

Date: 17 March 2022
Our ref: 382460
Your ref: EN010106



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BY EMAIL ONLY

Dear Sir / Madam

NSIP Reference Name / Code: Sunnica Energy Farm, EN010106

Registration identification number: 20031393

Thank you for your consultation on the above dated 27 January 2022 which was received by Natural England on 28 January 2022.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Relevant Representation

PART I: Summary of Natural England's advice. Natural England is generally satisfied that there are no fundamental reasons in principle why the development should not proceed

PART II: Natural England's detailed advice

- 1.1. Natural England's advice in these relevant representations is based on information submitted by Sunnica Ltd in support of its application for a Development Consent Order (DCO) in relation to Sunnica Energy Farm ("the project").
- 1.2. Natural England has provided advice in meetings to Sunnica Ltd's consultants in 2021, in particular in relation to the impact of the development on Stone Curlew and provision of offsetting measures. Natural England will work with Sunnica Ltd to develop a Statement of Common Ground (SoCG) as part of the examination process. We have recently received a copy of the draft SoCG and will start to review this in the coming weeks. Natural England is also working with Suffolk Wildlife Trust, The Wildlife Trust for Beds, Cambs and Northants, West Suffolk Council, East Cambridgeshire Council and the RSPB as an Ecological Advice Group to provide coordinated ecological advice.

- 1.3. These relevant representations contain a summary of what Natural England considers the main nature conservation and related issues¹ to be in relation to the DCO application, and indicate the principal submissions that it wishes to make at this point. Natural England will develop these points further as appropriate during the examination process. Further or additional points may be made throughout the DCO process, particularly if further information about the project becomes available.
- 1.4. Part I of these representations provides an overview of the issues and a summary of Natural England's advice. Section 2 of Part I identifies the natural features relevant to this application and summarises Natural England's overall view of the application and the main issues which it considers need to be considered by the Secretary of State.
- 1.5. Part II of these representations sets out all the significant issues which remain outstanding, and which Natural England advises should be addressed by Sunnica Ltd and the Examining Authority as part of the examination process in order to ensure that the project can properly be consented. These are primarily issues on which further information would be required in order to allow the Examining Authority properly to undertake its task or where further work is required to determine the effects of the project and to flesh out mitigation proposals and to consider compensation proposals to provide a sufficient degree of confidence as to their efficacy.
- 1.6. Natural England will continue to engage with Sunnica Ltd to resolve concerns and agree outstanding matters in the SoCG. Failing satisfactory agreement, Natural England advises that the matters set out in sections 4 to 6 will require consideration by the Examining Authority as part of the examination process.
- 1.7. The Examining Authority may wish to ensure that the matters set out in these relevant representations are addressed as part of the Examining Authority's first set of questions to ensure the provision of information early in the examination process.

¹ PINS NSIP Advice Note 11 Annex C sets out Natural England's role in infrastructure planning
https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/10/PINS-Advice-Note-11_AnnexC_20150928.pdf

PART I:

2. The natural features potentially affected by this application

2.1. The European / internationally designated sites relevant to this application are:

- 2.1.1. Breckland Special Protection Area (SPA)
- 2.1.2. Chippenham Fen Ramsar
- 2.1.3. Devil's Dyke Special Area of Conservation (SAC)
- 2.1.4. Fenland SAC
- 2.1.5. Rex Graham Reserve SAC

2.2. The nationally designed sites relevant to this application are:

- 2.2.1. Brackland Rough SSSI
- 2.2.2. Chippenham Fen and Snailwell Poor's Fen Site of Special Scientific Interest (SSSI)
- 2.2.3. Devil's Dyke SSSI
- 2.2.4. Rex Graham Reserve SSSI
- 2.2.5. Snailwell Meadows SSSI

2.3. The following European protected species may be affected by the proposed project:

- 2.3.1. Bats
- 2.3.2. Otter

2.4. The following Nationally protected species may be affected by the proposed project:

- 2.4.1. Badger
- 2.4.2. Water Vole
- 2.4.3. Wintering birds and breeding birds including Barn Owl, Common Quail, Hobby and Little Ringed Plover

2.5. The following areas of non-designated but valuable and sensitive habitat and natural resources could be affected:

- 2.5.1. Soils including best and most versatile land
- 2.5.2. Priority Habitat: Arable field margins, hedgerows, lowland calcareous grassland and lowland dry acid grassland
- 2.5.3. Havacre Meadows and Deal Nook County Wildlife Site

2.6. There are no nationally designated landscapes that will be impacted upon by the proposed scheme.

2.7. The proposed scheme may impact access for walkers, cyclists and horse riders through temporary loss or severance of public rights of way.

2.8. Biodiversity Net Gain: the applicant has carried out a calculation using the Biodiversity Metric 3.0 to propose to deliver biodiversity net gain.

2.9. The main issues raised by this application are:

- 2.9.1. **Soils (including best and most versatile land):** Out of a total of 1113.3 ha across the Order limits, 981 ha across Sunnica East and West sites comprise of agricultural land, of which 37.3 ha comprises temporary losses of best and most versatile land total (Agricultural Land Classification (ALC) grades 1-3a) for the life of the project. Long term

effects on agricultural land and soils are considered negligible and non-significant provided the development is limited to a maximum of 40 years and undertaken with steel piles and limited ground disturbance.

2.9.2. **Statutory designated sites:** Natural England is broadly satisfied that impacts to statutorily designated sites, including hydrological, air quality and disturbance of species, can be ruled out or proposed mitigation is sufficient to demonstrate no adverse effect. However further clarification is still required concerning:

2.9.2.1. Measures to offset impacts to Stone Curlew, a qualifying species of Breckland SPA.

2.9.2.2. Further details of noise and light impacts to Chippenham Fen

2.9.2.3. Further air quality assessment on the impact of vehicular traffic associated with the construction of the project on sites outside of the Order limits (Breckland SPA, Devil's Dyke SAC, Rex Graham Reserve SAC).

2.9.2.4. Hydrological impacts to Brackland Rough SSSI

2.9.3. **Non statutory sites:** impacts of the project during the construction phase to Havacre Meadows and Deal Nook County Wildlife Site requires further clarification.

2.9.4. **Protected species & priority habitats:** The proposals will directly and indirectly impact habitats and structures that support European and nationally protected species. Losses in habitat extent and continuity will require suitable avoidance and mitigation / compensation measures (including relevant licence applications).

2.9.5. **Biodiversity Net Gain:** further assessment is required by the applicant to distinguish biodiversity net gain calculations from mitigation and offsetting provision for impacts to statutory designated sites, priority habitats and protected species.

Part II:

NATURAL ENGLAND'S RELEVANT REPRESENTATIONS IN RESPECT OF SUNNICA ENERGY FARM

3. Planning Inspectorate Reference: EN010106

- 3.1. Natural England's advice is that in relation to identified nature conservation issues within its remit there is no fundamental reason of principle why the project should not be permitted but further evidence is required from the applicant to establish this.
- 3.2. Natural England advises that, if approved, the project must be subject to all necessary and appropriate requirements which ensure that unacceptable environmental impacts either do not occur or are sufficiently mitigated.
- 3.3. Natural England's advice is that there are a number of matters which must be addressed by Sunnica Ltd and the Examining Authority as part of the examination and consenting process before development consent can be granted. These matters, summarised in paragraph 3.4 below and set out in detail in section 4, are in Natural England's view so significant that it would be inappropriate to permit the project to proceed unless they were adequately addressed. However, Natural England's advice is that all these matters are capable of being overcome.
- 3.4. Natural England's headline points are that on the basis of the information submitted:
 - 3.4.1. Natural England is satisfied that we generally agree with the findings of the Environmental Statement that construction & operation of the proposed scheme will not have a significant adverse effect on statutory designated sites, subject to embedded and other proposed mitigation measures being detailed and agreed and secured in the DCO.
 - 3.4.2. Agricultural land use and soils: the applicants agricultural land classification (ALC) survey followed published ALC methodology and provided clear justification for correcting existing post-1988 survey data where used. 37.3ha of best and most versatile (BMV) (Grades 1, 2 and 3a in the Agricultural Land Classification (ALC) system) land was identified within the Order limits. We consider that the proposed development, if temporary as described, is unlikely to lead to significant permanent loss of BMV agricultural land, subject to the following:
 - 3.4.2.1. The development has a maximum operational life of 40 years
 - 3.4.2.2. The land is returned to agricultural use at the end of this period
 - 3.4.2.3. Low disturbance methods are to install the photovoltaic panels
 - 3.4.2.4. A decommissioning and re-instatement plan is prepared and submitted prior to the panels being removed.
 - 3.4.3. Breckland SPA: we agree with the conclusions in the Environmental Statement that there will be no adverse effect on the integrity of this site however further details are required on the provision, management and monitoring of offsetting habitat for Stone Curlew.
 - 3.4.4. Chippenham Fen and Snailwell Poor's SSSI, designated as Chippenham Fen Ramsar site, a component part of Fenland SAC; we agree with the conclusions in the Environmental Statement that hydrological, air pollution and impacts to aquatic invertebrates can be ruled out.

- 3.4.4.1. However further details are required to validate the conclusion of no adverse effect on the integrity of the site with regards impacts of noise and light pollution.
 - 3.4.5. We welcome the proposals to create biodiverse habitats within the Order limits but details of its construction, long-term management, maintenance and monitoring should be agreed with Natural England and secured in the DCO.
 - 3.4.5.1. Further information is required to determine the maximum number of Stone Curlew impacted by the proposed development as the surveys carried out did not meet the minimum recommended survey requirements for this species. This in turn will inform the suitability of the quantity and location of offsetting habitat proposed.
 - 3.4.5.2. Further information is required on the establishment, management and monitoring of offsetting habitat for Stone Curlew for the duration of the construction, operation and decommissioning of the proposed development.
 - 3.4.5.3. Natural England request input into the detailed habitat creation strategy for the proposed grassland and wetland adjacent to Chippenham Fen with regard to design, habitat creation and establishment methodology, and long-term management. Chippenham Fen is managed by Natural England as a National Nature Reserve.
 - 3.4.5.4. Further information is required on the provision and management of measures to offset impacts to other protected species and loss of priority habitats.
 - 3.4.5.5. Further information is required on the status of offsetting habitats at and after decommissioning of the development including securing ongoing management if they are retained.
 - 3.4.6. Snailwell Meadows SSSI: we agree with the conclusions in the Environmental Statement that the proposed development will not damage or destroy the interest features for which the site has been notified
 - 3.4.7. Brackland Rough SSSI: this site is downstream of Sunnica West Site B and no evidence has currently been provided that there will be no hydrological impacts to this site.
 - 3.4.8. Devil's Dyke SAC and Rex Graham Reserve SAC: further assessment is required to rule out air pollution impacts on these sites from the project in-combination with other plans and projects.
 - 3.4.9. Havacre Meadows and Deal Nook County Wildlife Site: it is not currently clear how impacts to this site will be avoided during the construction of the grid connection route.
 - 3.4.10. Biodiversity Net Gain: calculations have been carried out using the Biodiversity Metric 3.0 but the calculation does not distinguish between mitigation for impacts to statutory designated sites, priority habitats and other mitigation for farmland birds, badger, scarce arable plants and other protected species which should be excluded from biodiversity net gain calculations using the metric.
- 3.5. Natural England advises that, if approved, the project must be subject to all necessary and appropriate requirements which ensure that unacceptable environmental impacts either do not occur or are sufficiently mitigated

4. Detailed advice about the project including further evidence or assessment work required

4.1. Soils and agricultural land use

- 4.1.1. Soil is a finite resource which plays an essential role within sustainable ecosystems, performing an array of functions supporting a range of ecosystem services, including storage of carbon, the infiltration and transport of water, nutrient cycling, and provision of food. It is recognised that a proportion of the agricultural land will experience temporary land loss. In order to both retain the long-term potential of this land and to safeguard all soil resources as part of the overall sustainability of the whole development, it is important that the soil is able to retain as many of its many important functions and services (ecosystem services) as possible through careful soil management and appropriate soil use, with consideration on how any adverse impacts on soils can be avoided or minimised.
- 4.1.2. Based on the information provided with the application documents, it appears that the proposed development Order Limits comprises 1113.3 ha. According to Table 12-20 (Chapter 12: Socio-Economics and Land-Use of the Environmental Statement (ES)), the Sunnica West Sites A and B; and Sunnica East Sites A and B comprise 981 ha of agricultural land, including 37.3 ha classified as 'best and most versatile' (BMV) (Grades 1, 2 and 3a in the Agricultural Land Classification (ALC) system).
- 4.1.3. We understand that, of the 37.3 ha of BMV land (of which 37.3 ha is Subgrade 3a) which will be affected by the proposals during construction (2 years) and operation (40 years), approximately 31.4 ha will house solar infrastructure (i.e., solar panels) and the remaining 5.9 ha will form part of the native grassland (Para 12.8.27; Chapter 12). There will also be the permanent land take arising as a result of Burwell National Grid Substation Extension Site. We consider that the proposed development, if temporary as described, is unlikely to lead to significant permanent loss of BMV agricultural land, as a resource for future generations.
- 4.1.4. However, the loss of BMV land can only be considered temporary if it is returned to its former agricultural use at the end of its 40 year operational life and it can be restored back to its original agricultural land classification. Given some of the development proposed (e.g. mixing topsoil with chalk in the creation of replacement grassland (See Appendix 10I) or compound areas involving the application of concrete etc) this is somewhat doubtful and greater justification is required as to how the land will be restored back to its original quality post development.
- 4.1.5. The agricultural land and soils assessment is presented in "Chapter 12 Socio-Economics and Land Use" of the ES. The agriculture and soils assessment is based on information included within Appendix 12B "Soils and Agricultural Land Baseline Report", which provided site specific soils information for the Sunnica West Sites A and B; and Sunnica East Sites A and B.
- 4.1.6. ***Chapter 12: Socio-Economics and Land Use and Appendix 12B: ALC Methodology Approach and Results***

Having reviewed the ALC survey approach and methodologies provided within Appendix 12B, we have the following comments:

- 4.1.6.1. The authors follow published ALC methodology (MAFF, 1988) and utilise existing 'Post-1988' ALC surveys. However, it is noted that the Reading Agricultural Consultants (RAC) survey methodology used an overall observation density of one sample point per 2ha. The land surveyed by RAC within the Sunnica Order

limits (approximately 2 ha) should have been resurveyed to provide a total survey density of 1 observation per hectare.

- 4.1.6.2. Given the extent of the Order limits, the consideration and use of multiple climatological data points across the site is welcomed.
- 4.1.6.3. The applicant provides clear justification for correcting the MAFF 'Post-1988' survey data which covers the site, to remove the consideration for irrigation, which is no longer a consideration in the ALC assessment (Para 12.4.21, Chapter 12).
- 4.1.6.4. The ALC survey data is incomplete:
 - 4.1.6.4.1. The Grid Connection routes were not considered as part of the assessment. An ALC survey should be undertaken along the routes of the proposed cabling to inform soil handling and to verify soil restoration to pre-construction agricultural land quality (i.e. baseline ALC Grade). This information should be presented in the Soil Management Plan (SMP).
 - 4.1.6.4.2. We acknowledge that a soil survey will be undertaken at the Burwell National Grid Substation Extension Site, with information feeding into the SMP.
 - 4.1.6.4.3. Where information on soil nutrient status and pH has not already been collected, this should also be carried out.
- 4.1.6.5. Having considered the agricultural land and soils assessment and conclusions provided within Chapter 12 and given the temporary nature of the development '*at the end of the duration of consent (an expected 40 years), following decommissioning the arable land can revert to its current cropping regime*' (Paragraph 5.9.1, Appendix 12B); coupled with the embedded mitigation measures to be set out in a SMP, we broadly agree with the general conclusions that long term effects on agricultural land and soils would be negligible and non-significant provided the development is limited to a maximum of 40 years and undertaken with steel piles and limited ground disturbance.
- 4.1.6.6. It is noted that the installation method of the solar panels is not yet confirmed. Where solar panels are secured to the ground by steel piles there is typically limited soil disturbance, and the applicants assessment presented in section 12.4 of Chapter 12 is deemed appropriate; however, where pillars are fixed to concrete foundations, or pillars set in concrete are utilised (Table 3-2, Chapter 3: Scheme Description), the soil disturbance will be greater. This uncertainty in the methodology, should be reflected in the soil assessment.
- 4.1.6.7. We suggest a commitment is required to ensure low disturbance methods are used to install the solar panel infrastructure (i.e. steel piles with no use of concrete), in order to minimise soil disturbance and that this is secured in the DCO.
- 4.1.6.8. We also suggest a commitment is required to ensure that at the end of the duration of consent (40 years), following decommissioning, the arable land is reverted to its current ALC grade and cropping regime. This would not preclude retention of the biodiversity enhancement areas, as long as the current soil profile is retained.

- 4.1.6.9. We have the following additional comments on the Agricultural Land and Soils assessment:
- 4.1.6.9.1. The sensitivity of the light soils, according to Table 12-6, Chapter 12 should be very low, however they are described as low in Paragraphs 12.8.28 and 12.8.79 of Chapter 12. Although it is acknowledged this would not result in a change in significance.
 - 4.1.6.9.2. The conclusion that there will be a moderate beneficial impact on the soil resource during operation should be supported by evidence (Paragraph 12.8.53, Chapter 12; and Paragraph 5.6.5, Appendix 12B)
 - 4.1.6.9.3. The assessment of impact on the soil resource assumes that there is only a marginal loss of soil resource (Paragraph 12.8.28, Chapter 12) and no loss of agricultural land (Paragraph 12.8.27), however in Appendix 16C (Framework Construction Environmental Management Plan), Table 3-11 states that '*All soil to be reused on-site or disposed of off-site*' (emphasis added). All soil should be reused on site, either for reuse during operation or following decommissioning for restoration purposes. No soil should be disposed of. Furthermore, Chapter 8 (Paragraph 8.10.5) states that '*The area of acid grassland to be lost will be subject to a translocation, with the turf and top soil stripped and translocated to a suitable area within the mitigation zone in Sunnica East Site B.*' Going on to state, '*the area of acid grassland to be lost will be subject to a translocation, with the turf and top soil stripped and translocated to a suitable area within the mitigation zone in Sunnica East Site B*' (emphasis added).
 - 4.1.6.9.4. There is contradiction in the extent of soil disturbance. Paragraph 12.7.3, Chapter 12) states that soil handling will '*conserve both soil volume and functional capacity for beneficial reuse, from the small area where soil will be stripped*' (emphasis added). However, Paragraph 10.3.9, Chapter 10 states that '*Ground preparation for areas of solar panels and associated infrastructure will consist of topsoil stripping and storage, localised ground levelling*' and Appendix 11I, Paragraph 1.7.18 states that '*The chalk is to be mixed with topsoil stripped from elsewhere within the Scheme at a ratio of three parts chalk to one part topsoil and the topsoil mix will be spread back across the new areas as appropriate*' (emphasis added).
 - 4.1.6.9.5. There would be a significant loss of agricultural production during the lifetime of the development which should be considered in the assessment.
 - 4.1.6.9.6. The Burwell National Grid Substation Extension Site will undergo permanent development, therefore the soil stripped from the site should be re-used on site if possible, where soil handling and reuse should be described in the SMP.
- 4.1.6.10. It is welcomed that a SMP will be produced at the detailed design stage and secured through the Construction Environmental Management Plan (CEMP) and Decommissioning Environmental Management Plan (DEMP) (Para 12.4.13, Chapter 12). Clarification should be provided in the SMP on the extent of soil movement, storage and reuse across the site during construction, operation and

decommissioning, and the assessment of effects (on agricultural land and soil resources) updated should the magnitude of effects alter as a result.

- 4.1.6.11. We advise that habitat creation is tailored to the soil resource present on site, using data presented in Appendix 12B, avoiding the need for soil translocation and mixing as far as practicable.
- 4.1.6.12. We advise that if the development proceeds, the developer uses an appropriately experienced soil specialist to advise on, and supervise, soil handling, including identifying when soils are dry enough to be handled and how to make the best use of the different soils on site. All soils should only be handled in a dry and friable condition, and it is expected that soil handling will be confined to the drier summer period to minimise risk of soil damage. Soil handling methods should normally be as specified as in the [Defra Code of Practice for the Sustainable Use of Soils on Construction Sites](#)² (including accompanying Toolbox Talks).

4.1.7. **Chapter 3 Scheme Description**

- 4.1.7.1. Paragraph 3.6.53 states that a Framework CEMP has been prepared to accompany the ES, stating '*The aim of the CEMP is to reduce nuisance impacts from: f. soil removal*'. The CEMP should aim to reduce impacts from soil disturbance, as no soil should be taken off site as per Paragraph 12.7.3, Chapter 12.
- 4.1.7.2. Paragraph 3.8.6 indicates that only part of the land within the Order limits will be returned to its original use after decommissioning, with areas of habitat and biodiversity mitigation and enhancement to be left in-situ, however this contradicts Paragraph 12.11.16, Chapter 12, which states that the land within the site can be returned to arable management. Therefore, the Applicant should provide simple breakdowns of the areas of temporary development and permanent habitat creation / development and associated ALC Grade in the summary. For example, total agricultural area impacted by scheme (split by scheme component and by ALC grade), total area of BMV agricultural land (split by component) and total BMV agricultural area permanently and temporarily required for the development (split by component).
- 4.1.7.3. As stated above, we suggest a commitment is required to ensure that at the end of the duration of consent (40 years), following decommissioning, the arable land is reverted to its current ALC grade and cropping regime. This would not preclude retention of the biodiversity enhancement areas, as long as the current soil profile is retained.

4.1.8. **Appendix 10I: Landscape and Ecology Management Plan**

- 4.1.8.1. Paragraph 12.4.42, Chapter 12 states that '*low clay content can increase the vulnerability of exposed soil material to erosion from rainfall*'. However, Chapter 8 and Appendix 10I proposes '*The management of dry acid grassland would aim to maintain a sward height of 1 to 5 cm with approximately 15% bare ground*'. We acknowledge that bare ground is a habitat requirement for Stone Curlew.

² <https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites>

- 4.1.8.2. We welcome the use of natural regeneration or from seed collection from the grasslands identified within the Order limits (Paragraph 1.7.14) as these species will be suited to the soils on site.
- 4.1.8.3. Paragraph 1.7.16: '*The land across the Order limits is mainly arable and the soil is not likely to meet nutrient requirements.*' The soil nutrient status should be determined across the Sites and inform the suitable seed mixes, as suggested in Paragraph 1.7.28.

4.1.9. **Appendix 16C Framework Construction Environmental Management Plan (CEMP)**

- 4.1.9.1. There is no consideration for soil stripping and storage during construction and operation to facilitate restoration during decommissioning that would apply to limited areas of the Site.
- 4.1.9.2. The areas requiring topsoil stripping should be identified and location of soil storage presented in the SMP, including volumes and soil types.
- 4.1.9.3. Reference to the Defra Construction Code in Table 3-7 is welcomed.
- 4.1.9.4. The CEMP and associated SMP needs to be clearer that the aim is for BMV agricultural land to be returned to its original quality and all soils to be suitable for the planned end use. For example, this could be actioned by a target specification for the restored soils according to location and soil types, end use and required ALC grade. The areas of ALC Subgrade 3a (BMV agricultural land) across the site (Figures 12-2 and 12-3) are largely proposed to remain intact and under solar panels (Figure 2.2 Works Plan). There should be commitments that this land will be returned to agricultural use at the end of operation life (maximum 40 years) and the agricultural land quality retained as Subgrade 3a.

4.1.10. **Appendix 16E Framework Decommissioning Environmental Management Plan (DEMP)**

- 4.1.10.1. Table 3-3: It is not clear in the DEMP, whether '*Habitats to be temporarily lost or damaged during decommissioning will be fully reinstated on a like-for-like basis at the same location on completion of the works*' refers to habitat created during construction, or the original pre-construction habitats.
- 4.1.10.2. Table 3-7: Impacts on soil. Reference to the Defra Construction Code and mitigation measures to conserve the soil resource on site is welcomed. The DEMP should also include restoration criteria to ensure restoration of land to the baseline ALC grade as presented in Appendix 12B.
- 4.1.10.3. We suggest a requirement that a site reinstatement plan is prepared and submitted prior to panels being removed, with a commitment that the BMV land is returned to its former agricultural use at the end of its 40 year operational life.

4.2. **Stone Curlew and offsetting habitat in Sunnica East Site**

- 4.2.1. The scheme will have impacts on Stone Curlew, a ground nesting bird that lives in dry, open places with very short vegetation or bare / stony ground. Stone Curlews are a qualifying feature of Breckland SPA and are also protected under Schedule 1 of Wildlife and Countryside Act 1981 and are a priority species listed under Section 41 of the 2006 Natural Environment and Rural Communities Act.

- 4.2.2. The proposed development will directly impact the birds resulting in the loss of nesting and foraging habitat identified within the Order limits. Additional indirect impacts on Stone Curlew outside of the Order limits are likely due to the high sensitivity of Stone Curlews to disturbance. Although there is no specific research which interrogates the impact of solar energy farms on Stone Curlew, the best available evidence suggests the birds can be disturbed up to 500m away³, therefore the impacts of the development are likely to extend beyond the Order limits.
- 4.2.3. Table B within Appendix 8I: Annex D of the ES states there were 5 breeding territories of Stone Curlew, 2 identified at Sunnica East Site A and 3 at Sunnica East Site B. This followed surveys in 2019, 2020 and 2021.
- 4.2.4. Natural England's advice for developments that may directly or indirectly impact Stone Curlew is that a minimum of three years complete surveying is carried out, following the RSPBs Stone Curlew monitoring protocol, of all suitable habitat capable of supporting Stone Curlew where disturbance impacts may occur. Three years of surveying should account for annual spatial variations in nest locations due to arable crop rotations. We note from the Appendix 8I Report of Surveys for Breeding Birds of the ES that complete surveys following this protocol were only carried out in 2019 whilst surveys in 2020 and 2021 were for a shorter duration and did not include areas outside the Order limits.
- 4.2.5. We therefore advise that the confirmed number of 5 pairs should be considered the minimum number of Stone Curlews likely to be impacted by this development. In the absence of complete surveys, further assessment should be made of the maximum number of pairs that could be present and impacted by the project, based on the surveys carried out in addition to the extent of suitable habitat available outside of the complete survey area, on a precautionary worst-case basis. It is this figure that should inform the suitability of the extent required of offsetting habitat.
- 4.2.6. The Stone Curlews identified in the surveys were located between 3.6 and 7.5km from Breckland SPA. They are therefore outside of both the 1.5km constraint zone around those parts of the SPA where Stone Curlew are a qualifying feature (the "primary buffer") and outside of the 1.5km constraint zone around those 1km grid squares within 3km of the SPA boundary that held 5 or more nesting attempts between 2011 and 2015 (the "secondary buffer").
- 4.2.7. An appropriate assessment of the proposal has been made Appendix 8M: Habitats Regulations Assessment: Report to Inform an Appropriate Assessment) in accordance with regulation 63 of the Conservation of Species and Habitats Regulations 2017 (as amended). The appropriate assessment concludes that the proposal will not result in adverse effects on the integrity of Breckland SPA subject to offsetting measures being secured. Natural England advises that we concur with the assessment conclusions but advises that additional clarification on the provision and management of offsetting habitat is required.
- 4.2.8. The Chapter 8: Ecology and Nature Conservation report of the ES states the scheme will result in the creation of 108 hectares of foraging habitat for Stone Curlew and creation of a maximum of ten 2ha nesting / foraging plots in advance of the Stone-curlew breeding season to offset the loss of Stone-Curlew habitat as a result of the scheme. This is described as Work No.10 in the Draft Development Consent Order.

³ Taylor, E.C., Green, R.E. & Perrins, J. (2007) "Stone-curlews *Burhinus oedicanus* and recreational disturbance: developing a management tool for access". *Ibis*, 149, pp.37-44.

- 4.2.9. We welcome the proposal to create habitat for Stone Curlew to offset the direct impacts to Stone Curlew caused by the loss of arable land for nesting. However, the breeding bird surveys indicated a greater number and higher density of Stone Curlew pairs recorded at East site B compared to East site A but more offsetting habitat is proposed at site A. Further clarification of this is requested.
- 4.2.10. Paragraphs 1.7.7 and Table C1 in Appendix 10I: Landscape and Ecology Management Plan refer to land within parcels E12 and E13 providing opportunities for Stone Curlew mitigation and being managed for them. Further clarification is requested on whether these areas are included within the 108 hectares of offsetting habitat. Sunnica East Parameter Plan 3-1 shows both of these areas as being covered by the solar PV array so it is unclear how these areas will be capable of supporting Stone Curlew. If some of the offsetting habitat at site B is proposed to be within and / or under the arrays it is unclear whether sufficient habitat will be provided at this site
- 4.2.11. Natural England's advice for siting of land for offsetting impacts to Stone Curlew includes a requirement that the habitat should not be within 1.5km of residential settlements, within 500m of any buildings or smaller roads and within 400m of any public right of way, permissive path or area used for recreation. As Stone Curlew have been observed nesting within the Order limits within these distances, the location of the offsetting habitat does not meet these criteria as it has been sited to replicate the conditions the birds are currently using. Whilst we accept this rationale, we are concerned that behaviour of walkers and dogs next to conservation grassland may create more disturbance compared to activities next to active arable fields and therefore that not all of the habitat proposed for Stone Curlew will be suitable for them to utilise. We therefore seek additional information on the area of habitat that will be functionally suitable for Stone Curlew and how disturbance will be minimised such as fencing, screening or other methods.
- 4.2.12. The documents state that a maximum of ten 2ha Stone Curlew plots will be created. Whilst we welcome that these would be provided for the life of the development, further clarification is required on why it is stated a "maximum" of ten rather than a minimum. No details are also given as to where these will be located and whether these will be retained in the same location each year or will be rotated to different locations. We advise that they should be located a minimum of 500m from footpaths and other areas where they could be subject to disturbance.
- 4.2.13. Further details are required to determine how the offsetting land will be managed to ensure it is ecologically functional for Stone Curlew in advance of construction starting, and its on-going management for the life of the development.
- 4.2.14. In order to create habitat with a low sward height, suitable for Stone Curlew, the land used to create the new habitats will require low nutrient conditions in the soil. The proposals for Sunnica Site East A are for a chalk seed mix to be sowed, whilst in Sunnica East site B there is proposed to be natural regeneration of acid grassland (Table C1, Appendix 10I). As it is likely that nutrient levels in former arable fields will be high, we request clarification in the form of a nutrient management plan of how suitable nutrient levels will be reached, ensuring that the offsetting habitat is fully ecologically established and functional for Stone Curlew in advance of any construction work starting on the solar energy farm.

The Natural England document "Sourcing and Managing Offsetting land for Stone Curlew" which is referenced by the applicant is a useful source of information. For further

information, we refer the applicant to Natural England's technical information documents [TIN035](#)⁴, [TIN036](#)⁵ and [TIN066](#)⁶.

- 4.2.15. Please note our comments in paragraph 4.1.6.11 above that we advise that habitat creation is tailored to the soil resource present on site, avoiding the need for soil translocation and mixing as far as practicable.
- 4.2.16. Please note too that there is contradictory information presented in Appendix 10I because in Paragraph 1.7.7 it is stated that East site B will be chalk, not acid, grassland.
- 4.2.17. We welcome proposals to manage the habitat to maintain a short sward suitable for Stone Curlew by conservation grazing by sheep. It is unclear whether grazing is only proposed for non-breeding months (Table C1, Appendix 10I) or includes the breeding season (Paragraph 8.8.7, Chapter 8) and whether this applies for all areas of Works No.10. Further clarification is requested.
- 4.2.18. The Offsetting Habitat Provision for Stone-Curlew Specification of the ES states that short term management of grassland within ECO2 would involve mowing between two to four times during the growing season. Mowing is not a recommended management technique during the Stone Curlew breeding season. Therefore, further clarification of this is required to determine how disturbance to Stone Curlews would be avoided.
- 4.2.19. Appendix 16C: Framework Construction Environmental Management Plan – We welcome that the replacement habitat and plots will be available in the breeding season prior to construction commencing. Whilst we also welcome that construction will be phased so that areas within 500m of the new habitat provisions are developed outside the Stone Curlew breeding season of March to October no phasing plan has been provided. Details of the phasing of construction are required to demonstrate how 500m distances from Stone Curlew habitat will be maintained throughout the construction phase.
- 4.2.20. Stone Curlew nest locations vary between and within breeding seasons depending on ground conditions and disturbance. There may therefore be nests outside of the areas of new Stone Curlew habitat during the construction phase, either within the Order limits or close to it. The CEMP must therefore include provisions for these circumstances, ensuring that no construction takes place within 500m of active nests both within and outside the Order limits.
- 4.2.21. Appendix 16F: Framework Operational Environmental Management Plan – The operational environmental management plan (OEMP) should apply for the duration of the life of the proposed development and must be secured in the DCO.
- 4.2.22. We welcome the monitoring of Stone Curlew offsetting areas, however this should continue for the lifetime of the development including the decommissioning period rather than the current proposal of annual monitoring for 5 years then bi-annually until year 10 of operation. We agree that the monitoring should include both the occupancy of the offsetting habitats and the condition of these habitats with annual monitoring reports submitted for review. In addition, we request that the monitoring covers the whole extent of the Sunnica East sites and birds within 500m of it to determine the long-term impact of the energy farm on the behaviour of other birds within 500m of the site, and whether other nests have been displaced from this buffer zone. This would then inform whether the offsetting land has been effective or whether additional measures need to be undertaken.

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- 4.2.23. It is currently unclear on what the measures of success are for the offsetting habitat. Natural England requests clarification in addition to contingency measures if these success measures are not met. These should be secured within a suitable report within the DCO. Measures could include (but are not limited to) increasing screening of the energy farm, provision of additional offsetting land if the monitoring established that there has been a pre-determined net decrease in Stone Curlew in and around the site or a contribution of Stone Curlew habitat or management offsite.
- 4.2.24. The OEMP should also include provisions for routine maintenance activities in the energy farm during the Stone Curlew nesting season. As Stone Curlews are unlikely to nest in the same location each year (or for different broods in the same year), workers engaged in maintenance work should liaise with monitoring staff beforehand to ensure operations are not carried out within 500m of active nest locations.
- 4.2.25. There is a lack of evidence in the public domain to ascertain whether Stone Curlew avoid nesting or foraging near solar panels. Monitoring for the life of the project should inform an annual report into the impact of the development on Stone Curlew on and around the site and we would welcome receiving these reports.
- 4.2.26. Appendix 16E: Framework Decommissioning Environmental Management Plan – It is unclear whether or not the Stone Curlew habitat will be retained for the decommissioning period and thereafter. For decommissioning we require clarification of proposed mitigation measures, including the exclusion of works within 500m of nest sites. We would welcome the long-term retention of the Stone Curlew habitat beyond decommissioning of the site, and associated long term monitoring.

4.3. Chippenham Fen and offsetting habitat in Sunnica West Site

- 4.3.1. Natural England concur with the conclusion that of adverse effect on the integrity of Chippenham Fen Ramsar site and Fenland SAC in relation to impacts from hydrology and air quality, and impacts to aquatic invertebrates.
- 4.3.2. We welcome that temporary construction site lighting will be designed to minimise artificial light spill from the site and that the use of motion detection security lighting to avoid permanent lighting will be embedded in the Scheme design with inward distribution of light to avoid light spill on to existing boundary features. However, due to the proximity of the Order limits to Chippenham Fen we request further information to confirm the conclusion of no adverse effect on the integrity of the site with regards to impacts from noise pollution and light spill.
- 4.3.3. We request that the applicant provide noise and light spill contour maps and modelling data for sensitive habitats within Chippenham Fen, to validate the no adverse effect conclusions with regard to changes to baseline levels.
- 4.3.4. We recommend that details of an appropriate lighting strategy (aligned with [Bat Conservation Trust guidance](#)⁷) are agreed with Natural England. This will ensure impacts to bats and other sensitive species are minimised as far as possible and that these are included in the construction, operational and decommissioning environmental management plans across the whole of the Order limits.
- 4.3.5. We welcome the proposals for creation of biodiverse habitat at Sunnica West Sites A and B. The inclusion of 26.5ha of arable reversion to marshy grassland within West Site B,

along with the rewilding through natural regeneration of an undeveloped buffer adjacent Chippenham Fen and the River Snail at Sunnica West Site B, is very welcome. Due to the location of these proposed habitats adjacent to Chippenham Fen, which is managed by Natural England as a National Nature Reserve, we would request input to the detailed habitat creation strategy with regard to design, habitat creation/establishment methodology and long-term management. All details of habitat creation and long-term management should be agreed with Natural England through the Environmental Management Plans and secured in the DCO.

- 4.3.6. We agree with the applicant's conclusions that the proposed development will not damage or destroy the interest features for which Snailwell Meadows SSSI been notified as the proposed development is upstream of it.
- 4.3.7. Brackland Rough SSSI is downstream of Sunnica West Site B and further evidence is required that there will be no hydrological impacts to this site.

4.4. Priority Habitats and Protected Species

- 4.4.1. Priority habitats and species included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006 are, in the Secretary of State's opinion, of principal national importance for the purpose of conserving biodiversity. Lists of priority habitats and species can be found [here](#)⁸. The avoidance-mitigation-compensation hierarchy should be clearly followed with respect to these habitats and species. A number of priority habitats have been identified within the Order limits (see Paragraph 2.4).
- 4.4.2. We welcome the proposals to manage biodiverse grassland suitable for breeding farmland birds such as Lapwing and Skylark throughout the Order limits, which will also provide landscape scale benefits for pollinators through increased habitat provision and connectivity.
- 4.4.3. However, although measures have been proposed in detail to offset impacts to Stone Curlews, we seek further clarification of measures to offset other bird species listed in Schedule 1 of the Wildlife and Countryside Act 1981 that will be impacted by this development (including Barn Owl, Hobby, Common Quail, Little Ringed Plover), along with impacts to the wider breeding and wintering bird assemblages to ensure no adverse effects on these species from the development. Whilst it is stated that the proposed grassland creation will benefit some of these species, as different habitat management is required for different species it is unclear how potential adverse impacts will be avoided. We request that the applicant provides further information to clarify this point.
- 4.4.4. From the information received to date, a licence will be required for works relating to badgers and bats. Natural England's [standing advice](#)⁹ provides guidance on how protected species should be dealt with in the planning system including species specific advice. The advice provided in this letter is based on the information currently available to us and is subject to any material changes in circumstances, including adjustments to the proposals or further information on the protected species such as pre-construction surveys.
- 4.4.5. Natural England encourages the applicant to take advantage of the Discretionary Advice Service (DAS) which is offered to provide non-statutory advice related to development proposals and the Pre-submission Screening Service (PSS) for advice on proposals that

⁸<http://webarchive.nationalarchives.gov.uk/20140711133551/http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>

⁹ <https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals>

will require a protected species mitigation licence. These services can help to resolve outstanding environmental matters, particularly relating to designated sites and protected species, early on in the process. Advice from Natural England under DAS, early on in the process, can help to scope out or refine protected species issues well before a draft wildlife licence application is prepared. PSS provides early advice on all [the three licensing tests](#)¹⁰ (in relation to European protected species), before a Development Consent Order is granted. This service also extends to other protected species (such as badger and water vole), protected by domestic wildlife legislation.

- 4.4.6. This early assessment provides confidence, where required, that Natural England, as the statutory licensing authority, has considered the appropriate issues relating to protected species. In order to do this, Natural England will conduct a review, based on a full draft licence application. Following the review of the draft licence application, Natural England will either: provide a Letter of No Impediment (LONI), explaining that based on the information reviewed to date, that it sees no impediment to a licence being granted in the future should the DCO be issued; or if there are licensing issues to address, these will be set out in writing for the applicant to resolve.

4.5. Air quality assessment

- 4.5.1. Chapter 3: Scheme Description states that during the construction phase there will be an average of 1242 personal transportation movements across the sites for solar PV construction in addition to HGV movements for construction, and transportation movements for the substations and cable route. Emissions from vehicles may impact habitats up to 200m from a road. To the north of the Order limits Breckland SPA and Rex Graham Reserve SAC are located adjacent to the A11. To the south, Devil's Dyke SAC is located adjacent to the A14. These sites have qualifying features that are sensitive to air pollution. Both roads are expected to be on the Affected Road Network although a plan of this was not provided within the application documents.
- 4.5.2. Appendix 8M Habitats Regulations Assessment: Report to Inform an Appropriate Assessment concludes for these sites that likely significant effects of habitat degradation and contamination, will not impact on sensitive habitats and species and therefore they are screened out from Appropriate Assessment. Natural England advises that there is not currently sufficient evidence submitted to conclude there will be no likely significant effect on these sites from air pollution as a result of road vehicles during the construction phase because no in-combination air quality assessment has been carried out. We advise the applicant to refer to our guidance document NEA001¹¹ and to ensure an in-combination assessment is completed.

4.6. Biodiversity Net Gain

- 4.6.1. We welcome the commitment to provide measurable Biodiversity Net Gain (BNG) from this project. Measurable BNG would have a positive effect on the natural environment and is in accordance with the principles set out in Paragraphs 174, 179 and 180 of the National Planning Policy Framework.
- 4.6.2. However, BNG is not a replacement for best ecological practice of following the avoid-mitigate-compensate hierarchy with respect to existing biodiversity. It does not replace existing environmental legislation or policy requirements including existing requirements for dealing with direct or indirect impacts on statutory designated sites, ancient woodland and other irreplaceable habitats. Offsetting for these should be secured in perpetuity.

■ [REDACTED]
■ [REDACTED]
■ [REDACTED]

- 4.6.3. The Biodiversity Net Gain Assessment does not distinguish between offsetting habitat delivered for Stone Curlews, priority habitats and other mitigation for farmland birds, badger, scarce arable plants and other protected species which should be excluded from BNG calculations using the Biodiversity Metric v3.0. Further details are therefore required to be provided, including plans showing the location of habitat provided as these offsetting measures and habitat provided for BNG.
- 4.6.4. The BNG Assessment should also demonstrate the effect of the decommissioning on the long-term impact on biodiversity. Natural England would welcome a commitment to BNG beyond life of development, in addition to long term retention of habitats provided for offsetting, and request that details are submitted within the Biodiversity Net Gain Assessment document.

4.7. Havacre Meadows and Deal Nook County Wildlife Site

- 4.7.1. Although Natural England does not maintain detailed information on local wildlife sites, we note that proposed grid connection route A2 will go through Havacre Meadows and Deal Nook County Wildlife Site, which supports semi-improved grassland, woodland, scrub and open water. It is stated within Volume 6 Environmental Statement 6.1 Chapter 8: Ecology and Nature Conservation that “construction of the Scheme will not directly impact on habitat within this site and measures to ensure incursion during construction to designated sites will be put in place, e.g., security fencing and buffer zones early on in the construction process. The construction of the Scheme for the Grid Connection will utilise boring, micro-tunnelling or moling methods and as such, will not directly impact habitats within this CWS, through loss of habitat”. It is unclear exactly how potential damage to the site will be avoided so a detailed plan should be included within the Construction Environmental Management Plan. The Framework Construction Environmental Management Plan currently only states that a “30m buffer zone will be applied to the site”. Further details and clarification is required of this.

4.8. Access / public rights of way

- 4.8.1. The Overarching National Policy Statement for Energy (EN-1) states that applicants should “take appropriate mitigation measures to address adverse effects on ... rights of way”. Paragraphs 100 and 174 of the National Planning Policy Framework (NPPF) highlight the importance of public rights of way and access. Development should consider potential impacts on access land, common land, rights of way and coastal access routes in the vicinity of the development. Appropriate mitigation measures should be incorporated for any adverse impacts.
- 4.8.2. We welcome that temporary diversions of public rights of way during the construction phase will be put in place and monitored to ensure they are suitable and well maintained for use and that new permissive paths will be created for the life of the development. However, we are concerned that diversions are proposed of 1km and greater in length which will include routes also used by traffic.

5. Matters that must be secured by requirements in the DCO

5.1. Soils

- 5.1.1. Installation of solar panel infrastructure should be using low disturbance methods (i.e. steel piles with no use of concrete) in order to minimise soil disturbance

5.2. Stone Curlew

- 5.2.1. We advise that the DCO should include the requirement for the annual monitoring and mitigation strategy for the entire life of the project from start of construction to completion of decommissioning. This should include a continuous study of whether or not the offsetting Stone Curlew habitat is successful, seeking advice from Natural England and other conservation bodies as appropriate. If the Stone Curlew population has been negatively impacted by a pre-determined number of pairs, a mechanism must be in place to secure appropriate remedial action during the lifetime of the scheme.

5.3. Biodiversity Net Gain

- 5.3.1. Natural England notes that the applicant's commitment to securing a minimum of 10% Biodiversity Net Gain is reflected in Schedule 2, Paragraph 8 of the draft DCO. Natural England therefore advises that this requirement should be secured by a suitably worded requirement in the DCO, if the project is approved, for a minimum period of the life of the development, including the decommissioning.

5.4. Lighting

- 5.4.1. The DCO should contain a commitment for site lighting to minimise artificial light spill outside of the Order limits

- 5.5. Subject to the applicant's response to the other items discussed in this letter, there may be further matters that will need to be secured appropriately through the DOC requirements. We will provide further comments through the examination process

6. Comments on the draft DCO.

- 6.1. Although Natural England has not yet completed its review of the draft DCO in detail, we provide the following comments in relation to issues raised above. We advise that some changes may be required to be made to ensure appropriate nature conservation and biodiversity controls are secured and that net gain provision is appropriately provided for.

6.2. Stone Curlew

- 6.2.1. Natural England welcomes that the Draft DCO includes requirement 10: *"1.) No part of Work Nos. 1A, 1B, 2A, 2B, 3A, 3B, 6A, 6B, 7A, 7B, 8A, 8B and 10 may commence until the undertaker has provided the offsetting habitat provision for stone curlews"*. However, we seek clarification as to why this requirement doesn't include Work Nos. 4 and 9.
- 6.2.2. In addition, we request a commitment to the retention of Stone Curlew and other biodiversity offsetting habitat as part of the decommissioning stage.

6.3. Discharge of Water

6.3.1. Part 4 Paragraph 14 states that “*undertaker may use any watercourse or any public sewer or drain for the drainage of water*”. We require clarification that there will be no contamination of watercourses, hydrologically linked wildlife sites and associated species.

6.4. Felling and lopping of trees

6.4.1. Part 6 Paragraph 36 states that “*the undertaker may fell or lop any tree or shrub near any part of the authorised development or cut back its roots, if it reasonably believes it to be necessary to do so*”. We advise that any works on trees must include pre-commencement bat surveys, and that no works must precede until a licence is granted, if required.

7. Additional comments

7.1. We note that it is frequently stated within the Environmental Statement that there is “no impact pathway” to designated sites. In many instances this is incorrect and there is a pathway for impact, but proposed mitigation measures will avoid or reduce impacts to a level that can be considered not significant.

7.2. Further information on potential environmental benefits at solar energy farms

7.2.1. For additional information on delivering environmental benefits at solar energy farms we advise the applicant to refer to Natural England’s document [Solar parks: maximising environmental benefits - TIN101](#)¹², which provides a summary of advice about their siting, their potential impacts and mitigation requirements for the safeguarding of the natural environment and the BRE publication [Biodiversity Guidance for Solar Developments](#)¹³.

7.3. Research

7.3.1. Given this is one of the largest scale solar energy farms in the UK to date, we advise that, if consent is granted for this development, all monitoring data shall be fed into the public domain and this development should provide evidence to inform the design of other large scale solar projects across the UK. It should be prepared to act as a site for research, for subjects including:

7.3.1.1. Long term change and development of habitats and flora under and around solar panels

7.3.1.2. Long term change and development of behaviour of fauna on, under and around panels including Stone Curlew and aquatic insects

7.3.1.3. Bird collision risk with panels

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17 March 2022

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¹² <https://webarchive.nationalarchives.gov.uk/ukgwa/20150902172007/http://publications.naturalengland.org.uk/publication/32027>

