



WRITTEN REPRESENTATION ON BEHALF OF NORFOLK WILDLIFE TRUST

Application by East Pye Solar Limited for the East Pye Solar Development Consent Order

Planning Inspectorate Reference: EN0110014

Introduction

Significant amendments and assurances are required before the principle of this development is acceptable so that adequate safeguards are secured to ensure that impacts on wildlife, habitats, ecological networks and protected species are fully avoided, mitigated or compensated.

Norfolk Wildlife Trust (NWT, Registered charity no. 208734) supports the urgent transition to renewable energy generation and recognise the important contribution that solar energy will make towards achieving net-zero carbon targets. However, the climate and nature crises must be addressed in parallel. Renewable energy infrastructure should be designed and delivered in a way that avoids, minimises and mitigates adverse effects on biodiversity and contributes positively to nature recovery.

Our comments focus on areas where further clarification, stronger commitments or additional mitigation may be necessary to provide confidence that ecological impacts can be effectively managed throughout the lifetime of the scheme. Whilst the Applicant concludes that there will be no significant adverse residual ecological effects following mitigation, we consider that several important ecological matters require detailed scrutiny during Examination.

Summary of Key Issues

We consider that the following matters require particular critical attention:

- Ensuring that impacts on County Wildlife Sites (CWS) and other areas of ecological importance are fully avoided and appropriately buffered.
- Protecting habitat connectivity and ecological networks, particularly those used by bats and other mobile species.
- Demonstrating that lighting, construction activity and operational infrastructure will not adversely affect protected species.
- Providing greater certainty regarding the implementation and long-term effectiveness of mitigation and management measures.
- Securing biodiversity enhancements and Biodiversity Net Gain outcomes through robust monitoring, management and adaptive interventions.

County Wildlife Sites and Ecological Networks

County Wildlife Sites represent an essential component of Norfolk's ecological network and often provide important habitat for priority species outside nationally designated sites. As outlined in paragraph 8.6.7 (ES Chap 8), the Order Limits include parts of two CWSs; Lower Spring Wood CWS (within CR9), and Fritton



Grange Meadows CWS (within CR7), and are adjacent/in the immediate vicinity of several others. The Order Limits also include or adjoin several Roadside Nature Reserves (RNRs), including Bussey's Loke RNR (Sub-Site 7G), Market Lane RNR (Sub-Site 8A), Parkers Lane RNR (Area 1) (CRC4), and Parkers Lane RNR (Area 2) (CRC4). Both direct and indirect impacts on wildlife sites and associated habitat networks must be avoided.

- **Potential impacts on Fritton Grange Meadows CWS**

- This includes an area of lowland fen habitat within the cable route corridor. Lowland fen is an irreplaceable habitat and is highly sensitive to hydrological change, groundwater disturbance, compaction and pollution. It is stated that Horizontal Directional Drilling (HDD) will be used and the Outline CEMP includes design measures to reduce impacts through run-off control, pollution prevention and dust control during construction and specifies Stand-off distances of 30m from the CWS, which we welcome.
- However, section 4.4 of the Outline Cable Route Construction Statement states that the technology used for the HDD will be determined by feasibility studies carried out at each crossing during the detailed design stage and in accordance with a method statement. The Outline CEMP also states that a Hydrogeological Risk Assessment will be undertaken, "if required". Although the applicant states that HDD will pass beneath the fen at a depth of at least 5m, insufficient evidence has been provided to demonstrate that construction activities will not affect groundwater conditions or the hydrological processes upon which the fen depends. The applicant has also stated that a Water Management Plan will form part of a detailed CEMP and will include details of pre-construction, construction, and post-construction water quality monitoring. Further details are required to allow proper scrutiny.
- The oCEMP confirms that the precise locations of HDD entry and exit points will only be determined at the detailed design stage. Without this information it is not possible to fully assess the ecological impacts or determine whether the proposed buffer distances are sufficient. HDD entry and exit locations should be identified prior to examination close.

- **Potential impacts on Spring Wood CWS**

- We have previously recommended that Site 3 is dropped from the site selection due to potential impacts on the CWS/ancient woodland/bats. While we welcome some of the changes that have been made, we remain concerned about potential impacts of work in this area. Sheet 11 (of 13) of the Green Infrastructure strategy outlines the plans for the area. Although there is some native scrub planting for nature conservation and biodiversity, most of the measures are proposed for visual screening. We would particularly recommend revisiting the detailed plans for the buffer areas around the CWS, which are currently allocated for a tussocky grass mix. Ecotones should be allowed to establish around existing woodland. This would include allowing woodlands to spread laterally and naturally through wide buffer strips that are not planted.

- **Retention and protection of mature hedgerows, woodland edges and field margins**

- The Environmental Statement identifies partial removal of 32 hedgerows (we are unclear of the exact length), removal of five trees; and temporary removal of sections of hedgerow for cable installation and access. Many hedgerows in this landscape are historic features that perform important ecological functions and provide connectivity between designated sites and woodland habitats. We request confirmation that no ancient or species-rich hedgerows



will be removed, even temporarily, additional safeguards for veteran hedgerows, detailed restoration specifications and monitoring requirements for all temporary removals.

- **Impacts on road-side verges**

- The ES acknowledges that access to sites may require temporary reductions to overgrown hedgerows and tree canopies adjacent to roads. We welcome the statement that no other activities are proposed within Roadside Nature Reserve (RNR) boundaries, however this does not fully address impacts to verges outside designated RNRs. This is an area of high importance for rare botany but the application does not provide a comprehensive assessment of construction impacts on roadside verge habitats across the transport network. Further botanical surveys are required to understand the baseline and to avoid harm, especially in the areas proposed for transport, haul roads, or road widening.
- Even where no direct habitat removal is proposed, repeated use by construction traffic can degrade species-rich verge vegetation. This is particularly true for Abnormal Indivisible Loads (AILs).
- The Examination should establish the extent of any verge loss, disturbance, compaction or vegetation clearance associated with construction activities and ensure that appropriate avoidance, protection, reinstatement and monitoring measures are secured through the DCO.

Bats

Bats remain a principal ecological consideration. The Applicant's own assessment concludes that the Order Limits and surrounding landscape support a "nationally important assemblage of foraging and commuting bats". The ES records eleven bat species within the Order Limits including barbastelle, which the Applicant identifies as "the rarest bat in the UK". The site lies within a landscape containing mature hedgerows, tree belts, woodland blocks and other linear habitat features that are likely to function as important commuting and foraging routes. We welcome the retention of many of these features and the applicant's recognition of their ecological importance. Nevertheless, we consider that further assurance is required to demonstrate that bat populations will not experience a loss of ecological connectivity as a result of the development.

For many bat species, the value of a hedgerow or tree line lies not simply in its physical presence but in its ability to function as a connected movement corridor. Particular care should be taken to ensure:

- Sufficient stand-off distances between solar infrastructure and key commuting features.
- Retention of continuous dark corridors through and around the site.
- Protection of mature trees and associated flight lines.
- Provision of habitat enhancements that strengthen rather than merely maintain existing connectivity.

Where ecological corridors are relied upon as mitigation, management prescriptions and monitoring arrangements must be sufficiently detailed to demonstrate that they will remain functional throughout the operational life of the scheme.

The Environmental Statement (paragraph 8.9.607) concludes that temporary hedgerow gaps of up to 10m would not significantly affect bat movement. NWT does not agree that this conclusion is sufficiently



evidenced. For barbastelle bats in particular, even relatively small breaks in linear features can reduce permeability of commuting routes and alter movement patterns and even relatively small interruptions to linear habitat features can affect commuting behaviour and habitat use.

The Applicant relies substantially on retention of existing hedgerows and habitat corridors to maintain connectivity. Sufficient buffers must be secured around important commuting routes.

Habitat creation cannot automatically replace established commuting routes and mature landscape features which may take decades to achieve equivalent ecological function. Given the presence of a nationally important bat assemblage and records of barbastelle, NWT considers that a precautionary approach is required.

Lighting

We welcome the applicant's commitment to minimising operational lighting as this is a key component of ecological mitigation. However, lighting remains a potentially significant issue for bats and other nocturnal wildlife, particularly during construction. We recommend that:

- All lighting follows a strict "dark skies" approach.
- Detailed lighting design is informed by ecological sensitivity mapping.
- Lux thresholds are established for key commuting corridors.
- Monitoring is undertaken where lighting-sensitive bat activity is identified.
- Temporary construction lighting is subject to the same ecological controls as permanent infrastructure.

Securing these measures would provide greater confidence that important bat flight routes remain functionally dark.

Construction activity represents the period during which ecological risks are likely to be greatest. Effective delivery of the CEMP and associated ecological controls will depend upon the detail and enforceability of these measures. Particular attention should be given to timing restrictions for vegetation clearance, protection of retained habitats during construction, ecological supervision of sensitive works, clear procedures for protected species encounters, biosecurity and invasive species controls, and monitoring and reporting requirements. Adaptive management provisions should also be included so that additional mitigation can be implemented promptly if unexpected ecological effects are identified.

Biodiversity Net Gain and Habitat Enhancement

We strongly support the objective of delivering measurable biodiversity gains alongside renewable energy infrastructure. The extensive operational lifespan of the development has the potential to provide significant biodiversity benefits if habitats are established and managed appropriately. We would welcome greater detail regarding management objectives, performance indicators and contingency measures should habitat creation fail to achieve the anticipated outcomes. Predicted biodiversity gains may rely heavily upon future habitat condition improvements which can be difficult to secure in practice without robust monitoring and intervention mechanisms.



Farmland birds and open countryside species

The assessment may understate impacts upon farmland bird assemblages associated with the extensive conversion of agricultural land to solar infrastructure. The Scheme would introduce extensive panel arrays, perimeter fencing, inverter stations, substations, internal access tracks and associated infrastructure across a large rural landscape. This may result in displacement effects, loss of functional foraging habitat, loss of breeding habitat, impacts on wintering bird assemblages, long-term habitat management requirements. Monitoring arrangements and trigger mechanisms should predicted outcomes not be achieved.

Landscape Environmental Management Plan (LEMP)

The Outline LEMP contains a relatively comprehensive package of habitat creation and management measures. However, we have concerns regarding whether it will deliver genuine biodiversity enhancement, adequately compensate for habitat fragmentation, and provide sufficient certainty that impacts on wildlife, ecological networks and protected sites will be mitigated over the operational life of the scheme. Many measures remain indicative (ie species mixes, habitat locations, management prescriptions, monitoring details) will be determined later and are deferred to later detailed design, limiting confidence in outcomes.

A recurring issue throughout the document is that many proposed woodland belts, hedgerows and tree belts are justified primarily for visual screening, glint and glare mitigation and landscape integration. This creates a risk that habitat design will be driven by landscape objectives rather than ecological function. Instead many habitat measures appear to be perimeter screening planting around solar infrastructure.

A significant weaknesses is the repeated targeting of only "Moderate" condition habitat. For a development of this size and one promoting substantial BNG gains, this is not ambitious enough. We request that habitat condition targets are raised from Moderate to Good where feasible.

Insufficient Evidence base

We have concerns that currently gaps in the evidence base mean the Examining Authority lacks enough ecological evidence to be confident that impacts on the River Tas, white-clawed crayfish, non-ancient/non-veteran trees and associated habitats have been properly assessed and can be effectively mitigated. We note that other parties have drawn attention to this. We understand that The Planning Inspectorate and Environment Agency previously requested further crayfish surveys, but these were not undertaken. This means that the examination is proceeding before the ecological evidence base is settled and that the Applicant has not demonstrated compliance with the precautionary principle. There is insufficient confidence that all ecologically valuable trees and hedgerow features have been properly identified, in particular veteran coppice stools, ancient hedgerow trees and root systems that may be overlooked by current surveys.

Long-Term Management and Monitoring



A recurring theme across the ecological mitigation package is the reliance on future management plans and detailed design stages. It is imperative that these future documents are supported by sufficiently robust commitments within the consent framework. To provide confidence in delivery, there must be clearly defined ecological objectives, measurable success criteria, independent monitoring arrangements, regular reporting to the relevant authorities and agreed trigger mechanisms for remedial action where ecological outcomes are not being achieved. Long-term monitoring is particularly important given the scale and duration of the development.

Considering the significant complexities involved in ensuring the mitigation and compensation habitats proposed for this scheme meet the required outcomes, we want to see an Ecological Stakeholder group set up, to advise on the scheme's design and ongoing management of ecological areas and be reactive to monitoring data and difficulties in habitat establishment on site.

Cumulative effects

Cumulative ecological effects can be dismissed lightly. Norfolk is currently experiencing increasing pressure from major energy, grid and infrastructure proposals. Whilst individual projects may conclude that impacts are limited, cumulative effects may arise through progressive loss of farmland habitat, fragmentation of ecological networks, degradation of bat commuting landscapes, pressures upon protected species populations and reduction in landscape-scale habitat permeability. We consider that cumulative effects on bats are of particular importance given the Applicant's identification of a nationally important assemblage and the dependence of many species upon extensive connected landscapes.

Conclusion

The acceptability of the East Pye Solar Farm proposal will depend upon demonstrating that ecological impacts, particularly those affecting County Wildlife Sites, habitat connectivity and protected species such as bats, can be effectively avoided and mitigated through detailed and enforceable measures. We therefore ask the Examining Authority to ensure that robust requirements and management commitments are secured in relation to:

- Protection of County Wildlife Sites and ecological networks.
- Maintenance of habitat connectivity for bats and other wildlife.
- Strict controls on lighting during both construction and operation.
- Delivery and monitoring of biodiversity enhancement measures.
- Long-term ecological management with clear success criteria and adaptive management provisions.



Summary of Norfolk Wildlife Trust's Written Representation on the East Pye Solar Development Consent Order

Planning Inspectorate Reference: EN0110014

NWT's principal concern is that the Applicant has not yet provided sufficient certainty that ecological impacts can be effectively managed throughout the lifetime of the scheme. While the Environmental Statement concludes there will be no significant residual ecological effects, NWT considers that several important ecological issues require further scrutiny and stronger commitments.

The climate and nature crises must be addressed together, and the East Pye Solar Farm should only proceed if stronger safeguards are secured to avoid, mitigate and compensate for impacts on wildlife, habitats, protected species and ecological networks.

The key issues are:

- Protection of County Wildlife Sites (CWS) and other ecologically important areas.
- Maintenance of habitat connectivity and ecological networks, particularly for bats.
- Assurance that lighting, construction activities and infrastructure will not adversely affect protected species.
- Greater certainty over the implementation and long-term effectiveness of mitigation measures.
- Delivery of meaningful biodiversity enhancement and Biodiversity Net Gain (BNG) outcomes supported by robust monitoring and adaptive management.

We have specific concerns regarding impacts on Fritton Grange Meadows CWS, which contains irreplaceable lowland fen habitat. Although Horizontal Directional Drilling (HDD) is proposed beneath the fen, we consider that insufficient evidence has been provided to demonstrate that construction will not affect groundwater conditions or hydrological processes. More detail is sought on hydrogeological assessments, water monitoring and HDD entry and exit locations.

Concerns also remain regarding Lower Spring Wood CWS, where we question the suitability of development in proximity to ancient woodland habitats.

We highlight the importance of retaining mature hedgerows, trees, woodland edges and field margins and request stronger protections, restoration requirements and monitoring provisions.



We also believe roadside verge habitats have not been adequately assessed and that further botanical surveys are needed to prevent damage from construction traffic, haul roads and abnormal loads.

Bats are a major ecological issue. The site supports a nationally important bat assemblage, including barbastelle bats, one of the UK's rarest species. We are concerned that temporary hedgerow gaps, habitat fragmentation and insufficient buffer distances could disrupt important commuting and foraging routes. Habitat creation cannot readily replace mature landscape features and we call for a precautionary approach, including protection of dark corridors, stand-off distances from key features and long-term monitoring.

Lighting is another significant concern. NWT supports commitments to minimise lighting but seeks a strict dark skies approach, ecological sensitivity mapping, limits on lighting levels near bat corridors and controls on both operational and construction lighting.

The Trust stresses that construction poses the greatest ecological risk and therefore requires strong, enforceable controls through the Construction Environmental Management Plan (CEMP), including ecological supervision, habitat protection measures, timing restrictions, biosecurity provisions and adaptive management.

Although NWT supports the ambition to deliver Biodiversity Net Gain, we believe there is insufficient detail regarding habitat management objectives, success criteria and contingency measures if habitat creation fails. Similar concerns extend to farmland birds, where the conversion of large areas of agricultural land to solar infrastructure may result in habitat loss, reduced foraging opportunities and displacement.

We have concerns around the Outline Landscape and Ecological Management Plan (oLEMP), as many habitat measures are still indicative and lack sufficient detail to guarantee ecological benefits. We note that many proposed planting schemes appear to be designed primarily for visual screening rather than ecological function.

The submission highlights significant gaps in the ecological evidence base. For example, we note that further crayfish surveys previously requested by the Planning Inspectorate and Environment Agency were not completed, leaving uncertainty over compliance with the precautionary principle.

There is a reoccurring reliance on future plans and detailed design stages. Clearer commitments, measurable ecological objectives, independent monitoring, reporting requirements and trigger mechanisms for remedial action must be secured through the Development Consent Order. We recommend establishing an Ecological Stakeholder Group to oversee habitat creation, management and monitoring throughout the life of the project.

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Finally, NWT feel that cumulative ecological impacts have not been adequately considered. With numerous energy and infrastructure projects planned across Norfolk, cumulative impacts on farmland habitats, ecological connectivity, bats and wider landscape permeability may become significant even if individual projects conclude that effects are limited.