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Application by Sunnica Ltd for an Order Granting Development Consent for the Sunnica Energy Farm Project

Written representations from Suffolk Wildlife Trust

10 November 2022

Summary

The Suffolk Wildlife Trust has continued to engage with the Sunnica Energy Farm Project Team through its environmental consultants AECOM to resolve outstanding concerns over the effect of the proposal on significant ecological features. Discussions have been constructive and are continuing. The issues which the Trust consider to remain outstanding and need to be resolved are:

- Impacts on Chippenham Fen and Snailwell Poor's Fen Site of Special Scientific Interest (SSSI), Snailwell Meadows SSSI and the Fenland Special Area of Conservation (SAC).
- Impacts on invertebrates which lay their eggs in water, including several nationally rare species
- Impacts on County Wildlife Sites (CWS). Potential for cable crossing through Havacre Meadows and Deal Nook CWS to have adverse impacts on the site
- Impacts on stone-curlew and land functionally linked to the Breckland Special Protection Area
- Impacts on arable flora and the unique Brecks plant communities
- Impacts on wintering birds, breeding birds, bats and badgers
- Impacts on ecological connectivity and nature recovery
- Impacts on chalk streams and other freshwater ecosystems
- Impacts of cabling route through the ecological mitigation area ECO4
- Biodiversity Net Gain
- Habitat creation
- Framework Construction Environmental Management Plan (CEMP)
- Decommissioning
- Outline Landscape and Ecology Management Plan (LEMP)
- Monitoring and Evaluation

Our concerns and suggestions to resolve these issues are detailed below. We, along with other members of the ecology stakeholder group which has been in discussion with AECOM over the

ecological issues of the Sunnica proposal, have provided a collective view on these issues. Our suggestion is that the proposals should be improved to match the ambitions in this document, which we have included below.

Update on Suffolk Wildlife Trust engagement with Sunnica Energy Farm proposals

Since submitting our relevant representation and registering as an interested party in the DCO application for Sunnica Energy Farm, Suffolk Wildlife Trust has continued to engage with the Sunnica Energy Farm Project Team through their appointed consultants at AECOM. We have also continued to meet with other ecology stakeholders including the Wildlife Trust for Bedfordshire Cambridgeshire and Northamptonshire, the RSPB, Natural England, Suffolk County Council, West Suffolk Council, Cambridgeshire County Council and East Cambridge District Council, to discuss and better understand the likely ecological impacts of the scheme with a view to ensuring the scheme will adequately protect, restore, and enhance the natural environment of West Suffolk and East Cambridgeshire.

Most of our concerns detailed below are the subject of current discussions with AECOM and are reflected in the Statement of Common Ground.

Impacts on Chippenham Fen and Snailwell Poor's Fen Site of Special Scientific Interest (SSSI), Snailwell Meadows SSSI and the Fenland Special Area of Conservation (SAC).

These SSSI and the SAC are of international significance and support habitats and species which are rare and vulnerable. It is of the utmost importance that they should be protected. However, they do not survive in isolation; as wetland sites they are particularly dependant on the local hydrology which is also related to soils and geology, they are vulnerable to changes in air quality, climate change and can be affected by surrounding land uses. Government policy (particularly the National Planning Policy Guidance, NPPF) and recent legislation (eg Environment Act 2021) recognises that such special sites are crucial to our ability to tackle the biodiversity and climate crises not only by ensuring their survival but also by enhancing and restoring habitats and species and creating functioning ecological networks around and between them.

Paragraph 174 of the National Planning Policy Guidance (NPPF) 2020 states Planning policies and decisions should contribute to and *enhance* the natural and local environment by:

(a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

(b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services

(d) minimising impacts on and providing net gains for biodiversity, including by *establishing coherent ecological networks* that are more resilient to current and future pressures.

[*Our emphasis*]

Paragraph 179 (b) of the NPPF includes the policy that plans should: promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

There is currently insufficient evidence that construction and operation of solar arrays at W01 and W02, and the cable corridor close to this cluster of designated fenland sites will not have significant adverse impacts on these sites, their designated features, and/or associated species assemblages, and our ability to enhance and restore nature and ecological networks in the surrounding landscape.

Additional evidence will be required to provide confidence that significant direct and indirect impacts from construction and operation will be avoided or adequately mitigated, including but not limited to hydrology, air quality (in particular, airborne nitrogen deposition and dust), light and noise disturbance, and ecological connectivity.

Impacts on invertebrates which lay their eggs in water, including several nationally rare species
The internationally and nationally important statutory sites, Chippenham Fen and Snailwell Poor's Fen SSSI, Fenland SAC, and Snailwell Meadows SSSI, support scarce and vulnerable invertebrate populations associated with wetland habitats. There is some evidence in the scientific literature as well as anecdotal evidence that flying insects that lay their eggs in water can be attracted to and lay their eggs on solar panels.

There is insufficient evidence at present to inform a reasonable assessment of the likely scale of any impact of this effect at a population level on the affected invertebrate populations but there is the potential for this to be significant.

The solar arrays at W01 and W02 are of particular concern, and we note the joint Local Impact Report submitted by East Cambridgeshire District Council, West Suffolk Council, Cambridgeshire County Council and Suffolk County Council calls for all of the arrays in Sunnica West B to be removed as part of a precautionary approach to impacts on these designated sites and in view of the emerging Nature Recovery Network in East Cambridgeshire and ambitions to expand and connect wetland habitats in this area.

If the applicant suggests mitigation to prevent flying insects in existing wetland sites from reaching the solar panels at W01 by screening, we are concerned this will limit the effectiveness of work to restore and re-connect wetlands and associated habitat in this area, as mobile species should be permitted to colonise newly restored areas and to move between wetland sites.

Impacts on County Wildlife Sites (CWS). Potential for cable crossing through Havacre Meadows and Deal Nook CWS to have adverse impacts on the site
County Wildlife Sites (CWS) play a key role in the conservation of Suffolk's biodiversity. CWS in Suffolk cover just under 3% of the county. CWS designation is non-statutory, but it recognises the high value of a site for wildlife. Many sites are of county and often regional or national importance. In addition to their value for wildlife within their boundaries, they are important reservoirs of species which will often use or migrate across surrounding areas of land and may be able to re-colonise surrounding areas if management becomes favourable. Given these policies Suffolk Wildlife Trust seeks not only to protect CWS from damaging development, but also to promote the restoration of habitats and ecological networks between CWS, recognising their crucial role as stepping-stones within such networks. Paragraphs 174 and 179 (b) of the NPPF on restoration and enhancement of nature and ecological networks are material considerations in relation to CWS, as they are for statutory sites.

Any deterioration in condition of CWS will adversely affect biodiversity and wildlife, and the contribution of CWS to maintaining ecological connectivity and acting as stepping-stones for nature through the landscape.

SWT would like habitats and features of CWS within the scheme boundary to be prioritized for enhancement through the creation and implementation of management plans.

There is potential for cable crossing through Havacre Meadows and Deal Nook CWS to have adverse impacts on the site. Horizontal Directional Drilling is being proposed at this location. Entry and exit pits should be set back from the boundary of the CWS to increase confidence that these receptors will not be impacted. There is a need for evidence that effects on local hydrology will not lead to adverse impacts. Any residual impacts should be offset.

Impacts on stone-curlew and land functionally linked to the Breckland Special Protection Area

The UK stone-curlew population declined by more than 85 per cent between 1940 and 1985, to a low of around 160 pairs. Numbers have risen over the past 15 years due to partnerships being created between wildlife conservation bodies and landowners to identify and protect breeding sites in Breckland, so there are now over 350 breeding pairs in most years. The stone-curlew is afforded special protection under the Wildlife and Countryside Act 1981 and the EU Birds Directive. The Breckland Special Protection Area and its constituent Breckland Farmland Site of Special Scientific Interest are designated to protect the core of the population but it is recognised that farmland habitats outside of the designated areas are used for foraging and nesting, particularly as the population expands because of the success of conservation work. Stone-curlew use land within and adjacent to the proposed Sunnica development. The species is very sensitive to disturbance: adult birds can be disturbed by human presence as much as a third of a mile (500m) away. They also nest at lower densities within one mile (1.6 km) of developed areas and major roads.

We are concerned that construction and maintenance activities within operational areas of the development will reduce suitability for stone-curlew nesting as the species is very vulnerable to disturbance. Stone-curlew are reported on in Appendix 8I, Annex D of the ES. Stone-curlew surveys, undertaken in 2019, 2020 and 2021, found that five pairs of stone-curlew are breeding within the order limits or adjacent to it; noting that the survey was not consistently undertaken for the whole of the breeding season nor for all the areas within 500m of the order limits (see ES Appendix 8I 3.2.19-27) and therefore may not be an accurate representation of the use of the area by stone-curlew. The potential for construction disturbance on stone-curlew within 1.5km of nesting locations or newly created habitats during the breeding season is recognised in section 5.3.16-17 (APP-092). However, the measures proposed are focused on stone-curlew within the DCO site and do not attempt to mitigate effects on stone-curlew which may nest within 1.5km of the DCO site.

We question the underlying assumption that appears to have been applied in the assessment of potential for significant cumulative effect on stone-curlew. An assumption has been made that if any individual project or scheme level effects have been assessed to be insignificant or adequately mitigated, then there is no potential for in combination effects to be significant.

By way of illustration, if the theoretical threshold for a significant effect is 0.5 (the units don't matter) and 6 individual projects on their own each have an insignificant effect of 0.1, the overall effect (0.6) will be significant.

Therefore, we request further clarification from the Applicant on how they have established that there will be no significant cumulative effects from the Scheme in combination with other developments.

Section 8.12.4 of EN010106 states "The schemes in Table 8-14 were given particular consideration owing to their proximity to the Scheme, application status and potential for cumulative effects, due to similar impacts on important ecological receptors." In the table it reports, for each development, that "No – the Applicant for the 'other development' has provided sufficient mitigation on their site and no significant impacts have been reported." It is not clear whether this approach has considered the potential for displacement of stone-curlew from the Scheme and the reliance on mitigation areas to result in cumulative effects on stone-curlew in any mitigation areas or development footprints of the other developments.

Section 8.13.5 states that "No plans or projects identified in Appendix 5A of this Environmental Statement [EN010106/APP/6.2] are considered in combination to impact important ecological features identified in this assessment and considered in Section 8.9. Therefore, the main potential for ecological impacts during construction, operation and decommissioning of the Scheme is considered within the Order limits itself. Other schemes are not likely to contribute to the effects on protected species identified in this chapter and therefore the effects are not significant." This does not appear to consider effects on stone-curlew within 1.5km of the Order limits or of the other developments assessed. 1.5km is the distance within which it is known that nesting density declines around development, and therefore the potential for cumulative impacts on stone curlew within 1.5km of the scheme and other developments should be assessed.

We note that Local authorities' Joint Local Impact Report states:

"8.68 The Councils are aware of planning applications in the immediate area of the development that should be considered in-combination with this application because of the potential for effects on Stone Curlew."

The LIR subsequently lists these planning applications and site allocations (8.69 to 8.71). It appears that not all of these allocations and applications have been assessed for cumulative impacts.

Furthermore, public access to mitigation areas is also likely to reduce their suitability. There is currently insufficient evidence that the current proposed offsetting measures (mitigation) will be adequate to eliminate any residual adverse impact on nesting stone-curlews on land functionally linked to the Breckland SPA.

Additional surveys are required to establish with greater confidence the number of stone-curlew nesting territories which will be affected by the scheme proposals. A precautionary approach should be taken to avoiding impacts where there is low confidence in the adequacy of mitigation.

We note that the Councils in their Joint Local Impact Report argue that lack of confidence in the effectiveness and amount of offsetting land provided requires a precautionary approach and panels should be removed from parcel E12 (and potentially parcels E05 & E13), which should be retained as stone-curlew habitat.

Impacts on arable flora and the unique Brecks plant communities

The Brecks is one of the most important botanical sites in the UK as a result of a combination of geology and climate. Underpinned by a bedrock of chalk, the overlying layers of sand vary in depth from thin wind-blown deposits to deep dunes; acidic and lime-rich soils often lie next to each other resulting in a remarkable juxtaposition of plants. Drought conditions prevail, with only 60 cm of rain in a year, and relatively hot summers and cold winters.

Under these conditions over 120 nationally rare and threatened plant species grow here, many of which are found nowhere else in Britain. A group of these species are associated with regular disturbance which usually is the result of tilling, a part of arable cultivation, and are therefore known collectively as arable flora.

There is insufficient survey evidence to understand the full impacts of the scheme on arable flora and Brecks plant communities and insufficient detail on proposed mitigation for any loss of these habitats and communities to provide confidence that there will not be any residual adverse impacts.

Further surveys and evidence are required to inform the assessment of likely impacts on these features. More detail should be provided on mitigation measures, including management for mitigation areas and mechanisms for securing these.

Impacts on wintering birds, breeding birds, bats and badgers

Surveys and monitoring for these protected species groups is incomplete and not sufficient to inform a full assessment of likely impacts. SWT would like to see monitoring expanded to provide sufficient evidence to support assessments of the likely impacts to these receptors from the scheme.

Additional surveys and more comprehensive monitoring are required for these species groups to assess likely impacts and inform avoidance, mitigation, and compensation in line with the mitigation hierarchy.

Impacts on ecological connectivity and nature recovery

As described earlier we believe it is very important to restore, enhance and connect important habitats in the locality, particularly the area between Chippenham Fen and Snailwell Meadows and along the valley of the River Snail. This will contribute to the emerging Nature Recovery Networks in East Cambridgeshire and West Suffolk.

We are concerned about the impacts of the development on ecological connectivity and restoration potential in the wider landscape within which the scheme would be located. There is potential for barrier effects from the construction and fencing of solar array areas to impinge on the movement of wildlife through the landscape between high value habitats and designated sites.

It is acknowledged that the mitigation areas have the potential to offset any barrier effects from the scheme that might reduce ecological connectivity, but more work is needed to quantify these effects and provided confidence that ecological connectivity will be enhanced.

More detail is needed of design elements that can be incorporated to help minimize barrier effects from the fenced solar array compounds themselves.

Impacts on chalk streams and other freshwater ecosystems

Only 200 chalk streams are known globally, 85% of which are found in the UK in southern and eastern England, including catchments within the locality of the development. These streams emerge from the chalk aquifer, so the very pure water is rich in minerals and remains at a fairly constant temperature year-round. This good water quality supports many invertebrate and fish species making them an important haven for wildlife. They are highly valued culturally and provide valuable recreational fisheries.

There is a lack of evidence to inform the assessment of likely impacts on chalk streams and other freshwater ecosystems, for example detailed hydrological investigations to assess impacts of cable crossings. There is insufficient setback between Lee Brook and solar arrays in E03 and E05, and insufficient Biodiversity Net Gain (BNG) for rivers and watercourses is indicated by the BNG report.

Potential for restoration and enhancement of watercourses and floodplains as part of the emerging Nature Recovery Network has received insufficient consideration in the location of the solar arrays adjacent to natural watercourses including the River Snail, River Kennett and Lee Brook, and in the design of ecological mitigation and enhancement measures for the scheme.

Impacts of cabling route through the ecological mitigation area ECO4
There is potential for hydrological impacts from cabling on adjacent fen habitats (Fenland SAC / Chippenham Fen Ramsar / Chippenham Fen & Snailwell Poor's Fen SSSI). Sufficiently detailed hydrological investigation is needed to assess potential for impacts.

Biodiversity Net Gain
The BNG report is incomplete and inadequate to assess the BNG the scheme can be expected to deliver. Specific issues include but are not limited to:

- Phase 1 survey used to assess existing habitat baseline is not adequate. UK Hab classification and methodology should be used.

- Habitat creation and/or enhancement required to mitigate or compensate for impacts on protected species or habitats can only count toward No Net Loss (NNL) and must be presented separately from that counted towards gains beyond NNL.

- Predicted BNG for rivers and ditches is only 1%. This should be increased to 10% minimum through design and delivery of restoration and enhancement measures.

The preparation of the BNG report should follow DEFRA guidance provided alongside V3.1 of the Biodiversity Metric and adhere to CIEEM Good practice principles. A full copy of the Metric tool spreadsheet used in the BNG assessment should be provided. All GIS data used in the BNG assessment and plan should be provided to allow a full review/audit.

Habitat creation
The applicant's assessment of the likelihood of significant effects from the Scheme is highly dependent on the success of the habitat creation within the mitigation areas, as well as the successful creation of species rich grassland and field margins for arable flora within the solar arrays.

Insufficient detail has been provided of proposed habitat establishment and management processes and mechanisms for securing and maintaining habitats in good condition to provide confidence in the success of habitat creation in mitigation areas.

Framework Construction Environmental Management Plan (CEMP)
The level of detail of the Framework CEMP is not sufficient. The CEMP needs to provide sufficient detailed of precautionary working methods for avoiding impacts on ecological features during the construction phase of

development. Please see Local Impact Report for more detailed comments from Local Authorities on the requirements for the CEMP.

Decommissioning

There is uncertainty surrounding the decommissioning of the site and the retention of the created habitats in perpetuity, which creates doubts about the long-term retention of any benefits resulting from the scheme's proposed enhancements for wildlife and biodiversity.

Proposed retention of mitigation habitats and BNG habitats for the lifetime of the development only, increases the potential for loss of these habitats following decommissioning and the loss of any long-term benefit to biodiversity or contribution to nature recovery from habitat creation and enhancement in these areas.

It is the view of Suffolk Wildlife Trust and The Wildlife Trusts nationally that ecological mitigation, and Biodiversity Net Gain should be secured in perpetuity.

Outline Landscape and Ecology Management Plan (LEMP)

There is a lack of detail within the Outline LEMP. The full LEMP should be produced early in order to inform the inspector's decision There is a lack of detail of proposed habitat establishment and management processes and mechanisms. There is a need for the full LEMP to incorporate flexibility for management to be modified in response to monitoring of delivery, i.e. adaptive management plans for the different habitats and mitigation and enhancement areas within the scheme.

Monitoring and Evaluation

For there to be greater certainty as to the effectiveness of mitigation and enhancement measures it will be necessary for more detailed monitoring of ecological impacts to take place than is currently proposed. There is lack of sufficient ecological monitoring at all stages of the development, construction, operation, and decommissioning of the scheme to remove the potential to result in adverse ecological impacts and/or reduced ecological gains.

An ecological vision and ambitions for the Sunnica Energy Farm

Suffolk Wildlife Trust, along with other members of the ecology stakeholder group which has been in discussion with AECOM over the ecological issues of the Sunnica proposal (Wildlife Trust for Bedfordshire Cambridgeshire and Northamptonshire, the RSPB, Natural England, Suffolk County Council, West Suffolk Council, Cambridgeshire County Council and East Cambridge District Council) has provided their collective view on the issues relating to the Sunnica proposal as follows. Our suggestion is that the proposals should be improved to match the ambitions in this document, as follows.

Our vision

Sunnica Energy Farm should be an exemplar of ecology-led design, construction, operation, and decommissioning to protect, restore and enhance nature, healthy functioning ecosystems, and ecological connectivity. It should leave the natural environment in a measurably better state and make a significant and meaningful contribution to the creation of a Nature Recovery Network in East Cambridgeshire and West Suffolk.

Principles

1. Apply the mitigation hierarchy by prioritizing the avoidance of adverse impacts on ecology first, mitigating unavoidable impacts through good ecological design, and compensating for residual impacts only after the first two steps have been rigorously applied.
2. Prevent any adverse impacts on:
    a. statutory wildlife sites (SSSIs, SACs, SPAs and Ramsar sites, Local Nature Reserves and National Nature Reserves)
    b. non-statutory wildlife sites (Local and County Wildlife Sites)
    c. the features and qualifying species for which they are designated

    following the precautionary principle where the potential for significant adverse impacts exists but is uncertain.
3. Have a significant positive impact on biodiversity and ecology.

Ambitions

- Mitigation plans will include plans for adaptive management to ensure measures can be adapted if mitigation is not initially successful.
- Areas of habitat created and/or enhanced as part of Sunnica's mitigation, compensation, or net gain measures will be designed to **maximise connectivity with the wider ecological network**.
- Design of the scheme's solar array areas including **habitats within and around the solar panels will maximise biodiversity value of these areas** and minimize any fragmentation and/or ecological barrier effects.
- **Long term ecological monitoring** of the Sunnica Energy Farm development and mitigation, compensation, and enhancement areas, for the life of the development, will provide valuable scientific evidence for the ecological effects of large-scale solar farm schemes and inform the **adaptive management** of habitats retained or created for wildlife through this scheme, as well as design and delivery of future schemes.

- Sunnica will demonstrate a **best practice approach to planning and delivery of Biodiversity Net Gain**, guided by local, regional, and national conservation priorities for species and habitat, and with long term ecological monitoring in place to provide evidence of changes in species abundance and diversity across a range of taxa in habitat areas delivering BNG.[1]
- **Habitats** created and/or enhanced as part of the scheme's ecological delivery (mitigation, compensation, and net gain) should be retained beyond the lifetime of the development (after decommissioning) and **secured in perpetuity to provide a legacy for nature and people as part of a Nature Recovery Network in Cambridgeshire and Suffolk**.
- Access for people to areas of newly created or enhanced habitats for mitigation, compensation or Biodiversity Net Gain will be carefully planned, designed, and managed to deliver benefits from access to nature without compromising or reducing the value of these areas for wildlife. [2]
- A multi-agency Ecological Advisory Group will be retained in the long term to guide and support the ongoing management of the conservation interests of the site.

Areas of particular concern / interest

- Stone-curlews: creation, management and monitoring of offsetting habitat
- Chippenham Fen SAC: buffering and potential impact on flying aquatic invertebrates (that lay their eggs in water), potential for hydrological and soil impacts, opportunities for improving habitat connectivity
- Impacts on hedgerows.
- Lack of coherent consideration of ecology, landscapes, geology, archaeology, recreation, and hydrology in relation to the design, construction, operation and decommissioning of the scheme.
- Assessment of cumulative effects in combination with other plans and projects.
- Avoiding conflict between protecting archaeology and ecological outcomes / delivery of mitigation, compensation, and enhancement for biodiversity.
- Inconsistencies within the OLEMP and lack of clarity (even at a high level) regarding intentions for habitat creation at various locations and proposed long-term management methods (the latter may feed into construction requirements / panel and cable configurations e.g., to allow grazing)
- Long-term partnership with an ecological advisory group comprising ecologists from relevant NGOs, Natural England and local authorities to scrutinise monitoring data and adapt habitat management / site conditions and working practices where necessary to meet the ambitions of the Scheme, as set out above.

Priority species, habitats, sites, and ecological communities

Birds: Stone-curlew and other Schedule 1 species, skylark, farmland bird assemblage including turtle dove, and wintering birds.

[1] Suffolk Wildlife Trust has drafted principles and ambitions for Biodiversity Net Gain
[2] This is of utmost importance for the stone-curlew mitigation areas.

Plants: Breckland plant communities, including arable plants and semi-natural grass heathland species. Fen wetland plant communities at Chippenham Fen

Invertebrates: those associated with Chippenham Fen SAC and acid grassland habitats, areas of disturbed open and sandy ground around arable margins, River Snail.

Sites: Chippenham Fen NNR, Chippenham Fen and Snailwell Poor's Fen SSSI (part of the Fenland SAC), Brackland Rough SSSI, Havacre Meadows and Deal Nook CWS, Worlington Heath CWS, Badlington Lane CWS, and other County Wildlife Sites.

Habitats: chalk stream habitats and fen wetland habitats adjacent to scheme. Hedgerows. Mature trees and woodland. Acid and calcareous grassland. Arable field margins.

Opportunities to deliver for species conservation and wider ecosystem services benefits

- Supporting environmental delivery in farmland, e.g. through the Brecks Farm Wildlife Network – for species including stone-curlew, skylark and turtle dove, and for catchment sensitive farming and plants of arable field margins.
- Supporting efforts to reduce nitrate and phosphate inputs and mitigate impact of nutrient enrichment on Brecks plant communities, e.g. through the Brecks Shared Nitrogen Action Plan (Natural England led project).
- Opportunities to contribute to emerging Nature Recovery Networks.

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10 November 2022