maternity colonies at Tyrrels Wood adjacent to CRC4 and 500m from Site 2C, managed by the Woodland Trust which is also part classified as 'ancient'. It is the home to 15 roosts. The Norwich Bat Group were able to radio-track 11 females within the roosts. Four females foraged to the east, three to the west, crossing the A140. Three bats remained within [REDACTED] of the wood.

The 6km Core Sustenance Zones for Barbastelle Bats overlap each other and cover the whole of the Scheme Order Limits including Site 7.

Skylarks

- Skylarks are ground nesting birds commonly in open farmland, pastures and grassy fields like those surrounding Long Stratton at Site 7 as well as across the rest of the scheme.
- Classified in the UK as Red under the Birds of Conservation Concern 5: the Red List for Birds
- Male skylarks rise vertically from farmland, grassland etc to sing and parachute back down to earth.

Species that require long, open sight lines - specifically Skylarks and Lapwings are often displaced by the physical presence of solar arrays. Skylarks rarely nest within the arrays because their view of predators is obstructed by the panels. Lapwings typically avoid nesting in fields with vertical structures like panels or high hedges.

Any mitigation measures put in place must be carefully managed and designed to specifications suitable for individual species to survive. *Centre for landscape regeneration, University of Cambridge, RSPB 13/2/25*).

These birds are highly vulnerable to disturbances and organisations like Bird Aware Solent and the RSPB emphasise that adult birds will often desert nests if disturbed by dogs or walkers, leaving eggs or chicks vulnerable to cold or predators. Therefore, it can be extrapolated from this that heavy machinery and construction traffic would have a negative impact on these birds' nests too. (Norfolk Wildlife Trust, RSPB, British Trust for Ornithology: The Norfolk Bird Atlas, Game & Wildlife Conservation Trust).

East Pye Solar consider only 81 breeding pairs have been found across the scheme, yet skylarks are actively heard and seen across all fields.

Turtle Doves

Given their scarcity, the best chance of spotting them is in the early morning in early summer, listening for their distinctive "purring" song.

- **Best Time to See:** Turtle doves are summer visitors to the UK, typically present from **late April to September**.

- **Habitat & Habits:** They prefer farmland with dense, tall hedgerows for nesting and, crucially, access to water and seed-rich foraging areas. In this region, they may be spotted feeding on the ground or perched on telephone wires.
- **Conservation Status:** The UK population has declined by 99% since the 1960s, making them extremely rare. Local conservation efforts, often supported by initiatives like Operation Turtle Dove, are active in Norfolk to provide food and water to help them breed. RSPB

Lapwing

- Site 7 is part of the Priority Species for Countryside Stewardship Targeting for Lapwings.
- Lapwings breed on wet, grassy fields and arable and have been recorded on neighbouring fields to Site 7.
- Like Skylarks, Lapwings typically avoid nesting fields with vertical structures like panels and high hedges and are highly vulnerable to disturbances.

Lapwings occur in fields adjacent to Plot 7F but will be forced off during the construction phase and are considered unlikely to return once the panels are operational.

Great Crested Newts

Site 7 is a CORE strategic area of opportunity for Great Crested Newts with recorded colonies and sites within the Core 5 and Fringe 5 data.

- **Natural England** will only accept survey results carried out within the optimum survey period between **mid-April to the end of June**;
- **From Natural England**, 'a survey for Great Crested Newts should be conducted where there's a suitable water body such as a pond or ditch within **500 metres** (m) of the development, even if it only holds water for some of the year' Gov.uk;
- Great Crested Newts have been located on multiple ponds and water areas on sub-site across 7 and across the cable routes based on data records since 2006 up and until 2023 EPS Environmental Study Vol3; App 8.3 March 2026;
- East Pye Solar stated Surveys were to be carried out June 2024 and June 2025 on other ponds and water areas on sites;
- Further surveys were carried out on a 250m buffer zone and are dated towards the end of June (at the end of the optimum survey time) also into July, August and September;
- GCN were found to be on ponds and water areas within Site 7 and within the 250m buffer zone of sub-sites of 7;
- No surveys were carried out on ponds on CRC as ponds were not present on the online mapping and only discovered during CRC extended habitat surveys undertaken in late 2025 and therefore status is unknown but precautionary assumption is made. There are GCN on most ponds across the CRC;
- Some results were 'precautionary positive' due to no access or ponds were dry. Surveys on fields during key harvest times and during summer months, especially in June 2025 when the county had been in drought for months, is no surprise;
- Many local ponds have not yet been surveyed for Crested Newts by which there are breeding colonies;
- **Many natural habitats will be removed or disturbed, like significant hedgerows and foraging habitat, during construction;**

- The GCN population is considered important at a local level;
- Absence of a record labelled as 'inconclusive' does not mean there are no Great Crested Newts. It could mean there is no survey data available for that location or data could not be gained;
- In addition to the water ponds and streams circled below there are all the water courses and tributaries of the river Tas within proximity

Common Toads

In South Norfolk, common toads are protected under the Wildlife and Countryside Act 1981, which prohibits their trade, sale, or barter. As a NERC Act 2006 (Section 41) Biodiversity Action Plan species, they are considered a priority species, requiring developers and planners to mitigate against adverse effects.

Many villages have 'Toad Patrol' to help the toads crossroads to the safety of ponds for breeding.

Key protection details:

- **Legal Status**
- **Planning Protection:** Due to being a Biodiversity Action Plan (BAP) species, local planning authorities must consider impacts on toad habitats (ponds/terrestrial) during development.
- **Conservation Status:** Recognized as a species of principal importance.
- **Highways Consideration:** Planners and engineers must consider toad migration routes in road developments.

Badgers

Land parcels [REDACTED] support Badger setts.

The submitted badger information is redacted, so affected parties cannot determine whether these active setts have been identified, classified or assessed. This creates a serious uncertainty in the ecological baseline and in the assessment of construction disturbance, severance of foraging/commuting routes, collision risk, lighting, vibration, trench hazards and potential sett interference.

The Applicant should be required to confirm confidentially to the Examining Authority, Natural England and the relevant authority ecologists whether these setts are included in the ES badger survey; whether they are a main, annex, subsidiary or outlier sett; what activity level has been recorded; what buffer distances are proposed from haul routes, fencing, panels, trenches, lighting and construction compounds; whether any works would require a Natural England licence; and where those measures are secured in the DCO requirements and certified documents.

Given that the sett(s) lie in an area also associated with Barbastelle Core Sustenance Zone habitat, within a hydrologically connected landscape draining toward the River Tas, as well as Skylarks, Turtle Doves and Lapwings demonstrating the significance to ground nesting at Site 7, this cannot be treated as a minor isolated constraint. It is further evidence that across Site 7 forms part of a connected ecological network whose disturbance, fragmentation and cumulative effects have not been adequately fixed or assessed.

River Tas – Protected Chalk Stream

Chalk Streams are ecologically sensitive water bodies typically found in areas of chalk bedrock like that proposed by East Pye Solar. 85% of Chalk Streams are found in the UK and 10% of those are in Norfolk making the county globally important for this rare habitat.

Chalk Streams are one of the rarest habitats on earth with their crystal-clear water home to water voles, white-clawed crayfish, Norfolk hawkers, dragonflies and kingfishers; making them our equivalent to the Great Barrier Reef or Amazon Rainforest. A truly special habitat.

They are not just important in their own right, they are a fabulous corridor for wildlife such as otters, birds, bats - helping them move through the landscape.

Some risks posed to chalk streams in the construction, operation and decommissioning of a solar factory as follows:

- **Water consumption:** will increase reducing potential availability for chalk streams especially during dry periods.
- **Habitat Modification:** changes in land use will disrupt the natural habitats of flora and fauna that rely on chalk streams.
- **Runoff and Pollution:** construction activities like wheel washing can increase runoff and introduce pollutants like oils and chemicals that can adversely affect water quality in chalk streams.
- **Soil Compaction:** Heavy machinery used during construction, decommissioning and maintenance during operation will compact the soil affecting groundwater recharge and potentially altering the flow and quality of water feeding the chalk stream.
- **Erosion:** The removal of vegetation during construction can lead to increased erosion, which can introduce sediment into the stream and harm aquatic ecosystems.

The river and drainage network nearby in the River Tas catchment and South Norfolk agricultural landscape is part of a broader freshwater ecosystem that supports several species of conservation concern, including:

- White-clawed crayfish (endangered freshwater crayfish)
- European eel (critically endangered migrant fish)
- Water vole (nationally vulnerable)
- Otter and kingfisher (important indicator species)

These species are part of the biological value of river corridors in Norfolk, and their presence depends upon good water quality, habitat complexity and effective conservation management.

White Clawed Crayfish

The White-Clawed Crayfish is a freshwater bronze-coloured crustacean with pale undersides to its claws.

They live in clean, calcareous, oxygen-rich and slow-flowing freshwater streams, rivers, lakes, canals and quarries which are mineral-rich for their shell development.

They require an environment where they can hide and burrow like tree roots, woody debris, rocks and stones. Commonly shallow waters (under 1m) though they can inhabit deeper water.

Norfolk Rivers Trust has confirmed the presence of breeding colonies of White Clawed Crayfish in the river Tas and its tributaries.

White Clawed Crayfish are protected in the UK under the Wildlife and Countryside Act 1981, Annex II and V of the EC Water Habitats Directive and listed as Endangered on the global IUCN Red List of Threatened Species. It is illegal to take or disturb White-Clawed Crayfish without a licence.

Hedgerows and Significant Trees

According to East Pye Solar, across the Site 'the Scheme' will be designed to avoid removal and damage to hedgerows. Subject to final design, where this is not feasibly practicable, some removal of hedgerows may be required. Any removal would be in line with the Hedgerow Regulations (1997) 32 with necessary assessment taken place.

Veteran and ancient trees are living legends that have been a part of our landscape for generations. They are vital havens and habitat for wildlife and important carbon stores. Trees play a crucial role in regulating the climate and increase resilience to climate change. In the immediate term the habitats and benefits that mature trees provide cannot be replaced with newly planted saplings.

No other tree species in the united kingdom supports a greater diversity of life than an ancient oak

Saxlingham Green is lined with overhanging ancient oak (at least 12), dated over 500 years. Other trees such as horse chestnuts and lime dated over 200 years

Ancient and established hedgerows are critical, living infrastructure that provide immense, multi-layered benefits to both biodiversity and climate change mitigation, often acting as "superheroes" of the countryside. These, often centuries-old, linear habitats function as vital **wildlife corridors**, **carbon sinks**, and **natural flood management systems**.

Benefits to Nature and Biodiversity

- **Biodiversity Hotspots & Refuges:** Hedgerows support over 600 plant, 1,500 insect, 65 bird, and 20 mammal species. They are essential habitats for threatened species, including the **hazel dormouse**, hedgehogs, and the brown hairstreak butterfly.
- **Green Corridors (Wildlife Highways):** In fragmented landscapes, established hedges act as crucial, continuous green arteries, allowing species to move, forage, and spread safely between isolated woodlands and fields.
- **Food and Shelter:** They provide year-round resources, including berries, nuts, and nectar for pollinators, and act as nesting sites for farmland birds (supporting up to 80% of woodland/farmland bird species).
- **Nursery for Predators:** Hedgerows house predatory insects (like ladybirds and beetles) that naturally control agricultural pests, reducing the need for pesticides.

Benefits to Climate and Environment

- **Carbon Sequestration & Storage:** Like trees, hedgerows lock up significant carbon in their woody biomass, leaves, and roots. Crucially, the soil beneath established, older hedges can store up to **40% more carbon than surrounding grassland**, making them a major long-term carbon sink.
- **Soil Stabilization:** Their deep, established root systems bind the soil, reducing erosion from wind and water, which is essential given that 1 inch of topsoil can take over 500 years to form.
- **Flood Mitigation & Water Quality:** Hedgerows act as "sponges" and physical barriers that intercept heavy rainfall, slowing water flow and increasing infiltration, thus reducing flood risks. They also reduce water-borne pollution by trapping fertilizers and pesticides before they enter watercourses.
- **Microclimate Regulation:** They provide vital shade and shelter for livestock and crops, reducing heat stress in summer and protecting against cold winds and snow in winter.
- **Air Pollution Capture:** In both rural and urban areas, hedgerows, particularly those with rough, hairy leaves, trap air pollution particles
- No surveys have been carried out on road boundaries and verges across the Scheme. Many verges are supported by the Roadside Conservation Scheme and will be impacted with heavy construction traffic and access points for Cabling and Sites.

9: Water Environment

Rivers, Streams, Ditches, Culverts

Culverts and ditches run alongside the narrow road through the village from The Green. These culverts will undoubtedly be damaged by the planned HGV traffic.

The photo below, of the road between Saxlingham Nethergate and Hempnall, at the bend at the start of The Green TM2380 9660, looks just like a regular road but underneath is a bridge and a culvert. This bridge is opposite an ancient wall. If indivisible loads pass through, they will almost certainly damage the culvert and the wall.



Photo below TM2292 9740 shows a flowing ditch runs alongside The Street in Saxlingham Nethergate, edged on the roadside of the ditch by a part wooden and part brick retaining wall between vertical metal supports and white metal railings.



This is the proposed route for the AIL and we are concerned that the weight of such loads would cause damage to the sides, if not total collapse. The vehicles could not keep away from this vulnerable edge because of buildings, pedestrian paving and residential garden boundaries e.g. brick walls on the opposite side of the road. Large volumes of surface water run-off collect near the war memorial during heavy rain, e.g. running down from Wash Lane (where an improvement scheme is about to start), Church Hill and Pitt's Hill, and a large culvert under a footbridge feeds into this ditch (see photo below) so any damage to the ditch could cause flooding to surrounding properties

Below - Culvert on The Street, near War Memorial, Saxlingham Nethergate TM2298 9712



Flooding



Flooding on route through Saxlingham Nethergate Grid ref: TM2298 9712

Appendix A, utilising EA Open Data datasets available online and reproduced with OS mapping under licence. The Flood Zone and Risk of Flooding from Surface Water (RoFSW) maps utilise the extents from the EA National Flood Risk Assessment ('NaFRA2') mapping updates released early 2025.

Historic Flooding Records

The NCC Flood Investigation Reports indicate that flooding has occurred on local roads and properties of villages in the vicinity of the Order Limits, including Saxlingham Nethergate, Hempnall, Woodton and Long Stratton. The mechanisms of flooding were considered to be unmaintained drainage systems, with locations of properties adjacent to, or within, an overland flow path and the design standard of the drainage systems being unable to cope with significant rainfall events.

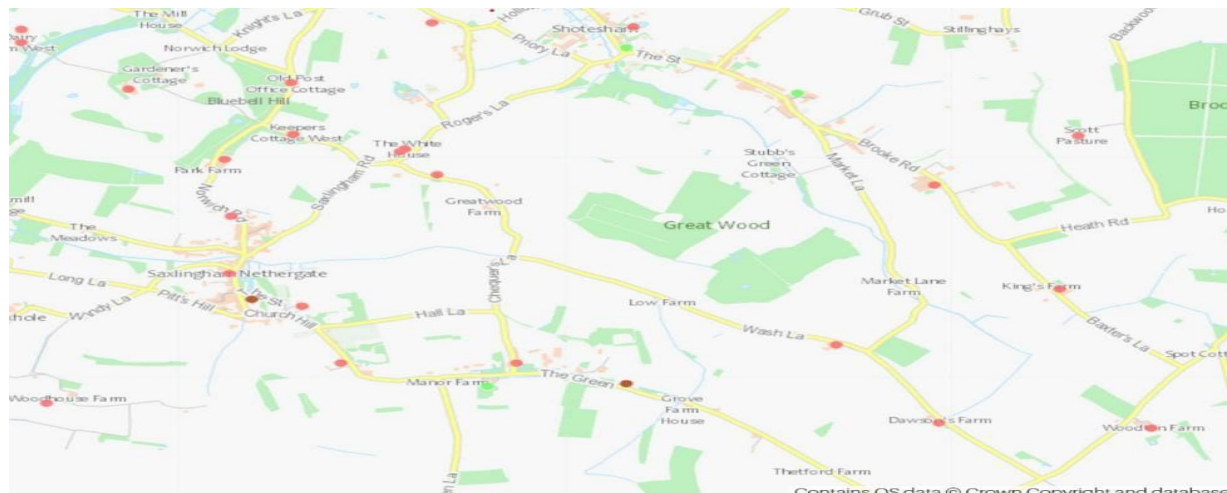
This makes no reference to the internal flooding of properties in The Street in Saxlingham Nethergate in December 2020. The Street forms part of the abnormal load route. During the 2020 event, flowing floodwater accumulated on the highway to a depth of some 15 cm and was materially exacerbated by some inconsiderate driving displacing water toward residential properties. The actual flooding experienced demonstrates that mapped data sets and modelling alone may not provide a complete representation of local flood susceptibility or surface water behaviour during severe rainfall events when there is heavy traffic along the roads. The flood risk assessment is therefore incomplete.

Given the inconsistencies mentioned above it is submitted that too much information is deferred or unclear and given the scale and cumulative effect of the scheme, residents and other people impacted should be clear and fully consulted.

Land parcels 7D and 7F are on heavy clay soil, as are the surrounding fields and public footpaths and bridleways. Many of these paths become badly flooded after heavy rain. The garden of one of the houses overlooking 7F, Woods End Cottage, that abuts a field next to 7F, is water-logged all winter and sometimes at other times after heavy rain, as is the field next to 7D. The concrete plinths, pads and pilings for the panels, inverters and substation will undoubtedly exacerbate this flooding for surrounding fields, roads and properties.

Private Drinking Water Supplies

According to The British Geological Society, the onshore private water supplies map shows bore holes along the route through Saxlingham Nethergate and The Green. The red dots on the map below illustrate the locations.



Drinking Water Protection Zone (SPZs)

The area between Tasburgh and Hempnall is within a designated water protection area. Specifically, this area is part of the water protection in this area.

- **Drinking Water Safeguard Zones (SgZs):** The area is monitored for water quality, with specific attention to protecting water sources used for drinking.

Contamination risks to Public and Private Drinking Water Supplies

The influx of construction workers across the whole scheme will impact water and waste management during the 2-3 years the East Pye Solar project will take to build and subsequently dismantle. Flooding and groundwater resulting from wheel washing, pile driving and land disruptions will all have the potential to drain towards the chalk stream and lead to contamination of the water course. Land parcel 7A Tasburgh slope towards the tributary of the Tas as can be seen on OS Explorer 237 Norwich map.

- **Planning Constraint:** Any new development in the River Tas catchment that provides overnight accommodation (homes, hotels, etc.) must prove it will be **"nutrient neutral"** before planning permission is granted by South Norfolk Council.
- **Mitigation:** Developers must often use the Norfolk Nutrient Budget Calculator to determine how much nitrogen and phosphorus their project will add and find ways to offset it

Risks of Pile-Driven and Concrete-Mounted Infrastructure to Private Drinking Water Supplies

East Pye Solar Project proposed plan for Site 7D and 7F is for the construction of solar arrays. These land parcels will be impacted as detailed below;

Concrete-mounted infrastructure—such as building foundations, pilings, paving, and retaining walls—can significantly impact private drinking water supplies (wells, boreholes, and springs) primarily through chemical leaching and physical disruption of groundwater flow. These impacts are most severe during construction and for a period after, as fresh concrete is highly alkaline and releases pollutants;

1. Chemical Contamination (Leaching)

- **High pH and Alkalinity:** Fresh concrete and grout are extremely alkaline (high pH). Rainwater or groundwater passing through or over new concrete structures can dissolve cement components, leading to "leachate" that increases the alkalinity of nearby groundwater.
- **Heavy Metal Contamination:** Concrete leachate can contain heavy metals and harmful elements that contaminate water sources, including chromium (particularly Hexavalent Chromium VI), arsenic, barium, lead, zinc, and nickel.
- **Sulphate and Mineral Release:** The leaching process can increase sulphate, calcium, and mineral content, which may make the water taste metallic, appear cloudy (turbid), or exceed safety standards for human consumption.
- **Interaction with Disinfectants:** If water containing disinfectants (like chlorine) comes into contact with new cement surfaces, the leaching of pollutants—including aluminium and chromium—can increase significantly. [Springer Nature Link](#)

2. Groundwater Disruption and Physical Damage

- **Alteration of Flow Patterns:** Deep foundations, pilings, and retaining walls can act as barriers that disrupt natural groundwater flow, causing water to rise upstream of the structure or reducing the supply (yield) to nearby wells.
- **Dewatering Risks:** During the construction of concrete structures (e.g., in deep excavations), contractors may pump out groundwater. This "dewatering" can temporarily or permanently lower the water table, reducing the yield of nearby private wells.
- **Creation of Contaminant Pathways:** Improperly designed or installed concrete foundations can create new, preferential pathways for surface pollutants to travel directly into aquifers, bypassing natural soil filtration. [Preene Groundwater Consulting](#)

3. Structural Vulnerabilities

- **Porosity of Old Infrastructure:** While concrete is generally durable, older concrete tanks or wells can develop cracks, allowing surface contaminants (bacteria, nitrates) to enter the drinking water supply.
- **Weakened Structure:** Soft groundwater can react with concrete, causing it to deteriorate over time, further increasing the potential for contaminants to leach into the surrounding ground. [Springer Nature Link](#)

The River Tas catchment is managed to reduce flood risk through a combination of local and national agencies.

- **Permit Requirements:** For works on or near the "Main River" sections of the Tas, you must apply for a Flood Risk Activity Permit from the **Environment Agency**. For "ordinary watercourses" (smaller tributaries), you must contact the Norfolk Rivers Internal Drainage Board (IDB) for consent.
- **Sustainable Drainage (SuDS):** All new developments must follow Norfolk County Council's drainage design standards, ensuring that surface water run-off does not exceed greenfield rates. Water Management Alliance

River Catchment Area

A highly protected chalk stream with significant environmental and ecology benefits.

An area already subject to environmental pressures including nutrient enrichment, sedimentation, and chemical pollution. Development risks exacerbating these issues through land disturbance, runoff, and loss of riparian buffers, undermining efforts to improve water quality and aquatic habitats.

Norfolk Rivers Trust has confirmed the presence of breeding colonies of white clawed crayfish in the Tas and its tributaries.

10: Cultural Heritage

East Pye's own documents play down the importance of this heritage area by describing as follows: *'Due to their prevalence in the area, Grade II Listed Buildings are reported up to 100m only....Any Grade II Listed Buildings that are pertinent to the assessment of likely significant effects that are over 100m are discussed in Chapter 9'*. It's like saying that only some matter, whilst others are insignificant. Instead of acknowledging the area as a significant heritage asset.

The name "Saxlingham" indicates 'the home of the folk of Seaxe' and was first mentioned in an Anglo-Saxon will of 1046, although evidence has come to light of an earlier Roman Villa to the north of the parish. Saxlingham Thorpe could have been a later Danish/Viking settlement, as the names suggest or English, since 'thorpe' means a 'subsidiary settlement'. Indeed, Saxlingham Thorpe was formerly 'Uppergate' as distinct from Saxlingham Nethergate which derives from the old English for "Lower Street". The part of the village now known as Saxlingham Green has always been part of Saxlingham Nethergate, and was known as "Eastgate Green" at least as late as 1871.

Saxlingham Green probably developed as a typical 'green village' as a settlement of small farms surrounding a green on which all had common rights. It probably began as a later medieval 'hiving-off' from the original village, the initial clearing of The Green itself being carried out communally.

The 20th Century has seen the increased popularity of the area as a prime commuter location lying as it does in attractive country surroundings only a few miles from Norwich and other major transport routes to the south. Many villages and hamlets lying south of Norwich have evolved in this way as the mobility of the car has encouraged commuting to major centres of employment.

This trend has been accompanied by a gradual reduction in employment opportunities within the villages themselves and surrounding countryside.

The effect of these trends in the villages has been a gradual decline of the traditional infrastructure such as village shops, post office, pubs, and local industry connected to agriculture. House values have generally risen due to the attractiveness of the location to the extent that young people from the village itself can rarely afford the housing within it and so have to move away, leading to yet further reduction in things like leisure facilities.

Saxlingham Green provides a typical example of these trends. The results of the change in farming practice and major shifts in wealth have led to dramatic changes in property ownership. Most property is now owner occupied, cottages have been amalgamated and extended, farmhouses generally no longer contain farmers, stables and barns have been converted and at the end of the 20th Century it is difficult to see how significant further development could be accepted without damaging the essential character of the area. The Saxlingham Green Conservation Area was first designated in 1973.

Character Assessment

Saxlingham Green is defined more by the natural elements in the landscape than by the buildings within it. While there are a number of fine historic buildings important in their own right, they are secondary elements and are often lost behind trees and hedges. Whilst the appraisal looks at the two elements separately, the essential character of the area is partly generated by the interaction of these two components.

Saxlingham Green occupies a plateau site to the southeast of Saxlingham Nethergate, and is set amongst a rural agricultural topography of a dissected plateau typical of this part of South Norfolk.

Impacts on Conservation Area

The proposed panels in sites 7D and F will dominate the southern boundary of the **Saxlingham Green Conservation Area** and destroy the attractive and unspoilt southern setting of the conservation area. The relationship of the solar panels in sites 7D and 7F to the Saxlingham Green Conservation Area are all too clearly shown on the map in section 10.1 above. The approach to Saxlingham Green from the village of Hempnall will be through an avenue of solar panels that will destroy the current rural character of the road and replace it with an industrial landscape. The proposed sub-station on site 7F will inevitably be a prominent feature in the landscape further eroding the rural character of the setting of the conservation area.

Impacts on Grade II* and Grade II Listed Buildings

There are 10 grade II listed buildings within the Saxlingham Green Conservation Area and a further 32 grade II listed buildings throughout the village, three of which are grade II*. Many of these properties are in very close proximity to the road and are timber framed with little or no foundations. Damage caused by vibration from Indivisible loads cannot be mitigated.

Below is a table of the buildings that will be affected by the route, and, in some instances, the proposed solar land parcels.

Grade II listed dwellings on the route through Saxlingham Nethergate AIL route (not including The Green as already discussed). All of these will be severely affected by the proposed AIL route and cannot be mitigated

House name	Location	English Heritage ID	Century built	Timber framed	Clay lump	Foundations
Salletts Farmhouse	The Street (west)	226656	19	Yes	N/K	N/K
Saxlingham House	The Street (west)	226655	16	No		No
Nethergate Cottage	The Street (west)	226654	19	No	Wattle & Daube	No
Belcoombe Lodge	The Street (west)	226653	19	No	No	Shallow
Yew Cottage 17c	The Street (west)	226652	17	Yes	Yes	Shallow
Old Carriers Arms	The Street (west)	226651	17	Yes	Yes	No
The Old Bakery	The Street (west)	226650	18	Yes	Yes	No
Beechview	The Street (west)	226649	16	Yes	Yes	No
25 The Street	west	226648	17	Yes	No	No
Corner Cottage	Corner of Pitts Hill & The Street	226646		Yes	Wattle & Daube	Shallow
War Memorial	Corner of Pitts Hill & The Street	Source ID 1448984	20	N/A	N/A	
K6 telephone kiosk	Pitts Hill	226705		N/A	N/A	
The Cottage	Church Hill (South)	226632	17	Yes	Yes	Shallow
Adelaide House	Church Hill (south)	226633	18	Yes	Yes	Shallow
Church Hill Cottages	Church Hill (south)	226634	16	Yes	Cathy	
The Lilacs	Church Hill (south)	226635	19	No	No	N/K
Hill House	Church Hill (south)	226623	17	Yes	N/K	N/K
Boundary Wall to Rectory	The Street (east)	226657	19	N/A		
Tudor Cottage	Church Hill (north)	226631	18	No	No	N/K
The Old School	Church Hill (north)	226630	18	Yes	No	Yes
The Old Rectory	Church Hill (north)	226629	18	No	No	N/K
Grade II*						
Church of St Mary	Church Hill (north)	226628	c11&12 in parts	No	No	N/K
Grade II* medieval						
Old Hall	Church Hill (north)	226627	17	Yes	No	None
Grade II*	Moat 1metre from road & C19 swimming lake 3 metres from road.					
Manor Farmhouse	The Green (NE corner)	226644	16	Yes		
Manor Cottage	The Green (NW corner of Broaden Lane).	226625	17	Yes		
Manor Farmhouse Barn	Broaden Lane NE corner	226645	17	Yes	N/K	N/K
Saxlingham Hall	The Green	226638	18	no	No	N/K

Queen Margaret Cottage	The Green	226643	16	Yes	N/K	N/K
Orchard Cottage	The Green	226642	16	Yes	N/K	N/K
Green Farmhouse	The Green	226641	16	Yes	N/K	N/K
Holly Cottage	The Green	226637	19	No	Yes	No
Hall Farmhouse	The Green	226639	16	Yes	N/K	N/K
Cannon Cottage & adjoining Cottage	The green	226640	19	Yes	N/K	N/K

Old Hall is a grade II* listed Manor House dating back to the 17th century on Church Hill with grounds abutting the road. It has a medieval moat one metre from the road and an ancient swimming lake approximately three metres from the road. The building is listed under the Planning (Listed Buildings and Conservation Area) Act 1990 as amended for its special architectural or historic interest. Photo of Old Hall below:



An example below of a listed building in very close proximity to the proposed AIL route.



Several unlisted properties look directly across to the two sites. At least one of these properties is timber framed clay lump dating back to C1730.

Three grade II listed properties are located at the south-west end of the Green and look directly across the proposed solar panels in 7D and 7F (less than 150 m).

The photo below is looking East over Broaden Lane.



The remaining 7 grade II listed properties within the Conservation Area are on the north side of the road running through Saxlingham Green.

The photo below is of Broaden Lane, looking south towards Hempnall



The proposed panels on land parcel 7D will have a negative impact on setting of the Remains of the Church of St Mary, a Grade II* listed building located some 300m to the north-west of site 7D and Hill House, a grade II listed building, which is on the AIL route and also less than 500 metres to the north of site 7D.



The photo above shows Manor Farmhouse, a C16 Grade II listed timber framed dwelling (226644) on the junction of The Green and Broaden Lane. Both an AIL route and HGV route. The house is very close to the road and the bend in the road and would be heavily impacted on (noise, vibration, damage to road verges and possibly their property) during construction, with AIL route and a construction workers site within close proximity. The damage to this, and other properties cannot be mitigated. The panels will be visible to this property.

Manor Cottage (photo below) a C17 grade II listed timber framed dwelling (226625) on the northwest corner of Broaden Lane and on the junction of The Green, will be heavily impacted on during construction due to the close proximity to the road and the bend. The construction workers site is to the south of this property in close proximity. The panels will be visible to this property.



The drone photo below shows the bend and narrow road between the two houses (Manor Farmhouse and Manor Cottage). They will be subjected to heavy goods vehicles travelling on the right hand bend and the AIL route of the left hand fork onto the green (courtesy of Lockwood Chartered Surveyors).



Saxlingham Hall is a C18 grade II listed (226638) nursing home on the Green. The residents and staff would be impacted on during construction due to the AIL route and upheaval of the green track which is an unclassified 3.5-metre-wide road. This is much used for residents in wheelchairs and walkers. There is no facility for anyone to move aside when traffic approaches. Currently not an issue as it is a very quiet lane.

Queen Margaret Cottage (226643), Orchard Cottage (226642) and Green Farmhouse (226641) are all C16 Grade II listed timber framed dwellings towards the western entrance to The Green on the northern side of the lane, and will be impacted by noise, vibrations and the damage to the verges at the end of their drives.

Drone photo below of AIL route on The Green travelling east (Courtesy of Lockwood Chartered Surveyors).



Community Identity and Well-Being Rooted in Cultural Heritage and Historic Landscape

The whole area has been shaped by:

- Centuries-old agricultural landscapes;
- Historic field patterns and ancient hedgerows particularly seen across cable route 4;
- The visual presence of Grade I listed Churches often with round towers synonymous with East Anglia where bricks were in short supply so right angles were not possible to build;
- The Roman Pye Road (A140) offers centuries of history and archaeological finds;
- Generational farming of land use;
- Shared cultural history of working the land;
- A community of multi generations that support each other and come together to celebrate events across the annual calendar including the Remembrance Day parades to the village war memorials.

This is not just a place where people live, and the fields are not just scenery. Rural communities are embedded far more than those in cities and larger towns. They possess a distinct sense of identity, characterised by a deep, emotional connection to a specific, often intergenerational place. The identity is built upon shared values, local traditions and agricultural heritage.

11: Transport and Access

The East Pye Solar is proposed to take 24 months at least to complete construction and with that includes considerable disruption across local road networks, footpaths and bridleways.

Impacts on Road Network

East Pye themselves admit that the impact will have a negative effect. But their 'temporary impact' will be across the construction time of the scheme of at least **24 months**, on multiple local roads, especially as the A140 and B1527 will be used as main haulage access routes for the northern section of the scheme and the A140 for the whole of the scheme.

Construction Phase: Temporary increases in traffic volumes, particularly from HGVs and AILs transporting materials and equipment, will lead to congestion, increased wear and tear on local roads, and disruption to access for local residents and businesses. There will also be short-term detrimental road safety associated with construction traffic movements.

Operational Phase: As the panels and infrastructure have a limited life expectancy, they will require replacing during the 60-year lifespan of the scheme.

Panels will require changing 2-3 times, as will the batteries. Residents therefore can expect further disruption across the scheme with increased haulage and AILs manoeuvring the quiet, narrow country lanes.

Decommissioning phase: like the construction phase, decommissioning activities will result in temporary increases in traffic volumes and associated disruption to local access and road safety for up to 24 months.

Figure 11.1 shows other minor roads that are within the study area including:

- Mill Lane/Norwich Road - **this is closed until further notice and may be permanently closed**
- Cargate Lane - which is in Saxlingham Nethergate (not Hempnall Green as stated in document) and is not suitable for two-way large vehicle movements, and in some places not wide enough for two cars to pass
- The Street/Church Hill, Saxlingham Nethergate - on street parking, a primary school and pinch points make this unsuitable for HGV vehicle movements where two-way traffic is not possible (also very old water and sewerage pipes under carriageway)
- The Green/Bussey's Loke - narrow single track with no passing places, also route of Boudicca Way (long distance footpath) resulting in high pedestrian use

AIL Route for transformers to substation on site 7F

It is clear that the AIL route has been planned from behind a desk and the consultants have not set foot within the village - "swept path assessment has been constructed from client supplied data and OS Mastermap Data"

Appendix D AIL report (APP-176) gives lots of measurements and complex diagrams but uses vague phrases such as "street furniture positions are approximate" and referring to the route as "considered to be negotiable" **This does not provide sufficient accuracy.**

On page 14 of the report regarding sites 7D, 7E & F in the table under "Any known problems for AIL access in terms of negotiability and other route comments" it states, "Oversail along the route to site is anticipated to remain within the public highway boundary" **This suggests that there is no need for remedial works, this conflicts with their assessment late in the report**

In attachment 6 (swept path assessment):

On diagram (24-1221.SPA08) along The Street passing the War Memorial it refers to "caution advised" regarding street furniture and overhead wires but "expected oversail" is "expected to be within Highway boundary"

Leader 4 - suggests remedials to foliage depending on time of year - This point is located at the narrowest part of Church Hill where on the north side is a grade 2* retaining garden wall with a wrought iron fence atop (The Old Rectory). This wall holds up circa 3ft height of soil into which a yew hedge is planted - no amount of *trimming of foliage* is going to widen the route without demolishing the wall/fence. On the south side is The Granary (dwelling) which is situated right up to the pavement. This has not been recognised in the report.

All the way along this part of the route through Saxlingham Village and around to Broaden Lane it is suggested that "subject to the implementation of the recommended remedial works, and observing the stated cautions, this section is considered to be physically negotiable"

The remedial works thus far include trimming/pruning to hedges/trees, and the removal of bollards on the section from The Green around to Broaden Lane.

The dimensions that are being given in this report leave very little room, in some parts of the route only centimetres, for any error (whether human or mechanical) which may result in permanent damage to property and infrastructure. Consultants need to visit the village and do an in-depth analysis of the AIL route, including proper site surveys.

The weight of these AIL vehicles, although spread over several axles, are likely to damage services which run under the road in the village including water and sewerage pipes (some of which are asbestos, pitch fibre and fragile). Many of the houses along the route through the village are historic grade 2 listed and some have limited foundations which may be damaged by heavy loads. The war memorial is also listed and in danger of damage

In the 24 hours before May 30 2026 East Pye planning maps appeared around the village that are different from those presented in previous consultations, with areas of land shaded that are of interest to the development - these are bullying tactics that are unsettling to residents and contravenes public consultation requirements.

AIL Route for Cable Drums to cable route CRC10

The definitive route for the AIL cable drums is not clear. The Construction Traffic Management Plan (CTMP)(APP-201) is only an outline document - "final AIL routing will be confirmed at the detailed design stage".

Figure 8 in the CTMP & Figure 11.8 (APP-095 Likely & suitable routes to the scheme) shows the AIL cable drum route using The Green (Saxlingham) to access CRC10

APP-176 ES Volume 3 Appendix 11.1 Transport Assessment Part3

Attachment 11 - Cable Drum Highway Access Location Summary

This document shows that access along Saxlingham Green is non-negotiable (coloured red in table) stating "Narrow Road widths along The Green restrict access" for access point 3.1

Moving the access point to 3.2 on The Green (coloured amber in table) would require "High amount of remedial works"

The Green is a conservation area with a very narrow carriageway (3 metres wide in places), which is also the route of Boudicca way (long distance footpath) resulting in high pedestrian use.

Alternatively, the CTMP (APP-201) in section 6.2 suggests delivery of cable drums will be to one of three CRC temporary construction compounds and then onwards using internal routes.

Because of these inconsistencies, it is not clear which route is being proposed.

Haul Roads

The scheme proposes numerous, extensive haul roads to facilitate the construction and on-going management and maintenance of the project. The heavy clay topsoil means that these roads will have to be constructed with a firm foundation to prevent the surfaces sinking into the clay in wet winter weather. The material excavated for the foundations is to be stored alongside the tracks. The combination of the material excavated for the foundations, the foundation material that will have to be imported, and the passage of the 60-year life of the consent casts severe doubt of the ability of the land to be restored to good agricultural use following the expiry of the DCO.

The construction phase of these haul roads will inevitably be both extremely noisy, dusty and disruptive for the nearby inhabitants. There will be increase in traffic in the surrounding area of very narrow country lanes. Following construction, the use of the tracks by maintenance vehicles will generate some noise, dust and disturbance that will impact on nearby houses and users of the PROW's affected by the scheme. The impermeable nature of the road surface will cause significant run-off onto the already flood prone surrounding land.

The project necessitates widening existing roads, removing vegetation, (many veteran and ancient oaks and hedgerows live at the roadside along the route) and removing street furniture to allow for Abnormal Indivisible Loads (AILs) for transformers and cable drums.

Impacts on Existing Traffic - HGV and Vehicle Movements:

East Pye Solar state the **daily** movements are:

- 69 HGVs will arrive and depart across the scheme = 138 in total
- 205 daily cars/shuttles/LGVs will arrive and depart across the scheme = 410 in total
- In fact, the impact will be greater as the HGVs will be using the compound at 4A as a holding area. Therefore, the HGVs for Site 7A-F will impact the roundabout 3 times as they arrive, called forward and exit again.
- **The impact on the roundabout for sites 7A-F will be total of 33 HGV journeys and 78 Other vehicles, daily**

Inconsistent information

Some examples of inconsistencies in documentation submitted:

There is no mention of a temporary construction compound within land parcel 7 on the planning Inspectorate website: [EN0110014-000127-6.2.4.2](#) Environmental Statement Volume 2 Figure 4.2 Indicative Temporary Construction Compound Locations.pdf. AP060

However, there is a map on the East Pye solar website that clearly shows a temporary construction compound within land parcel 7D. The information is contradictory and unclear

Clarification is required regarding the intended construction use of Parcel 7D and whether any temporary compound, laydown area, welfare facility, storage area or other construction logistics activity is proposed there.

There is Inconsistency in terminology in different chapters between 'Project Substation' and 'Substation'. 7F is referred to as a Project Substation in 'Agricultural Land' (chapter 15) and 'Noise and Vibration' (chapter 12) and in other chapters as 'Substation' coA map in the document Design Approach APP/7.17 shows Saxlingham Nethergate and The Green as NOT in Conservation Areas.

Other examples:

- 18 - The Green Medium Sensitivity Contains some residential dwellings, largely set back from the carriageway, with Saxlingham Hall nursing home located nearby on a side road. This statement underestimates the impact on houses on the green.

- 7A-F A28, A29, A30, A40, A42 From A140: south on Hempnall Roundabout onto Site 4A via A19, await call-forward to site, eastbound on Hempnall Roundabout and B1527, northbound on The Krons, westbound on Fairstead Lane, north onto A29/31. Internal haul route to Sites 7A-F – cross Broaden Lane via A40 for access to 7E-F. For southern portion of 7D, southbound on Broaden Lane and west onto A42. Depart on same route in reverse. The new Haul route although in other parts of the submission they are still using the road through the village and The Green. Clarity is required
- 11.6.25 Construction vehicle routes have been selected with the principal aim for avoiding routing vehicles through local villages wherever possible including the village of Saxlingham Nethergate. The selected routes have apparently been prepared following engagement with NCC. And yet the outline traffic management plan clearly shows heavy goods going through Saxlingham Nethergate and The Green
- Design approach APP/7.17 – does not show conservation area for Saxlingham Nethergate and Saxlingham Green
- Figure 3.17 – Shotesham/Woodton hornbeam woods label appears twice – one of which points to Saxlingham Grove
- Figure 4.9 shows substation in 7F and not mentioned anywhere in the document
- Figures 4.9 and 5.4 contradict each other for 7D land – which one is correct?

Cable Route Corridor

- CRC7 - links Site 5 with Site 7. CRC7 comprises a number of fields, woodland and a Statutory Main River, River Tas chalk stream;
- CRC8 - links CRC6, Site 6 and parts of Site 7 together, CRC8 comprises numerous fields and accommodates some highway infrastructure;
- CRC10, CRC11 and CRC12 - links various parts of Site 7 together and connects the Scheme to Site 8. CRC10, 11 and 12 comprises a number of fields. CRC 10 accommodates some highway infrastructure. fine sediment and pollution runoff entering Hempnall Beck during construction;
- potential effects on fish and white clawed crayfish
- the need to demonstrate that the cabling will be sufficiently deep enough so that electromagnetic fields are not detectable at levels that could affect aquatic life

Impacts on Public Rights of Way

Saxlingham Nethergate is well known for its extensive network of cared for footpaths; there is a permanent footpath by the war memorial.

The whole area is criss-crossed with numerous public footpaths and bridleways, including the historically important and much visited Boudica Way. During the construction phase many of these paths will be inaccessible due to obstruction by vehicles and equipment and for safety reasons. After completion, none of the paths will hold any attraction for walkers and horse riders as the views will be dominated by the solar panels, in some cases on both sides of the path.

Paths are used recreationally by locals for walking, running, dog walking and horse riding. The village has a walking group and a 'short walks, short notice' WhatsApp group for those who fancy a local walk and would like some company. They are an important part of community life.



The paths are also popular with visitors, individually or walking groups, attracted by the variety of walks including along Boudica way which runs along Saxlingham Green and right through the centre of Saxlingham Nethergate and importantly, several of the paths are also used as a practical and safe way of moving from one community to another on foot.

The Land parcels 7D (solar arrays) and 7F (solar arrays and a sub-station) are separated by a Broaden Lane but are otherwise bordered on the west (SN-FP13 & 14), south (SN-FP11,12 & 27) and east by 3 kms of public footpaths. The eastern border (SN-FP9) is **Botenha Way** named after a Saxon heiress Bote from the mid the 11th century.

This is an ancient and historic landscape.

All use of the paths surrounding 7D and 7F would be adversely affected in the short (and in some cases, long) term by views of large-scale industrial infrastructure, extensive fencing, construction noise and traffic. And the intention to close and restrict access of the majority of them will also have a significant adverse effect, far beyond mere inconvenience, on the ability to travel safely on foot from the Saxlinghams to Hempnall where there is a shop, post office, cafe and vehicle repair garages.

From Saxlingham Nethergate to Hempnall the current route follows PRowS SN-FP14, SN-FP12, Hp-BR30 to Fairstead Lane.

SN-FP14 forms part of the western border of 7D and is a lovely tree and hedgerow lined linear woodland walk which starts close to the ruined church of St Mary then passes through a drainage hollow known as Mud Hole once home to four cottages. Steep steps lead up and out to bright open field views (7D) to the east. A left turn at the junction with **SN-FP12**, which forms the southern border of 7D is followed by a right turn down **HpBR-30 (Pymar's Lane)**, another currently beautiful dappled linear woodland walk, due to form a border to land parcel 7C to the west, leading to Fairstead Lane Farm and Fairstead Lane in Hempnall.

During the construction phase, and the renewal and decommissioning stages, however, this walk would no longer be feasible. **SN-FP12**, **SN-FP13** (which links the top of Church Hill to SN-FP14)

and **SN-FP14** are all listed as 'Medium-term' closures, defined as 'a month, or longer, up to the commencement of the Scheme operation' which will have the effect of closing down this access route for the duration of the longest of the closures.

Recognising this, diversions have been suggested, but these merely direct the walker to the route from Saxlingham Green to Hempnall. Aside from failing to recognise the off-road distance between the centre of Saxlingham Nethergate and a mid-point along The Green, these paths, which form the routes by which residents of The Green currently reach facilities in Hempnall, have own restrictions;

One route from Saxlingham Green to Hempnall is SN-FP10 leads directly off national footpath Boudica Way, and cuts southwards down 7F where it meets to form a corner with the east-west southern border path **SN-FP27**, alongside which a 0.75 hectare, 7m high substation is planned. Both paths have largely open views across 7F around a peninsular of woodland to the north, where Saxlingham Green, a conservation area with many listed buildings forms the northern border. Continuing south is **Hp-FP3** which runs along the western edge of 7E for some distance, before arriving at Bussey's Loke in Hempnall, thus forming a safe way to get from Saxlingham Green to Hempnall on foot, Broaden Lane being national speed limit with no pavement.

The alternative route suggested starts at **SN-FP 9**, which also leads directly off Boudica Way and follows the eastern border of 7F with largely open field and peninsular woodland views into 7F. There is a short stretch of **SN-FP27** with further open views north towards Saxlingham Green before the route turns southwards again, onto **Hp-FP5**, which forms the eastern border of 7E, leading ultimately to Bussey's Loke.

Of these two routes, SN-FP27 is listed to be closed, Medium-term, as is **SN-FP11** that takes the footpath to an entrance on Broaden Lane. Given the siting of the sub-station a lengthy closure seems likely. **SN-FP10** and **SN-FP 9**, **Hp-FP3** and **Hp-FP5** will all be 'open' but managed, meaning there will be signage, moving vehicles, widened access tracks where applicable, banksmen or marshals and 5–10 mph speed limits while construction with all the noise and visual disturbance associated with it continues around them.

None of which adds up to an enjoyable walk in the countryside and would undoubtedly deter recreational walkers, in direct conflict with Norfolk County Council's public access and heritage objectives.

Proposed mitigation for the open views that form part of the paths around 7D is limited to the planting of 'native hedgerow and native hedgerow trees', and sometimes 'instant hedgerow and 'native broadleaf woodland' along exposed and open borders.

Planned mitigations for the visual effect of the Scheme on 7F (and 7E) from surrounding, and more southerly footpaths include different combinations of hedgerow and hedgerow trees, native shrub planted with individual trees, native broadleaf woodland planting.

These measures seem optimistic given the height and scale of the solar arrays (up to 4.5 metres) and substation (7 metres) here, and indeed it is accepted by the applicant, looking northwards to 7F, even at year 15 'it is [however] likely that the substation would remain visible to some degree' (Public Rights of Way Visual Amenity Assessment SN-FP27).

And whilst the proposed extensive planting of trees and hedgerows may in the very long term block the view of the industrial infrastructure, their presence will, at the same time, block off previous wide and open views.

In addition, and very importantly, little or no regard has been taken of the extreme impact of extensive use of 2.5m high deer fencing around fields containing solar arrays which, as well as further industrialising the landscape, would close in footpaths with fences either side creating a tunnel effect and making them unpleasant and potentially dangerous spaces for women, girls children and lone walkers. This could have a detrimental impact on mental health.

In conclusion, the construction phase of this scheme would cause untold disruption to the footpath network in this place, severely reducing the ability of both residents and visitors to move about on foot recreationally or between communities. And in the long term from almost all points around these fields the open views and the experience of using these peaceful and ancient footpaths, walked since the earliest days of human settlement in Saxlingham Nethergate and Saxlingham Green, would be permanently degraded by this proposed industrialisation.

The western border of 7D forms part of a well-used woodland path to Hempnall, the start point of which coincides with a vehicle access point on a blind bend. Two other access points, on Broaden Lane, also coincide with pathway start points.

Impacts on Pedestrians and Children

The high security fencing will restrict the width of the paths and eliminate any means of escape, making them less safe e.g. for children and passing dog walkers. During the construction phase the numerous HGVs and the Abnormal Indivisible Load (AIL) vehicles will make the minor (unclassified) roads very unsafe for pedestrians in Saxlingham Nethergate village, as well as children and parents outside the primary school, and on The Green e.g. for walkers following Boudica Way.

Impacts on Cyclists

During the construction phase, all access roads in the area would effectively become no-go areas for cyclists, both recreational and commuting, due to the narrow width of the unclassified roads and the size and frequency of the supply vehicles.

Local Bus Transport

The regular bus service no.84 from Harleston via Hempnall to Norwich, through Saxlingham Nethergate runs six times each way per day, would at best suffer delays throughout the construction phase, due to congestion as a result of the increased HGV traffic, and may need to be re-routed or cancelled.

For many, the bus is the only means of getting about. People of all ages rely on the bus to get to their place of work, to school or college in Norwich as there are no 6th form high schools locally, or to use the resources of Norwich for leisure and shopping. This is especially a problem for students at exam times.

Often school and college students will leave their home at 7am to get to their destination on time. The delay to services in the morning and evenings will elongate their day considerably.

Impact on local Businesses

Congestion will also cause vital delay to emergency response times.

Farm traffic will be impacted on the local road network as they try to manoeuvre the increase in HGVs and AILs. Roads to and from Saxlingham Nethergate are all main route for oil tankers making deliveries to most homes in the village, courier, delivery, food, local agriculture, small and local business including services.

These routes and many others will be far busier and delay to local transport will have a detrimental effect as people try to still do their job.

Impact on local Airfields

Sites 7D and 7F sit within the radius of many busy local airfields within a short distance, including Hardwick Airfield at 4 miles, Tibbenham Airstrip at 6.5 miles, Seething Airfield at 6.5 miles and Old Buckenham Aerodrome (which hosts a large annual air show with the Red Arrows in regular attendance) at 10 miles.

There is also a small private airfield on the western boundary of Long Stratton that acts often as a personal, farm-based airstrip used for light aircraft, with occasional helicopter activity.

The East Anglia Air Ambulance is regularly seen flying to and from Norfolk and Norwich University Hospital and uses the airspace over Long Stratton for manoeuvre training with glint and glare a major concern.

The air space above Site 7, and in fact in the skies above the rest of the East Pye Solar proposal, is used on an almost daily basis by the Royal Air Force and the American Air Force for training including jets and very low flying large aircraft. It is commonplace to have 'dog fights' above the local villages and the 'glint' and 'glare' caused by the reflection of the sun on the solar panels, could cause serious safety issues especially in the cumulative impact of the scheme.

Well documented research highlights the vulnerability of aviation to 'glint' and 'glare' as they can cause temporary visual impairment for pilots, with the risks being more acute during low-altitude flights segments such as approach and departure, when pilots must maintain precise visual awareness. This is clearly a major issue in this part of South Norfolk with the number of small airfields in close proximity.

It is strongly felt that a robust Glint and Glare Assessment is completed covering the following: -

- 1. Solar Position Modelling:** Annual and diurnal sun paths to determine potential reflection windows.
- 2. Receptor Mapping:** Identification of all sensitive aviation receptors.
- 3. Geometric Visibility Analysis:** Determining whether reflected rays intersect pilot sightlines.
- 4. Intensity Estimation:** Assessing whether reflections exceed daylight luminance levels likely to cause discomfort or disability glare.
- 5. Duration and Timing:** Identifying when and how long glint or glare would be experienced during operational periods.
- 6. Cumulative Impact:** Where applicable, assessing multiple solar PV developments in the same airspace.

12: Noise and Vibration

Long-term exposure to construction noise has significant, well-documented negative impacts on the mental health of nearby residents, acting as a chronic environmental stressor that extends beyond simple annoyance.

Persistent, high-intensity noise from machinery, drilling, and piling triggers the hypothalamic-pituitary-adrenal (HPA) axis, a 'fight or flight' response, leading to increased cortisol (stress hormone) levels. It also causes cognitive overload, fatigue, anxiety, irritability, and a 30% higher risk of depression.

The impact on overall wellbeing will be immeasurable, The Human Rights Act 1998 article 8 states the right to respect for family and private life and home, meaning the right to enjoy your home peacefully.

Key mental health impacts of long-term construction noise on residents include:

Chronic Stress and Anxiety:

- Constant noise keeps the body in a state of alertness, leading to elevated cortisol levels, heightened stress, and anxiety.
- keeps the body in a "fight or flight" mode (sympathetic nervous system activation), which leads to persistent mental fatigue, irritation,

Sleep Disturbances:

- Noise above 30–40 dB during sleeping times can disrupt sleep stages
- Even if you don't fully wake up, your body reacts
- Construction noise causes micro-awakenings that disrupt deep sleep, leading to insomnia, sleep deprivation, and subsequent fatigue.
- Noise disrupts sleep patterns, preventing necessary rest, which directly leads to increased irritability, reduced cognitive performance, and mood disorders.
- Construction times are from 7am - 6pm Monday to Friday and 8am - 1.30pm on Saturdays
- Many people work shifts, nights and from home.
- Young children and babies can be more sensitive to sound and disturbance
- These effects are typically linked to environments with continuous noise above 55–60 dB.

Irritability and Emotional Fatigue:

- Persistent auditory irritation lowers mental resilience, leading to reduced patience, moodiness, and a sense of being overwhelmed.

Impaired Cognitive Function:

- Especially relevant to children
- Residents and workers may experience reduced concentration, memory problems, and difficulty focusing, particularly when working or studying from home.
- Impaired decision-making capabilities can reduce productivity and increase occupational risks.
- Learned Helplessness:

- Long-term, uncontrollable noise can lead to a sense of hopelessness or powerlessness, as residents feel they cannot control their own environment.

Noise Sensitivity:

- Individuals with higher sensitivity are more vulnerable to experiencing significant anxiety, depression, and poor sleep quality due to environmental noise.

Tinnitus

- Ringing, buzzing, or humming in the ears
- Often linked to repeated exposure to loud environments including, machinery and power tools etc

Hyperacusis

- Increased sensitivity to everyday sounds
- Can develop after prolonged noise exposure

These happen even at levels below those that damage hearing. They're caused by the body's stress response.

Vulnerable Populations

While noise affects all residents, certain groups are at higher risk of adverse mental health outcomes:

Children:

- More sensitive to noise-related stress can lead to behavioural issues and learning disruptions like reduced attention, slower reading development,
- Lower memory performance

Elderly:

- More vulnerable to cognitive decline,
- Hypertension, and depression associated with noise.

Low-income Residents:

- Frequently located in areas with poor insulation and
- Lower capacity to move or soundproof, leading to higher exposure rates.

On-going Mental Health:

- Less tolerance and have greater negative outcomes
- Depression

Mechanisms and Long-Term Outcomes:

Chronic noise exposure acts as a "direct pathway" of harm to the brain, causing neuroinflammation and oxidative stress, which are linked to neuropsychiatric outcomes. The inability to recover from this daily noise leads to:

Reduced Quality of Life:

- The continuous nature of construction noise causes emotional fatigue, significantly reducing overall well-being.
- The stress and sleep deprivation can cause cardiovascular issues, such as hypertension and headaches, which in turn exacerbate mental stress.

Work from Home or Retired:

- Multiple homes surrounding the plots across the scheme are retired and enjoy the countryside to walk and hobbies
- Many are less able to escape their home and continuous construction noise, particularly those working from home. Even moderate noise can feel excessive if it's continuous or unexpected and irregular.

It is accepted that noise becomes excessive if the noise level is 55-60 dB within your home environment during the daytime and 40-45 dB within your home environment during the night.

There are a number of residential properties within less than 100 metres of Site 7D, who will undoubtedly suffer a noise nuisance and a potential risk to physical and mental health, as a direct result of the construction work.

Impact of Vibration on Timber-framed and Clay-lump buildings

Vibrations, whether from construction (piling, blasting), heavy traffic, or machinery, can have distinct impacts on timber-framed and clay lump (cob) buildings due to their specific structural characteristics. Generally, these materials are more flexible than masonry, which can allow them to absorb some energy but also makes them susceptible to damage at connections and joints.

Impact on Timber-Framed Buildings

- **Connection Failure:** The primary risk is at the joints. Persistent vibration can cause damage to connectors, steel brackets, and fasteners, particularly in mass-timber or glulam structures.
- **Serviceability and Comfort:** Timber buildings, particularly taller ones, are lightweight and flexible, making them susceptible to wind-induced vibrations that may affect occupant comfort.
- **Cracking in Finishes:** While the timber frame itself may be robust, rigid interior finishes like plasterboard or exterior cladding (brickwork, stucco) are prone to cracking due to movement.

Impact on Clay Lump (Cob) Buildings

- **Vulnerability to Moisture and Settlement:** Clay lump is a rigid but relatively weak material compared to masonry. Vibrations can cause differential settlement of the bearing soils, which in turn leads to cracking in the walls.

- **Brittleness and Cracking:** Clay lump buildings are often older, heritage structures. The rigidity of the clay makes it susceptible to cracks from vibrations, particularly at the corners of openings (doors and windows).
- **Weakened Structure:** Persistent vibrations can exacerbate existing defects, such as loosening the bond between the clay and any added strengthening materials or exacerbating issues in rubble-filled walls.

General Observations

- **Damage Patterns:** The first signs of vibration-related damage usually appear on interior, non-structural, or rigid finishes, such as plaster or tile.
- **Source of Vibration:** Construction activities like pile driving and heavy drilling are more dangerous than passing traffic.
- **Mitigation:** To minimize damage, it is crucial to monitor peak particle velocity (PPV) and frequency, particularly in areas with sensitive historic structures.

Impact of Vibration on other Vulnerable Structures

Listed buildings account for 2% of the building stock in England and of those listed buildings, only 2.5% are Grade I listed.....Very little information is published on the effects of vibration on listed buildings. However, the penalties for damaging a listed building are severe, constituting a criminal offense in some cases.

As Site 7 is surrounded across all sub sites by listed buildings, the risk from vibration and ground movement is high and cannot be mitigated against.

During Construction

The potential for artificial light, dust, odour, smoke, steam and insect infestation will have a detrimental impact on amenity and those suffering from respiratory conditions are likely to be severely negatively affected.

No detail has been provided regarding noise levels of either the inverters, the swivelling panels, nor the substation. No ground hum has been described or mitigated. No mitigation for relentless pile driving noise and vibration has been forthcoming.

There is a nursing home within 500 metres of the land parcel 7F and on the route for heavy goods. These are vulnerable patients who have elected to end their days in peace and quiet in a rural, conservation area.

No surveys of nearby Grade II and ancient dwellings have been carried out. No assessment of how clay lump and timber framed buildings will withstand the constant vibration of heavy goods passing. The Street in Saxlingham Nethergate is a minor unclassified road (is) lined with ancient dwellings that are very close to the road. These buildings have been standing for centuries and have not been subjected to the kind of loads proposed passing their homes.

Conclusion

The sound of construction, operation and decommission will change the nature of the area from countryside to building site and industrial park.

Rather than a sense of peace and mindfulness, which is often why people use or move to the countryside, it will create a sense of not belonging, confusion, frustration and anger.

13: Air Quality

East Pye Solar Project introduces localised air quality challenges during construction and, in some cases, could alter local microclimates through land surface changes.

Construction and Infrastructure Impacts -The construction of Site 7D and 7F scheme would require:

- Delivery of panels, frames, piles, transformers, cabling;
- Machinery including for excavation, cranes and telehandlers;
- Delivery of concrete for substations and compound;
- Multiple HGV journeys per day;
- Congestion to local roads due additional construction traffic;
- Congestion due to road closures and changes to road layouts

The installation phase of solar infrastructure (panels, mounting, inverters, cables) produces air quality issues and can't be mitigated against.

- **Dust Generation:** Earthworks, site clearing, and heavy machinery movement on unsealed roads create dust, particularly in dry and windy conditions;
- **Combustion Emissions:** Increased traffic from heavy-duty vehicles (HDVs) delivering materials, as well as on-site construction machinery, increases emissions of nitrogen oxides (NO) and carbon monoxide (CO).
- **Localised Impacts:** While these impacts are temporary, they must be managed to prevent localised air quality deterioration, especially near sensitive receptors.

On narrow lanes the emissions will linger, increasing exposure for residents, walkers and cyclists.

Duration and Intensity

Given the scale of the scheme and the reliance on the A140, construction would last 24 months across the scheme:

- No recovery period for vegetation;
- Repeated disturbance from overlapping phases;
- Persistent emissions and dust generations;
- Increased traffic disruption to local people so longer periods of commuting time with higher emissions and/or moving commuter routes to small lanes increasing emissions beyond the scheme.

Surface and Microclimate Changes

Large-scale solar farms can alter the surface characteristics of land, which affects local climate and, indirectly, air quality.

- **Albedo Modification:** Solar panels are generally darker than the land they replace (e.g., in arid regions), which reduces surface reflectivity (albedo) and can lead to a cooling effect during the day. Most significant during longer spells of dry weather in summer months when the soil dries, lightens and cracks;
- **Local Cooling/Heating:** While some studies show solar farms can create a "cooling effect" (reducing land surface temperature, particularly during the day), others have noted a potential "heat island" effect, where surface temperatures increase. This became noticeable during the extreme heat waves in Summer 2026 when the temperature at Bloys Grove Solar (in Swainsthorpe a short distance from the application site and west of A140) was measured against a local crop field and the nearby village street. The crop and village street hit 35 degrees whilst the solar field peaked at 49 degrees, 14 degrees higher;
- **Vegetation Loss:** Large-scale land clearing for solar farms can remove vegetation, potentially increase local dust generation if not managed properly. This will be significant where compounds or substations have been sited where panels aren't planned;
- Although EPS have stated they will aim to minimise the removal of hedgerows and trees, areas for access and cabling as well as widening roads will have significant impact on vegetation loss. Several kilometres of significant hedgerows will be removed for CRC.

These large-scale developments will see:

- Increase in diesel emissions;
- Repeated dust events from multiple construction sites;
- Prolonged periods of poor air quality with no recovery time;
- Increased exposure to poor air quality to recreational use of land; or
- Reduced recreational use of land;
- Reduction in tourism to the local area;
- Increase to poor air quality to wildlife and vegetation;
- Dust deposits on all buildings, including listed buildings

Residents:

- Increased exposure to diesel emissions and particulates;
- Reduced outdoor recreation use;
- Dust deposits on homes, gardens and vehicles;
- Dust deposits on businesses and conservation area;
- Reduced feeling of worth and sense of being;
- Reduced tranquillity to rural environment;
- Sense of change to rural environment to industrial environment

Heritage:

- Dust deposits on vulnerable structures and surfaces materials;
- Reduced sense of tranquillity surrounding Conservation Areas and the wider countryside.

Wildlife and Habitats

- Dust smothering hedgerows, flowers and fauna;
- Dust smothering protected ancient trees and woodland habitats;

- Dust entering the water courses and run off into river Tas making the white clawed crayfish breeding ground vulnerable;
- Toxins entering the food supply to wildlife;
- Dust on land used by ground nesting birds;
- Stress on air-quality sensitive species

Public Rights of Way/Bridle Paths

- Walkers, cyclists and horse riders exposed to dust clouds and emissions;
- Reduced enjoyment of rural routes

Tourism

- Reduction in local visitors to the area;
- Reduction in tourism to Norfolk overall as the cumulative impact spreads.

Key Air Quality Issues in Rural Construction

- Fugitive Dust: The primary pollutant is dust from soil-stripping, earthworks, and vehicles moving over temporary roads.
- Trackout: Mud and dust tracked from unpaved site exits onto public roads can cause air pollution far from the actual site.
- Plant & Machinery Emissions: Non-Road Mobile Machinery (NRMM) running on diesel produces significant NO₂ and fine particulate matter, which can be high in rural areas that are otherwise clean.
- Impact on Ecology: Dust can settle on surrounding vegetation, reducing photosynthesis and harming local ecosystems, a risk more prevalent in rural settings.
- Topographical Trapping: While open, some rural locations (e.g., valleys and woodland) can experience trapped pollutants.

14: Socioeconomics

Site 7 sits in the heart of South Norfolk and considered one of the more tranquil parts of the UK (CPRE) enjoying glorious walks along Boudicca Way, multiple public rights of way, quiet lanes that are enjoyed by cyclists, horse riders, dog walkers and hikers.

The Dark Skies Plan allows people to star gaze without light pollution and supports the nocturnal wildlife to thrive where other places they are in decline.

Impact on tourism

Norwich is a popular destination for long weekends and short trips to enjoy the visiting London shows at the Norwich Theatre as well as the two impressive cathedrals of St John's Catholic Cathedral and the Norwich Cathedral in Tombstone. Pop-up galleries, many independent shops like Jarrod's Department Store as well as the multiple restaurants serving locally sourced food. The University of East Anglia with the green space of Earlham Park is the home to the amazing Sainsbury's Centre art exhibition facility, the recently refurbished Castle and its museum and are also very popular tourist destinations.

Potential impacts on local tourism include:

- **Alteration of Rural Character:** The 4.5m high solar panels (tracker panels), multiple substations and BESS at Great Moulton will negatively affect the scenic, quiet, and rural nature of the area, which is a major draw for visitors and tourists;
- **Impact on Local Accommodation:** Residents, such as those running holiday lets fear that the industrial-like installations will make their businesses "completely unviable" because guests come for a quiet, rural experience;
- **Visual Impact and Amenity:** industrialisation of the countryside and the visual impact of the panels and industrial infrastructure will detrimentally impact tourism receptors;
- **Construction Disruption:** a minimum of 2 years construction noise, traffic, and road closures associated with the project could **permanently** discourage tourists and impact local tourism-based businesses;
- **Loss of Public Amenity:** The development will affect public rights of way, and inhibit the enjoyment of walking in the area, a popular activity in South Norfolk in particular the waymarked Boudicca Way;
- **Construction Traffic:** road safety will be negatively impacted, making cycling on previously quiet roads and lanes unattractive.

The scale of the project will significantly alter the area's attractiveness, affecting the local tourism industry, particularly around the 26 villages where the solar panels and battery storage are planned.

South Norfolk alone contributes more than **£212 million** annually to the local economy.

This figure reflects a significant visitor economy that supports nearly **4,000 jobs** and involves over **1,200 businesses** across the district and the tourist sector remains a critical pillar of South Norfolk's growth strategy.

Key points regarding the local tourism economy include:

- **Wider County Impact:** Tourism is one of Norfolk's largest sectors, worth approximately **£3 billion to £3.6 billion** per year to the county. Norfolk County Council
- **Strategic Growth:** South Norfolk Council recently identified the visitor economy as a priority for its 2024–2028 Strategic Plan, focusing on its eight market towns. Broadland and South Norfolk
- **Employment:** The sector accounts for nearly **20% of all jobs** across Norfolk, including South Norfolk's rural areas. Norfolk County Council

The ancient buildings and attractive rural landscape of Saxlingham Nethergate and surrounding areas such as Caister St Edmund Venta Icenorum, an Iceni settlement and the Boudicca way which runs along the green, make it a well-visited locality for tourists, with easy access to Norwich and the Broads. Several air B&Bs and Hill House (Grade II listed) holiday/event venue provide accommodation and hospitality. The area is well-used by walking and cycling groups because of the attractive and peaceful landscape which includes several historic monuments. The thriving village community holds summer fetes and there are regular activities in the village hall. The sports fields are in regular use for football and cricket matches. Hot-air balloons based in the area

regularly fly over the village. All these activities are going to be negatively impacted by this project. Tourists are not going to want to visit what will essentially be an industrialised landscape.

Many visitors holiday in this part of Norfolk because of the unspoilt, uncommercialised rural landscapes and quiet lanes. East Pye Solar scheme would discourage anyone who wished to visit for that purpose due to the vast and scattered pattern of solar fields industrialising the landscape for miles around.

Impact on agricultural contractors

Employment to local residents in agricultural service is one of the main areas of employment in rural environments, particularly in South Norfolk.

Due to the large area of agricultural land proposed for East Pye Solar, there will be a drop in demand for agricultural workers as local farmers and landowners will require less help. This, in turn, could lead to a lower sense of worth within the agricultural employment sector as well as less income, poorer communities and less local food providers leading to food traveling further to meet demand.

Local contractors may relocate to other jobs or move to another area for work as supply and demand changes. Food production relies on knowledge and experience often passed down through generations and from a very early age.

This makes jobs in the following areas vulnerable as agricultural workers do more than just 'work' the land, they are custodians of the land and countryside for generations to come:

East Pye Solar have stated that no full-time onsite jobs will be created after construction as most operations can be carried out remotely.

This scheme will reduce local employment within the extended agricultural sector and reduce a sense of worth in the agricultural industry as a whole.

East Pye have also stated that it is not anticipated that during the construction and decommissioning of the scheme that any local new jobs will be created as an existing workforce, temporarily relocated, will be used. This is clearly at odds with Chapter 6 of the National Planning Policy Framework.

Impact on home values

- Falls in the value of houses near to utility solar farms are one of several 'externalities' of solar farm construction rarely considered or, if so, routinely dismissed by solar developers;
- Although some developers and valuers claim there is no effect, or even a slight increase in the value of houses near to solar schemes, more careful studies reveal an adverse effect;
- The closer to a utility solar farm and the larger the installation, the greater is the adverse impact on house values. Houses in more rural areas are more likely to be affected than those in more urban areas as the market is generally slower, although it is difficult to quantify this effect.

Some local estate agents have predicted a substantial drop in house price to anyone within the immediate vicinity, during and immediately post development compared to pre-proposal. To some that is several hundred thousand sterling and has already made their home unsaleable and in negative equity. House prices are also less likely to recover post development, especially in the countryside where people want fields not industrial infrastructure. Who would choose to live in an area that has been industrialised or at risk of further industrialisation? These lands have been farmed for hundreds of years by their respective generations. This proposal would change the character of the rural environment to that of security fencing, CCTV cameras and black glass panels higher than a double decker bus.

The negative effect of East Pye Solar on surrounding homes, multiple villages and the surrounding countryside cannot be mitigated against.

Houses that are currently being valued have reduced by between 5-10%. Worse, the properties affected are not selling and languish on the market. They are a very unattractive proposition for purchasers as potential buyers know that if the project goes ahead the surrounding countryside will be totally spoiled. Where once properties in Saxlingham Nethergate were sought after and rarely on the market for long, evidence is emerging that properties close to the solar fields are struggling to attract buyers.

Impact on home insurance

A large-scale industrial development nearby to residential properties can significantly impact home insurance policies, leading to:

- increased premiums;
- tighter underwriting restrictions;
- in some cases, difficulty in renewing coverage.

Increased premiums are the primary impact due to:

- Increased presence of machinery;
- higher traffic;
- potential environmental hazards increasing risk;
- Elevated fire risk

Large scale developments can change the local topography affecting natural drainage and potentially flood risks. Reducing natural barriers can exacerbate windstorm risks.

Restriction of coverage to basic perils, rather than comprehensive cover, if perceived risks are too high.

Construction Risks:

Ongoing development can cause;

- noise;
- vibrations;
- dust;
- heavy traffic

Hazards can be temporary but also can also cause more permanent damage especially to vulnerable, older structures like the Grade I listed Churches, clay-lump and wood framed structures.

Changing the nature of the soil can increase or reduce moisture which, in turn, can affect buildings close to developments potentially causing subsidence.

Large-scale solar farms can have an indirect impact on house insurance, primarily through potential changes to property value.

15: Soils and Agriculture

The development of Groundmounted Solar Panels (GPVs) and associated infrastructure is likely to affect soils in a myriad of ways beyond just carbon, during both the construction and operational phases.

(A. Armstrong, S. Waldron, J. Whitaker, N.J. Ostle Wind farm and solar park effects on plant-soil carbon cycling: uncertain impacts of changes in ground-level microclimate)

However, effects are expected to be highly context-dependent and be influenced by several variables, including climate, ecosystem type, land management history, predominant soil type, construction, vegetation establishment and management, and overall operation and management practices. Evidence of such effects has been limited to date.

If evidence is limited, why is it acceptable to plaster huge swathes of BMV food growing agricultural land in industrial infrastructure that will cause soil damage for decades after the decommission turning this BMV to brownfield?

Impact of Solar infrastructure on Soil Quality

Solar infrastructure impacts soil quality through construction-related compaction and erosion, combined with operational changes in microclimate, reduced rainfall infiltration, and altered vegetation patterns. While shading can improve moisture retention, it often reduces plant productivity and soil organic carbon, potentially leading to long-term soil nutrient accumulation, altered microbiota, and reduced soil quality. ScienceDirect.com

Lancaster University studied the impact on the land solar infrastructure is built on and noted that the soil health was affected. The ground directly under the panels was more compacted, with implications for water infiltration and root growth. It contained lower levels of organic carbon and particulate organic matter (likely due to reduced plant productivity), essential for soil-related ecosystem services (e.g., soil carbon storage). The legacy of past agricultural activity was also evident, with relatively high concentrations of plant-available nitrogen and phosphorus in solar farm soils.

Plant growth and biomass were significantly lower beneath the solar panels than the gaps between them or open pastureland, a reduction attributed to decreased sunlight and changes in the microclimate under the panels.

Soils and Compaction

Sites 7D and 7F of the East Pye Solar proposal lies within a landscape dominated by **high-quality agricultural soils**.

These soils are:

- Structurally intact
- Highly productive
- Crop rotated for best soil management
- Rich in biological activity
- Supported by long-established germinate systems
- Free from industrial disturbance

This baseline is **highly sensitive** to physical disturbance, compaction and hydrological change.

Compaction by heavy machinery during construction negatively impacts root growth speed, length, and oxygen access to microbiota. These can all potentially affect soil carbon storage and thereby limit soils' ecological and climate-regulating functions.

Soil compaction is a major, often long-term, environmental impact of ground-mounted solar farm development, occurring primarily through the use of heavy construction machinery. It causes structural damage, reduces water infiltration, increases surface runoff, and negatively affects soil biodiversity and plant growth.

Impacts During Construction

- **Heavy Machinery Trafficking:** The movement of heavy vehicles during site preparation, trenching, and panel installation crushes soil particles and destroys soil structure, particularly when working in wet conditions.
- **Surface and Deep Compaction:** Compaction can occur near the surface or extend deep into the subsoil (up to 60cm or more), often requiring specialized equipment to fix.
- **Topsoil Degradation:** The compaction, along with potential stripping and storage of topsoil, reduces its fertility and productivity.

Soils and Contamination

The Planning Inspectorate specifically raised concerns during the scoping process that historic ground workings could present a risk of groundwater contamination and that the available ground investigation data covered only a small proportion of the proposed development area. The Inspectorate therefore considered that there was insufficient information at that stage to rule out significant effects. Although ground conditions have subsequently been included in the Environmental Statement, the reliance on future ground investigation and mitigation does not eliminate the underlying uncertainty.

There is concern about the potential for construction activity to cause:

- compaction and irreversible deterioration of agricultural soil structure;
- mixing of topsoil and subsoil;
- rutting and erosion from construction traffic;

- mobilisation of existing contaminants;
- fuel, oil, hydraulic-fluid and chemical spills;
- concrete and cement contamination;
- contaminated sediment entering field drains and Hempnall Beck;
- pollution reaching groundwater through permeable aquifer materials;
- deterioration of soil drainage and infiltration characteristics; and
- failure to restore the land to its previous agricultural quality following decommissioning.

The applicant should be required to provide substantially more site-specific evidence for Site 7 before consent is granted. This should include intrusive soil and groundwater investigation, testing for relevant contaminants, including hydrocarbons, metals, asbestos and PFAS where justified by the historic land-use assessment.

There should also be a binding requirement for a Site 7-specific Soil Management Plan covering topsoil stripping, storage, reinstatement, compaction prevention, traffic management, erosion control and verification of soil restoration. The objective should not merely be to remove the solar equipment at decommissioning, but to demonstrate that the soil structure, drainage and agricultural capability have been restored to at least their pre-development condition.

Given the presence of aquifer materials, the proximity of watercourses and the acknowledged uncertainties concerning ground conditions, the risks to soil and water have not been demonstrated to be sufficiently low to justify development at Sites 7D and 7F without further investigation and stronger enforceable safeguards.

Impact of Microcracking, Leaching, Glass

The cumulative impact of solar panel glass cracking and subsequent **leaching** is a growing environmental and operational concern, primarily driven by **moisture infiltration**, which can cause toxic materials to seep into the surrounding soil and groundwater over time. While modern solar panels are designed for durability, cracked glass—often caused by hail, wind-blown debris, or improper handling—breaks down internal seals, allowing rain to dissolve and carry away hazardous materials, including **lead**, **cadmium**, and **selenium**.

Toxic Materials: Depending on the panel type, this may include cadmium telluride (CdTe), which is considered a carcinogen, as well as lead solder (common in silicon panels) and selenium (in CIGS panels).

- **Groundwater Contamination:** Over a 20–30-year lifespan, or immediately following extreme weather damage, these pollutants can enter the surrounding environment and potentially reach groundwater.
- **Increased Waste Pollution:** Improper disposal or failure to manage broken panels can lead to increased contamination in landfills, particularly if they are not treated as hazardous e-waste.

Performance and Safety Impact (Cracking)

- **Significant Energy Loss:** Microcracks and broken glass reduce panel efficiency. Cracked areas can cause **hot spots** that further damage the panel, potentially leading to a 60% or more reduction in power output.

- **Safety Hazards:** Cracked panels pose an increased risk of electrical shock or fire, especially during wet conditions.
- **Shortened Lifespan:** While panels are designed for 25–30 years, accumulation of cracks can render a panel inoperable much earlier. YDOC

Long-Term Management Challenges

- **High Replacement Costs:** Unchecked cracked panels often require complete replacement, increasing the cost of ownership and reducing the return on investment.
- **Recycling Difficulties:** The accumulation of contaminants and the structural damage make recycling complex, with many damaged panels ending up in landfills rather than being properly processed. ScienceDirect.com

Lack of Land Management Detail

The scoping report predicted by East Pye Solar in January 2025 provides insufficient detail on how the land will be managed during construction, operation and decommissioning.

The omission totally undermines the credibility of East Pye Solar's claims regarding:

- Biodiversity
- Soil Protection
- hydrological stability
- Landscape mitigation
- Agricultural recovery post-decommissioning
- Control of contamination and chemical inputs
- Management of hedgerows, ditches and field margins

Without a robust, enforceable Land Management Plan the environment effects of the development cannot be properly assessed.

Soil Recovery Plan

The scoping report produced by East Pye Solar in January 2025 also fails to provide any detail on the soil recovery plan.

They have failed, to date, to detail how soils can be protected, hydrology can be restored, compaction can be reversed, contamination can be remedied and agricultural activity restored.

Long-Term and Reversibility

- **Persistence of Damage:** Soil compaction may take many years to recover and, in some cases, can be permanent.
- **Loss of Agricultural Value:** Compaction can lead to the loss of "Best and Most Versatile" (BMV) agricultural land, especially in wetter regions, by reducing its long-term versatility for future cultivation.

With a cable route and haul road planned, removing and storing topsoil and sub soil in bunds, soil compaction, and disruption to field drainage systems among other things requires a soil recovery plan to be in place to support the loss of yield and quality through significant disturbance.

16: Ground Conditions

Ground Conditions, Geotechnical Risk and Groundwater

The Applicant for Site 7 has not demonstrated, through sufficient site-specific evidence, that the proposed solar development and associated electrical infrastructure can be constructed safely and satisfactorily having regard to the ground conditions and groundwater environment.

The Environmental Statement and supporting Ground Conditions Assessment do not adequately establish the detailed ground conditions necessary to demonstrate that the proposed foundations, piling, cable trenches, access infrastructure and electrical substations can be constructed without unacceptable risks.

The Applicant should demonstrate that its proposed foundation and piling solutions are suitable for the actual granular deposits encountered within Site 7 and provide evidence of representative pile testing or equivalent verification.

Electrical infrastructure

The ground investigation requirements for lightweight PV structures should not be assumed to be sufficient for the substantially heavier electrical infrastructure.

The proposed substations and associated electrical equipment will impose concentrated loads and may require more substantial foundations than the PV arrays. Particular attention is required at the **132 kV Project Substation in 7F**.

The Applicant should provide a site-specific assessment demonstrating foundation design for the sub station on site 7F.

Groundwater and aquifer protection

Groundwater is a particularly important issue at Site 7. The underlying Crag Group sand and gravel is identified as a **Principal Aquifer**, while the superficial granular deposits can also provide groundwater pathways.

The construction of piles, deeper foundations and underground infrastructure therefore has the potential to interact with groundwater-bearing strata.

This concern is heightened at 7F because the proposed Project Substation is within a groundwater Source Protection Zone 3.

The Environment Agency has previously identified the need for appropriate foundation/piling risk assessment and has raised concerns regarding the groundwater conceptual model and the potential for piling to create preferential pathways.

The Applicant should therefore demonstrate, through a site-specific hydrogeological assessment, that the proposed foundation depths and construction methods will not create unacceptable pathways for contamination or otherwise adversely affect groundwater resources.

Excavation and dewatering

The presence of saturated granular deposits and alluvial material creates a credible risk of groundwater entering excavations.

This could affect:

- cable trenches;
- drainage infrastructure;
- substation foundations;
- temporary excavations; and
- other below-ground works.

Potential consequences include running sand, excavation instability, ground loss, increased dewatering requirements and changes to groundwater levels.

A general commitment to undertake dewatering where required does not demonstrate that these risks have been adequately quantified.

The Applicant should identify the areas where groundwater is likely to be encountered, provide representative groundwater monitoring data and specify the proposed excavation-support and dewatering methodology.

Such assessment should be undertaken for relevant substations, access routes, cable trenches, compounds and other significant earthworks.

Construction traffic and working platforms

The relatively light nature of the completed PV structures should not obscure the substantially greater temporary loads imposed during construction. Piling rigs, cranes, HGVs and other heavy construction equipment may operate on ground which is locally weak or saturated.

Wet-weather deterioration of clay soils could result in loss of bearing capacity, rutting and instability, potentially requiring additional stone, ground improvement or changes to the proposed construction footprint.

The Diamicton is described as a **pebbly chalky clay**, generally stiff when unweathered, but with the important qualification that softer glacial materials can occur within or beneath it. Bands of sand and gravel can also occur and may be **water-bearing**.

Site 7 cannot be characterised simply as “good stiff clay ground”. **There are localised but important weaker/variable ground conditions that need to be dealt with in the detailed design.**

Groundwater and aquifer risk

The particular concern is **piling or deep foundations penetrating through the superficial deposits towards the aquifer.**

The Environment Agency specifically raised concerns about piling creating contaminant migration pathways into deeper groundwater and recommended **Foundation Works Risk Assessments/Piling Risk Assessments**.

Consequently, the issue isn't necessarily that the solar panels themselves pose a major groundwater risk. It is that **thousands of piles, cable trenches and deeper foundations could collectively interact with groundwater and geological strata**.

That makes the **site-specific ground investigation at 7F particularly important**. What groundwater levels were encountered, and over what seasonal monitoring period?

1. What pile type and pile lengths are proposed?
2. Has **pile load testing** been undertaken in representative ground conditions?
3. What happens where piles transition from stiff Diamicton into sand/gravel or soft alluvium?
4. What is the proposed foundation solution for the **7F 132 kV substation**?
5. How will excavations through the running-sand areas be supported?
6. What construction methodology will prevent piling from creating groundwater contamination pathways?
7. How will differential settlement between different geological units be controlled?
8. What wet-weather construction restrictions will apply?

The **most material risks are differential foundation performance, pile installation/design variability, groundwater interaction and running sand during excavation**, with the risk becoming more significant for the heavy electrical infrastructure than for the PV panels themselves.

Executive conclusion

The applicant's **ES Chapter 16 is not a detailed geotechnical design report**. It expressly says its baseline is principally derived from the **Phase 1 Ground Conditions Assessment**, desk-based information and BGS archive exploratory holes. The Phase 1 assessment itself describes its work as a desk study, site walkover, Tier 1 contamination assessment and preliminary ground-stability assessment.

That matters because the development is not simply a collection of lightweight panels.

The applicant says the PV structures may be mini-piled to **up to 4 m**, screw-mounted, or use concrete/other non-penetrative foundations, with mini-piles assumed as the standard option for the assessment.

The concern with piling

If piles penetrate through superficial deposits towards deeper strata, they can potentially create a preferential pathway.

The Environment Agency's scoping response was quite explicit about this. It said the conceptual understanding of groundwater was inadequate and called for, among other things:

- a **Foundation Works Risk Assessment or Piling Risk Assessment**; and
- a hydrogeological risk assessment for HDD works.

That is a very important piece of evidence for an objection. It means this isn't merely an issue invented retrospectively by an objector.

The statutory environmental regulator itself identified uncertainty in the groundwater conceptual model and the need for further risk assessment.

7F contains a **132 kV Project Substation**. The Phase 1 assessment identifies this as one of the Project Substation locations. The applicant's groundwater information also confirms that the 7F substation is within SPZ3.

Ground investigation data is required for groundwater levels, foundation concept, allowable bearing pressures, calculated total and differential settlements and proposed foundation solution for the 132 kV Project Substation at 7F, including evidence that the solution is suitable for the identified Diamicton and any granular horizons.

17: Electromagnetic Fields

The Conservation Areas of Saxlingham Green and Saxlingham Nethergate are within a few hundred metres of Site 7D and 7F with rural homes and business. This area is one of the most tranquil areas of South Norfolk, CPRE map.

Sites 7F and 7D include inverters, transformers, the proposed 132kV Substation equipment, underground cabling and all the associated high voltage grid connection infrastructure.

Whilst EMFs are a normal by-product of electricity generation and transmission, the scale, proximity and concentration of equipment proposed creates legitimate concerns for residents, particularly where infrastructure is located close to homes, PRow, private water supplies and sensitive receptors including children and the elderly.

EMFs can cause annoyance and a nuisance because of the audible hum from transformers, disturbance to medical devices including pacemakers, and interference with electronic equipment. Where properties are close to this the impacts are more likely to be noticed; especially to children, elderly residents or residents with chronic health or mental health concerns.

An area that is so tranquil, is slightly elevated above the Tas Valley and with limited narrow country lanes is filled with sporadic agricultural noise and bird song. The cumulative effect of the Scheme in this area will be more noticeable as the baseline will be limited.

UKHSA and WHO guidance recognises that public health concerns about EMFs is itself a health and well-being issue, even where exposures fall below guidance levels.

East Pye Solar has yet to provide an assessment to demonstrate that EMF exposure will remain within accepted limits or that residents will not experience nuisance, anxiety, or health-related concerns.

As there are no mega-scale solar and associated infrastructure research in the rural countryside of the UK to date, it is impossible to state categorically that there will be no impact to residents living and working within close proximity of these sites. But there are plenty of anecdotal experiences where local residents to sizeable solar schemes are suffering a continuous hum and headaches since a scheme has been running including inverter noise at Cleve Hill in Kent and the permanent humming from the BESS at Swainsthorpe a few miles away from Site 7.

However, it's not just humans that can feel the effects of artificial EMF. Nature uses the earth's magnetic field for homing, to navigate and to forage however are also very sensitive to disruptions.

Bats

Effects on Bats and Activity

- **Reduced Activity:** Studies, particularly in the UK and France, found that total bat activity was roughly halved at the boundaries of solar sites and dropped by two-thirds in the center.
- **Species-Specific Impact:** Six of eight species/species groups surveyed, including Pipistrellus and Myotis species, showed a significant decrease in activity.
- **Behavioural Alterations:** Bats at solar farms tend to shift their flight towards faster and straighter trajectories. This indicates a reduction in foraging (hunting) behaviour, likely due to reduced feeding habitat quality (University of Bristol, British Ecological Society, BSG ecology, Science direct.com)

Conclusion

There is limited research on the effects of EMF on bats however many insects can detect electric or magnetic fields. If EMFs alter insect distribution or behaviour, bats could experience indirect effects through changes in prey availability, albeit largely hypothetical.

The area surrounding and including the East Pye Solar scheme is of crucial importance regarding all bats however in particular the Barbastelle bats of which the area is of significant importance as a population enhancement area.

Bees

Bees are very sensitive to electromagnetic fields (EMF). Disruptions stem from both natural solar/geomagnetic storms and anthropogenic (man-made) sources. These forces can impair honeybees' ability to navigate, forage efficiently, and develop properly, which ultimately disrupts their crucial pollination services and plant reproduction (PubMed, Science.org)

Electromagnetic fields from solar panels, substations and power lines disrupt honeybee navigation, foraging efficiency and learning abilities. Because bees rely on Earth's magnetic fields and natural floral electric cues, artificial EMFs cause physiological stress and disorientation (PubMed 2023).

For some time, farming practices and the use of pesticides have been to blame for the decline in pollinators. But with the significant increase in man-made interference through renewable energy infrastructure, robust research on pollinator decline points directly to pylons and substations and the high-voltage infrastructure (PubMed 2023, 2018) (New Scientist 2023) (ehScience 2026)

Albeit solar and inverters generate relatively weak, primarily direct current the management of the sites are the main risk to these environments and resolve around poor habitat management.

Key Impacts on Bees

- **Navigation and Orientation:** Bees have specialised magneto-receptor cells containing iron granules in the abdomen. High-voltage power lines and equipment can easily confuse these systems;
- **Foraging Disruption:** Research shows need are less likely to visit flowers near strong EMF sources. Exposure has been linked to impaired olfactory learning and poor memory retention, leading to lost foragers and struggling colonies (PubMed 2023, 2018);
- **Electrical Noise:** Strong electromagnetic fields create static/parasitic signals around cables that can deter bees from landing on otherwise nectar-rich flowers

White-Clawed Crayfish

The white-clawed crayfish (*Austropotamobius pallipes*), an endangered freshwater crustacean, is susceptible to various environmental stressors, and emerging research suggests that electromagnetic fields (EMF) can act as a potential, albeit not fully understood, stressor on aquatic invertebrates.

Research indicates that low-level, non-ionising EMFs—such as those from underwater power cables—can create environmental concerns and that existing safety standards, often designed for humans, may not sufficiently protect aquatic fauna.

Key findings regarding EMF effects on crayfish include:

- **Synaptic Transmission Enhancement:** Studies on crayfish (specifically the lateral giant interneuron) have shown that static magnetic fields (SMF) (e.g., 8.08 mT) increase the efficacy of synaptic transmission, particularly affecting the neural circuits responsible for "tail-flip" escape responses.
- **Ca²⁺ Dependent Potentiation:** The enhancement of neurotransmission by static magnetic fields is a calcium (Ca²⁺) dependent phenomenon.
- **Increased Activity/Stress:** While specific, long-term studies on *A. pallipes* are limited, broader studies on crustaceans suggest that high-intensity static fields can affect nerve functions and behaviour, potential causing increased stress or behavioural alterations.

Contextual Factors:

- **Conservation Status:** The white-clawed crayfish is already heavily threatened by invasive species (signal crayfish) and "crayfish plague," making them vulnerable to any additional anthropogenic stressors, including, potentially, electromagnetic radiation.
- **Habitat Impact:** The primary concern in the literature is that subsea or underground power cables (e.g., in renewable energy projects) generate EMFs that can affect benthic organisms such as crayfish. nsip-documents.planninginspectorate.gov.uk

Conclusion on Effects:

Current, though limited, research suggests that electromagnetic fields can affect the nervous system of crayfish, potentially altering behavioural responses. Further study is needed to

understand the long-term, low-level effects of these fields on the survival, behaviour, and reproduction of the white-clawed crayfish, especially as they are considered a "globally endangered" species.

18: Other Environmental Matters

Utilities

Saxlingham Nethergate has multiple utilities running along the boundary edges including at proposed access points, through the site, as well as overhead. These have not been assessed adequately by East Pye Solar.

For example, numerous water nodes line the verges throughout Saxlingham Nethergate and the pipes are very near the surface. The very narrow roads that have been proposed as part of the transport route will be used by extremely heavy goods vehicles. It will be impossible to steer clear of these, therefore damage is inevitable and can't be mitigated.

Water Environment

Water Framework Directive and water environment: the applicant has not proved no deterioration

Impacts on private water supplies, private sewerage and hydrological connectivity have not been properly assessed.

Any watercourse crossing, ditch crossing, HDD, haul route, trenching, runoff change, compaction, sediment release or pollution pathway must be assessed against the requirement to prevent deterioration in waterbody status. The applicant has not shown that the construction and operation of Site 7 would avoid deterioration of the River Tas system or avoid impacts on priority chalk-stream ecology.

Where a scheme risks deterioration of a chalk stream and harm to protected aquatic species, the legal test is precautionary and evidence led. On the present material, the applicant has not supplied the required evidence to pass that test.

The East Pye Solar Project poses a significant and unacceptable risk to water pipes and general water infrastructure through:

- Ground pressure and pipe damage;
- Trenching and accidental strikes;
- Soil contamination and hydrological change;
- Pollution and sediment infiltration;
- Long term operational disturbance;
- Flooding;
- Pollution to private water supplies;

The Environment Agency noted during scoping that:

- **Some small ordinary watercourses do not have mapped Flood Zones, so relying solely on Flood Zone maps could underestimate local flood risk;**

- **The Flood Risk Assessment should therefore consider these unmapped watercourses and use the latest surface water flood data.**

Sewage

A notable issue at Site 7 is the presence of **Anglian Water Infrastructure**.

The Environmental Statement record that:

- **Anglian Water flagged multiple concerns within their Relevant Response including lack of contact and consultation.**

This means that construction activities such as piling, trenching or cabling installation will require:

- Accurate utility location;
- protective easements around sewer assets;
- agreed working methods with Anglian Water.

The lack of communication from East Pye Solar with Anglian Water and the Environment Agency leaves many issues unresolved and cannot be mitigated against. This is a major **FLAW**.

High pressure gas main

Sub-Site 7F is constrained by a **high-pressure gas main** running beneath it, creating unacceptable construction, safety and operational risk. The high-pressure gas main passes close to the proposed substation, creating a fire and explosion safety concern. This is not peripheral utility issues. A high-pressure gas main close to electrical infrastructure, construction compounds, cabling, fencing and access works is a major constraint.

The site is also subject to a haulage route which is planned be constructed and to run over the high-pressure gas main even though there are easement restrictions within the proximity of the pipeline.

The proximity of:

- deep excavations,
- piling,
- heavy plant,
- permanent concrete foundations,

creates unacceptable **safety, engineering and liability risks**. The coexistence of a 132kV substation, solar infrastructure and high-pressure gas infrastructure in this constrained location represents a **fundamental deliverability failure**.

The following comments are made by United Kingdom Onshore Pipeline Operators Association (UKOPA) in relation to solar farms near buried Pipelines

1. It is essential to recognise the potential risks with co-locating PV installations and buried high pressure gas pipelines.

2. Solar farms act as a source of short- and long-term direct current (DC) leakage and should be located as far as possible from buried pipelines.
3. Any developments within 500m of a pipeline should be reviewed to ensure elements such as pipeline access roads, cathodic protection (CP) system groundbeds and AC mitigation measures have been considered. If a CP system groundbed is located within or in close proximity to a PV farm then the groundbed location may need to be relocated which could take time and involve considerable expense to the developer, as a new power source may need to be installed, a new groundbed site selected and land purchased.
4. Increase in the AC interference risk to the pipeline may result in AC corrosion on the pipeline.
5. Increase in the lightning risk on buried pipelines from the construction of the PV farm.



High Pressure gas mains pipe at proposed site 7F entrance on Saxlinham Green (grid ref TM2473 9646)

From the Relevant Representation on behalf of National Gas Transmission PLC “*unfortunately the Applicant has not attempted to liaise with NGT on the protected provisions required and as such no progress has been made despite NGT’s attempts to enter into discussions dating back to August 2025. NGT is disappointed that appropriate priority does not appear to have been given to the protection of its assets in connection with the Project.*

Until NGT is satisfied that adequate protections have been secured.... NGT must object to the Order.”

Glass Fibre Broadband

Rural fibre-optic broadband infrastructure is situated within Land Parcel 7; the applicant has not mapped it, consulted operators or users, or assessed diversion, protection or outage risk.

Rural broadband is essential infrastructure for homes, farms and businesses. Damage or diversion could cause significant community and business harm and may materially affect construction feasibility.

Anecdotally, during the construction of the Long Stratton by-pass, the main fibre connection was cut in accident and knocked out services to multiple homes for over two weeks whilst it was repaired.

Additionally, in another section, fibre connection was lost to rural properties east of the by-pass for over four weeks whilst it was identified and repaired.

With mobile phone signal limited in rural areas, and with many blackout zones, WI-FI calling is essential for homes to maintain connection.

Potential Effects on Fibre Infrastructure

While East Pye Solar will not interfere with the signal it presents physical risks to these specific areas:

- Cable Route Corridor (CRC) Crossings: There are seven CRC linking to or through Site 7. There is risk of accidental cable strike on existing buried fibre due to lack of mapping;
- Construction Traffic and Roadworks: Heavy vehicle access to Site 7 will require road widening or temporary access points. Excavation at these points can damage micro ducts - the thin plastic tubes housing fibre cables - which are often buried at shallower depths than older copper lines;
- Wayleave and Access Issues: large-scale infrastructure on Site 7 could potentially complicate future maintenance access for broadband providers if their existing lines pass through land now designated for a 60 year Solar Scheme Broadland and South Norfolk

Satellite Connection

With limited Broadband connectivity, rural communities rely on satellite services like Starlink. Many mobile phone providers are now abandoning new masts due to long planning constraints and offering back up services via Satellite.

The Scheme includes extensive power conversion equipment, BESS installations and multiple high-voltage substations. The Environmental Statement should clarify whether electromagnetic emissions have been assessed for compatibility with modern satellite Broadband services operating in Ku- nad Ka-band frequencies, including user terminals located within the nearby rural properties, together with any proposed monitoring and complaint resolution procedures should interference be reported during operation.

Mobile Phone Signal

Large scale solar can affect mobile phone signal. As rural phone signals are limited compared to towns and cities, any detrimental effect can be significant.

Solar Panel can:

- Reflect or scatter radio signals (including 4g and 5g);
- Create 'shadowing' effects behind large arrays;
- Slightly weaken signal strength at ground level within or immediately behind a site.

As the panels are 4.5m high and tracking, the cumulative impact of the scheme across the whole area, often near to homes and PRow, signals could be weakened and the effect significant in places where signal is an issue already.

Inverters and electrical equipment:

Solar fields include inverters and transformers which can emit electromagnetic interference if poorly shielded.

Although the risk is low impact it relies in developers to be compliant with regulations and evidence is based in small solar arrays not mega developments. This has not been assessed.

Blocking Line-of-Sight

Mobile phone signals rely partly on line-of-sight to masts, especially for 4g/5g.

A solar development could affect this if it:

- Sites between a user and a nearby mast;
- Includes ancillary structures (substations on 7F, security fencing, CCTV poles).

East Pye Solar has multiple substations including a 132kV on sub-site 7F

In addition to this, the arrays are tracking panels that move, will be surrounded by fencing and CCTV. Rural signals can already be intermittent and weak without additional interference. A recent outage to multiple masts serving multiple providers in a 10km radius and lasted 9 weeks after changes were made to service.

Major Accidents and Disasters

The main **Major Accident and Disaster (MAD)** concerns identified in the planning application are not the solar panels themselves, but nearby hazardous infrastructure and construction risks.

The Environmental Statement and consultation documents identify the following:

1. Major Accident Hazard Pipeline (MAHP)

- Site 7F lies within the consultation zone of a **National Gas high-pressure transmission pipeline**;
- The principal concern is accidental damage during construction, particularly excavation for cables, access roads and foundations;
- A pipeline rupture could result in fire, explosion and significant risk to workers and nearby receptors. Because of this, National Gas must be consulted, and protective easements and safe working methods are required.

2. Major Accident Hazard Site (COMAH establishment)

- The Health and Safety Executive advised that the application falls within the consultation zone of:

- **Gas Power Services Ltd., Harveys Lane, Seething (HSE Site Reference H3561).**
 - This means HSE considers Site 7 sufficiently close to a regulated hazardous installation that land-use planning controls apply;
 - The developer states that consultation with HSE has been undertaken and buffers incorporated into the design.
 - **Electrical infrastructure**
a **132 kV project substation** (Sub-site 7F)
 - Seven different underground cable routes connecting different Sub-Sites on 7 to each other as well as to other Sites of the Scheme;
3. **Construction traffic**
During construction there is potential for:
- HGV collisions;
 - conflicts with local roads;
 - abnormal load deliveries;
 - interaction with agricultural traffic.
- These are managed through Construction Traffic Management Plans rather than being regarded as significant major accident risks.
4. **Fire risk**
Fire scenarios considered include:
- transformer fires;
 - electrical equipment fires;
 - vegetation fires around solar arrays;
- The Environmental Statement concludes these can be controlled through design, maintenance and emergency planning.

The main issues that should be given the greatest scrutiny are:

- **Proximity to the high-pressure National Gas transmission pipeline** (arguably the most significant external hazard).
- **Location within the consultation zone of the Gas Power Services COMAH site at Seething.**
- **High-voltage substations proposed within Site 7.**
- **Construction-phase excavation near buried utilities and associated HGV movements.**

19: Cumulative Impact

Cumulative Impact on Glint and Glare

Glint and Glare refers to the reflection of light bouncing off the solar arrays as the sun hits them at a specific angle. Sites near roads and homes will have greater impact.

With the cumulative effect of the arrays, which will be visible across the area from most places, this could be significant in particular when the topography of the landscape is relatively flat with slight undulation like it is in this part of South Norfolk.

Well documented research highlights the vulnerability of aviation to 'glint' and 'glare' as they can cause temporary visual impairment for pilots, with the risks being more acute during low-altitude

flights segments such as approach and departure, when pilots must maintain precise visual awareness. This is clearly a major issue in this part of South Norfolk with the number of small airfields in close proximity.

It is strongly felt that a robust Glint and Glare Assessment is completed covering the following: -

- 1. Solar Position Modelling:** Annual and diurnal sun paths to determine potential reflection windows.
- 2. Receptor Mapping:** Identification of all sensitive aviation receptors.
- 3. Geometric Visibility Analysis:** Determining whether reflected rays intersect pilot sightlines.
- 4. Intensity Estimation:** Assessing whether reflections exceed daylight luminance levels likely to cause discomfort or disability glare.
- 5. Duration and Timing:** Identifying when and how long glint or glare would be experienced during operational periods.
- 6. Cumulative Impact:** Where applicable, assessing multiple solar PV developments in the same airspace.

Cumulative Impact on Homes

Glint and glare from upstairs windows:

- Dwelling Receptors – Extended periods of glare towards living spaces within a home may cause a nuisance for residents and could negatively impact residential amenity. Terrain heights are important to consider, as dwellings are typically assessed within 1km of a solar development (PagerPower).

At least a dozen houses in Saxlingham Nethergate are less than 200 metres from the proposed solar fields, all of them will have a clear view, and East Pye Solar has not given any consideration of Glint and Glare to properties from an upstairs window and therefore impossible to ignore the glint and glare.

Cumulative impact on ecology

The current ecology surveys provided by East Pye Solar are not complete enough to allow full examination and further surveys are essential.

The information surrounding haul roads, compounds and road widening of narrow lanes is misleading in particular towards the impact on mature hedges and trees. Many haul routes and access points will damage designated Roadside Nature Reserves (RNR) have locally significant wildlife which are under threat including sites with the nationally scarce sulphur clover. These verges represent possibly the last, best fragments of lowland meadow in the Claylands. Lowland meadow is an irreplaceable habitat which has suffered a catastrophic loss in the Claylands since World War II (Countryside Commission figures, 1984 puts the loss at almost 98%).

- The cumulative impact of the scheme represents a significant change to this landscape and its habitats, none of which can be mitigated for
- Developments of compounds and construction sites, trenching works and increased heavy vehicle movements are of particular concern across a wide swathe of Claylands

- Lighting of compounds and for night working conflicts with this Dark Skies area
- This project is out of scale with this landscape and represents industrialisation of this very rural area. It is out of character and alien
- The South Norfolk Claylands has been the focus of nature conservation efforts specifically on the high occurrence of good quality habitat (ancient woodlands, open commons, mature hedges and trees) within the landscape.
- This scheme carries unacceptable and long-term impact on ecology and on the rural landscape valued for its tranquillity.
- As the scheme is not needed under Government Clean Energy Action Plan, the impacts outweigh the benefits
- Removal of significant hedgerows and trees for access points and haul roads is unacceptable and damaging to the natural ecology of the area
- **Ancient woodland and SSSI risk:** Saxlingham Grove is recorded as adjacent to sub-site 7F. This proximity is significant because the harm is not limited to direct land-take. Solar development at this scale can affect ancient woodland and SSSI function through hydrological change, dust, lighting, noise, vibration, construction disturbance, changes in predator pressure, fragmentation of commuting routes, and alteration of the surrounding supporting habitat. The applicant has not demonstrated that these effects can be excluded, particularly where the same land is also part of a wider barbastelle bat landscape.
- The SSSI and ancient woodland context reinforces the legal seriousness of the Site 7 objection. These are not ordinary receptors. They carry strong national policy and statutory protection. Where development directly abuts such assets, the burden is on the applicant to prove that harm will be avoided, not merely that it may be managed later through outline plans.
- The impacts require assessment as not just immediate loss of habitat in that place, but on how they are used as connectivity for species across the landscape. This latter point is a legal requirement within the Core Sustenance Zones for Barbastelle bats and also needs to consider the Favourable Condition Status for both bats and hedgehogs
- A Natural England licence will be required for work in the vicinity of the barbastelle roosts identified by the Barbastelle Study Group

East Pye Solar has confirmed that the whole area of the Scheme is of national importance for bats. Land Parcel 7 lies within overlapping Core Sustenance Zones for barbastelle bats, a European Protected Species, and directly adjoins ancient woodland confirmed to support maternity colonies. It identifies Saxlingham Nethergate 7D and 7F as land essential for foraging, commuting and maintaining functional connectivity between maternity sites.

The applicant must demonstrate a licensable development pathway. That requires satisfaction of the strict derogation tests, including no satisfactory alternative and maintenance of favourable conservation status. Where a development would damage or sever functional habitat within overlapping maternity-colony sustenance zones, the licensing bar is high. On the evidence available, the applicant has not demonstrated that a Natural England EPS licence could lawfully be granted.

Absence of botanical survey: the ecological baseline is legally inadequate

A level 6 botanist familiar with the local botanical record wrote an open letter, copied to East Pye Solar pre-application, stating that rare and priority plant assemblages associated with long-established grassland, roadside verges, access routes and cable corridors were in the location of this Scheme. He called for two season surveys to be undertaken to understand the botanical baseline before the application progressed further. This work has not been carried out.

River Tas chalk stream and white-clawed crayfish: no lawful construction methodology has been demonstrated

White-clawed crayfish are a highly protected and declining native species. The Environment Agency's scoping comments record that EA records show the presence of white-clawed crayfish in the River Tas. The EA recommended a commitment to survey for crayfish at relevant locations when works affecting watercourses are known. The same comments identify the River Tas as a chalk stream priority habitat and a focus of EA activity.

This is a major legal and practical constraint. The construction would require cabling, trenching, haulage, possible Horizontal Directional Drilling, works near ditches and watercourses, and potentially works within a fissured chalk geology. There are clear risk pathways: cabling and trenching, potential HDD beneath or near fissured chalk, haulage and compaction, and sediment and pollution risk to the hyporheic zone.

Chalk streams are exceptionally sensitive to sedimentation, pollution, hydrological disturbance and changes to groundwater/surface-water interaction. White-clawed crayfish are particularly vulnerable to sediment, pollution, habitat disturbance and invasive species transfer. Without full crayfish surveys, a hydrological and hydrogeological assessment, a Water Framework Directive assessment, and a proven construction method, the applicant cannot demonstrate that Site 7 can be built without unlawful harm.

Water Framework Directive and water environment: the applicant has not proved no deterioration

The sites sit in a highly sensitive chalk-stream and chalk-aquifer catchment, with a high degree of hydrological connectivity to the Tas chalk stream. Impacts on private water supplies, private sewerage and hydrological connectivity have not been properly assessed. Where a scheme risks deterioration of a chalk stream and harm to protected aquatic species, the legal test is precautionary and evidence led. On the present material, the applicant has not supplied the required evidence to pass that test.

Cumulative impact on heritage

Heritage, conservation areas and historic rural landscape: harm cannot be screened away by distance

Site 7D and 7F lie within a historic rural landscape of high sensitivity with multiple Grade II* and Grade II listed buildings and conservation areas are affected.

- More than 30 Grade II* and Grade II listed properties in Saxlingham Nethergate and The Green will be affected through the impact on the setting of these heritage assets and causing industrial-scale visual changes.
- East Pye documents consider the impact to be generally low and 'not significant' yet also state many heritage assets would experience '*some degree*' of change to their setting. That is not insignificant.
- Combined effects on the setting of listed timber-framed clay lump buildings;
- Industrialisation of historic rural landscapes surrounding villages;
- The possibility that new planting would take decades to mature and screen infrastructure;
- Out of character screening alone would change the character of openness and this ancient rural environment;
- Cumulative interaction with multiple large energy projects proposed across South Norfolk;
- Loss of agricultural heritage with the conversion of farmland which risks destroying the tangible, historic and functional link between the communities and their agricultural past

Saxlingham Nethergate is not simply a receptor near the scheme but is part of the historic experience of the landscape affected by sub-sites 7D and 7F, construction routes, AIL routes, lighting, fencing, traffic, and the industrialisation of open rural approaches.

The settings of listed buildings and conservation areas must be properly assessed, and great weight must be given to their conservation. In a landscape where listed buildings, ancient lanes, historic greens, church approaches, Boudica Way, and rural settlement form a coherent historic environment, the harm is cumulative and experiential.

Cumulative impact on Transport and Traffic

Introducing of such a large-scale industrial project in this specific rural location raised significant concerns regarding:

- Cumulative traffic impacts;
- The capacity of narrow country lanes to manage heavy construction vehicles as well as additional construction worker traffic;
- Wear and tear to narrow lanes and roads not designed or structured for such HGVs and AILs;
- Road widening to accommodate oversized vehicles on roads not intended for them will change the character of the area;
- Manoeuvring large AI through a Conservation Village like Saxlingham Nethergate will put vulnerable properties and structures at risk of damage or destruction. Listed properties, vulnerable homes of timber frames and clay-lump constructions, homes with minimal or no foundations, walls and property boundaries, structures like the war memorial are highlighted on Section 56 if considered 'in the way';
- Road closures causing delay as well as cutting off communities from going about their daily life;

Cumulative impact of Noise and Vibrations

The proposed development of these sites indicates the following anticipated cumulative effects on noise and vibration which hasn't been properly addressed by East Pye Solar.

- **Construction Phase Impacts:** Significant noise and vibration are expected, primarily from pile driving for solar arrays, construction noise as well as the movement of heavy machinery and HGV movement.
- **No consideration is given to residential amenity and the rural background noise levels** including to multiple listed buildings within close proximity to sites across the scheme that are of sensitive construction like timber-framed clay lump houses and Grade I listed churches.
- The construction phase is expected to last at least 24 months, with potential for cumulative noise if multiple parcels are constructed simultaneously or in close proximity.
- **Lower background noise:** Noise seems noticeably louder in rural areas even if the sound level meter would measure the same number of decibels. This is due to lower background (ambient) noise. Less constant sounds that create a 'noise floor' making any sound more significant and appear nearer and/or louder.
- **Less sound masking:** A person's hearing is very sensitive to change in sound. A noise that rises 20dB above the background noise is more attention-grabbing than one that rises only 5dB above it even if the actual sound hasn't changed. Where the baseline starts lower, the noise will appear louder.
- **Sound travels further:** Rural areas offer fewer buildings and obstacles to block or scatter sound allowing sound to propagate over greater distances. Some weather conditions like cool, still nights allow sound to travel even further and seem unusually clear. With South Norfolk being predominately flat or only slightly undulating, sound travels greater distance.
- **Operational Noise:** While solar panels are considered silent, the operation of inverters, transformers, the motors to move the solar panels and Battery Energy Storage Systems (BESS) within the site will generate low-level, consistent noise. The cumulative impact would be the combined noise of this equipment at the closest receptors.
- **Transport and Access:** Cumulative noise effects are expected due to increased construction traffic on the local road network.
- **Maintenance Noise:** weekly maintenance vehicles and the tankers used for washing the panels will sound intrusive within the rural environment.
- **Replacement Noise:** replacement of panels and BESS will be the same as construction noise and will be considerable within the rural environment and lasting up to 2 years.
- **Decommissioning Noise:** this will be similar to construction and will impact for at least 2 years.

Residential amenity, schools, care home and rural lanes

- The noise and vibration baseline also identifies sensitive receptors around locations surrounding Site 7D and 7F, together with numerous public rights of way used by walkers, riders, cyclists and local residents.
- These are not remote or isolated receptors. They are homes, village streets, rural lanes, a primary school, a care home on The Green at Saxlingham Nethergate, historic buildings and community routes lying close to proposed construction areas, construction

compounds, access routes, cable works and AIL routes. The applicant has not demonstrated that construction traffic, HGV movements, AIL deliveries, road widening, vegetation removal, temporary traffic management, noise, vibration, dust and disturbance can be accommodated without unacceptable harm to residents and road users.

- Saxlingham Nethergate is particularly sensitive. It has narrow unclassified roads, existing congestion, known flooding constraints, restricted HGV access and historic buildings close to the proposed AIL route. The movement of abnormal loads through or near this village would create obvious risks to highway safety, pedestrian safety, school access, care-home amenity, residential tranquillity and the structural integrity of vulnerable historic buildings. These impacts are not adequately addressed by reliance on a future Construction Traffic Management Plan or later route agreements.

Cumulative impact on air quality

Construction Dust and Emissions: The construction of multiple sites across the region creates potential for cumulative air quality. This includes dust soiling and increased PM10 concentrations, particularly for sensitive receptors within 350m of a site or 50m of transport routes. This will affect multiple listed buildings including Grade I Listed places of worship and many buildings of sensitive construction.

Cumulative socio-economic impact

The cumulative socioeconomic effects of the proposed East Pye Solar scheme will be significant on a local level even though East Pye Solar considers the impact to be of national benefit.

- **Loss of BMV agricultural land** from conventional production forever as the land will degrade;
- **No decommissioning bond to restore** the land to pre-scheme quality;
- **Land is due to be compulsory acquired** so the land will not be owned by pre-scheme landowners. It is unclear what East Pye Solar, or whoever owns the scheme at decommissioning, will do with the land once the scheme ends;
- **Loss of agricultural jobs** due to mass loss of land permanently in one area directly, due to less land to farm, as well as indirectly through reduced supply chain demand;
- **Agricultural jobs will be less desirable** due to loss of value put on the farming sector and growing quality, local food;
- **No permanent on-site jobs will be created** once the Scheme is in operation (East Pye Solar);
- **Jobs for construction will be recruited externally** and shipped in and out;
- **Permanent visual change to the rural landscape** over a substantial area altering the character of this ancient landscape through industrialisation forever;
- **Tourism** is Norfolk's largest economic sector bringing in £5.9 billion and employing 54,000 people. In addition, the hospitality industry and the added attractions in and around Norwich, which has just been voted Sunday Times Best Place to live in the UK 2026, the project will have a major detrimental and financial loss on local and county-wide tourism;
- **Small, independent tourist attractions** or those businesses that rely heavily on visitors to boost local numbers during the holiday season will see a loss including holiday lets;

- **Pressure on rural roads** and the local network that local residents rely on to go about their daily life;
- **Closing PRow** long term during the construction of the scheme will prevent people using them for leisure and as a practical route to reach the facilities of Hempnall;
- **Changing the nature of PRow** when reopened will ruin a quiet country walk to one of enclosure and industrialisation. Screening will take decades to hide fencing and panels but will also change the character of an area from openness to one of enclosure;
- **Marketability Issues:** A study by the University of Birmingham suggests a typical **5.4% reduction** in relative prices for properties within 750m of large solar scheme.
- **Increase in house insurance** due to perceived flood and safety risks. Already happening;
- **Lack of Compensation:** Currently, there is **no statutory compensation** for residents who suffer a loss in property value or business income due to the proximity of an NSIP project, unless their land is physically acquired;
- **Infrastructure & Maintenance:** Concerns have been raised by Norfolk CPRE that the "industrialisation" of the countryside will require long-term public spending on road repairs due to heavy construction traffic without guaranteed local tax benefits
- Impact cost to local fire service that are all 'on call' would mean additional personnel costs and specialised equipment would be required to be prepared for BESS fires and infrastructure disasters. This cost would impact local residents' council tax.

Cumulative impact on soils and agriculture

The land will be removed from production for 60 years of the scheme as well as construction and decommissioning.

Potential cumulative effects include:

- **Reduced local production** of cereals, oilseed rape, sugar beet and other crops will impact supply changing;
- **Reduced flexibility** for local farming businesses;
- **Fragmentation of farm holding** making field operations less efficient especially during construction on the cable route corridor which will have fields dissected diagonally or down the middle;
- **Compulsory purchased land** will be removed from agriculture permanently;
- **Cabling Route** land will be removed from production for 2 years and will require several years to recover reducing productivity;
- **Potential impacts on local agricultural supply chains** if multiple projects affect the same area;
- **Soil Compaction and Structural Damage:** Construction, operation (maintenance traffic), and decommissioning phases will result in deep soil compaction, which can take many years to recover from;
- **Soil Erosion and Runoff:** The panels can create runoff that leads to soil loss through erosion;
- **Ecological and Agricultural Management** for Sites will be for convenience and ease of management rather than to encourage biodiversity gain;

Cumulative impact on ground conditions

The cumulative impact on ground conditions from industrialised solar schemes when assessing across the lifetime of the 60-year scheme - from construction, through operation, replacement, to decommissioning.

Soil Compaction:

- Compaction from heavy construction vehicles and cranes;
- Reduced soil porosity;
- Restricted root growth;
- Reduced infiltration of rainfall;
- Increased surface runoff and localised waterlogging
- If construction coincides with wet conditions compaction can extend well below the topsoil and may take years to recover.

Soil Structure and fertility:

Repeated disturbance from:

- Cable trenching;
- pile driving;
- access track compaction;
- substation foundations;

With the large quantities of BMV land affected, cumulative disturbance across multiple projects could reduce the availability of high-quality agricultural soils for decades.

Erosion:

Construction exposes bare ground, increasing susceptibility to wind erosion, water erosion and sediment movement into nearby watercourses.

Drainage and hydrology:

East Pye have failed to properly assess the drainage and runoff effects. Large solar schemes can cumulatively alter natural drainage patterns, infiltration rates, overland flow paths and local flood behaviour.

- Concentrated runoff from panel edges can create localised erosion or ponding if drainage is not well designed.

Contamination risks:

- Ground condition will be affected by accidental fuel or oil spills during construction, transformer oils, concrete washout, wheel washing, and disposal of damaged equipment.

Post Decommissioning:

Even if soil is not permanently degraded or no decommissioning bond for soil restoration is in place, ground conditions can affect ease of cultivation after decommissioning, drainage performance especially across the clay soil within the area of East Pye Solar scheme, crop yields will be reduced as soil is less performing and machinery access could be harder due to structure of soil.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider impact to ground conditions, and it cannot be adequately addressed by project-specific mitigation alone.

Cumulative impact of EMF

EMFs are generated by;

- Underground and aboveground AC cables;
- Inverters convert DC electricity from panels to AC)
- Transformers;
- On-site substations;
- BESS;
- Grid connection infrastructure

Cumulative effects on wildlife are very different especially on bats, pollinators, fish and aquatic life although research is still limited it is now showing signs of being detrimental.

Cumulative effects of EMF exposure with other infrastructure associated with industrial sized solar like high-voltage transmission lines, BESS, substations are considered greater especially if exposure is near them all.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider EMF harm, and it cannot be adequately addressed by project-specific mitigation alone.

Cumulative impact on utilities

The cumulative impact on utilities proposal becomes significant once the scheme is assessed alongside other solar projects, housing growth, grid-reinforcement works, and energy infrastructure upgrades.

The area currently has:

- Low-capacity rural electricity distribution (11-33kV);
- Limited water and wastewater infrastructure, often reliant on small mains or private systems. Mains water supply pressure is very low on Saxlingham Green
- Minimal telecoms infrastructure, with patchy mobile coverage and limited fibre. Many households rely on satellite like Starlink, for communication due to issues with signal
- problems in rural environments
- Other solar projects feeding into the same grid corridor
- Housing developments in Long Stratton, Hempnall, Tasburgh and beyond
- Grid-reinforcement works for the Norwich-Branford 400kV line
- Battery Storage installations
- Road and drainage upgrades

Site 7, when assessed cumulatively with other Solar proposals, housing development and energy-infrastructure works, would:

- Overload local electricity and telecoms network;
- Increase pressure on water and wastewater systems;

- Alter drainage and hydrology across multiple sites;
- Create long-term waste- management challenges;
- Introduce permanent grid-reinforcement.

This would result in major adverse cumulative impacts on utilities that cannot be mitigated. This cumulative connection is a material planning concern under the NSIP cumulative effects guidance, NFFP infrastructure policies and local plan requirements for sustainable development.

Cumulative impact of major accidents and disasters

The Scoping Opinion issued in **February 2025** explicitly requested that "Major Accidents and Disasters" be a dedicated chapter in the upcoming Environmental Statement, rather than being "scoped out" as originally proposed by the developer.

Area of mixed sensitivity:

- Of High Sensitivity yet seen as low-risk baseline even though it has a major road network passing through it;
- The area around Saxlingham Nethergate Parish along with all the surrounding parishes, is served by limited-capacity emergency services using the same narrow rural lanes as residents;
- Characterised as main settlement and dispersed properties, farms and heritage assets with long response times in adverse conditions;
- Fire and Rescue is mainly run as 'on call';
- The nearest A&E department is approximately 10 miles away and would take 30mins on a blue light;
- Assisted by air ambulance for longer distances and more serious emergencies;
- The main emergency route is A140 from Norwich for specialist Fire and Rescue as well as emergency medical attendance.

That means the landscape has little built-in resilience to multiple, simultaneous incidents.

Cumulative risk arises the East Pye Solar scheme is considered alongside:

- Other solar sites, further solar projects and associated BESS and Substations;
- Housing growth and increased traffic;
- Grid-reinforcement works and high-voltage infrastructure;
- More HGVs, more plant, more people, and more complex utility networks.

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider major accidents and disasters, and it cannot be adequately addressed by project-specific mitigation alone.

Cumulative impact of glint and glare

- **Tibenham Airfield (Gliding Centre):** The General Aviation Advisory Committee (GAAC) and local gliding clubs have raised significant safety concerns regarding the proximity of East Pye Solar to Tibenham Airfield regarding glint and glare, bird strike and proximity to the runway and emergency landin areas?

- **MoD** have raised objections to The Drovers due to safety concerns over bird strike and interference with radar as well as glint and glare. As the area of South Norfolk proposed for East Pye Solar is used daily by RAF and AAF for 'dog fighting' manoeuvres and low flying military transport plans, the scheme could have significant impact to their daily flight training and should be considered;
- **Glint and Glare:** A dedicated technical assessment is required to evaluate potential dazzle for pilots on approach or in the circuit. The Scoping Opinion mandates that the Environmental Statement (ES) assess these effects for both Tibenham and other nearby private airfields (e.g., Old Buckenham Aerodrome).

The cumulative risk is a material consideration under the NSIP regime and NPPF requirements to consider glint and glare risk, and it cannot be adequately addressed by project-specific mitigation alone.