The Planning Inspectorate
Yr Arolygiaeth Gynllunio

REPORT on the IMPLICATIONS for EUROPEAN SITES

Proposed Sunnica Energy Farm

An Examining Authority report prepared with the support of the Environmental Services Team

Planning Inspectorate Reference: EN010106

13 February 2023

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TABLE OF CONTENTS

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1 INTRODUCTION

1.0 Background

1.0.0 Sunnica Ltd (the Applicant) has applied to the Secretary of State for a Development Consent Order (DCO) under section 37 of the Planning Act 2008 (PA2008) for the proposed Sunnica Energy Farm (the Application). The Secretary of State has appointed an Examining Authority (ExA) to conduct an Examination of the application, to report its findings and conclusions, and to make a recommendation to the Secretary of State as to the decision to be made on the Application.

1.0.1 The relevant Secretary of State is the competent authority for the purposes of the Habitats Directive[1] and the Habitats Regulations[2] for applications submitted under the PA2008 regime. The findings and conclusions on nature conservation issues reported by the ExA will assist the Secretary of State in performing their duties under the Habitats Regulations.

1.0.2 This RIES compiles, documents and signposts information provided within the DCO application, and the information submitted throughout the examination by both the Applicant and Interested Parties (IPs), including those documents submitted by 30 January 2023 for Deadline 6 in relation to potential effects to European Sites[3]. It is not a standalone document and should be read in conjunction with the Examination documents referred to. Where document references are presented in square brackets [] in the text of this RIES, that reference can be found in the Examination library published on the National Infrastructure Planning website at the following link:

Sunnica Energy Farm Examination Library

1.0.3 It is issued to ensure that Interested Parties including the statutory nature conservation bodies: Joint Nature Conservation Committee (JNCC)/ Natural England (NE), are consulted formally on Habitats Regulations matters. This process may be relied on by the Secretary of State for the purposes of Regulation 63(3) of the Habitats Regulations. Following consultation, the responses will be considered by the ExA in making their recommendation to the Secretary of State and made available to the Secretary of State along with this RIES. The RIES will not be revised following consultation.

1.0.4 The Applicant's DCO application report Habitats Regulations Assessment: Report to Inform an Appropriate Assessment (HRA) Report (Tables 4-1 and 4-2 of [APP-092]) concluded that there is the potential for likely

[1] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (as codified) (the 'Habitats Directive').

[2] The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations).

[3] The term European Sites in this context includes Sites of Community Importance (SCIs), Special Areas of Conservation (SACs) and candidate SACs, Special Protection Areas (SPAs), possible SACs, potential SPAs, Ramsar sites, proposed Ramsar sites, and any sites identified as compensatory measures for adverse effects on any of the above. For a full description of the designations to which the Habitats Regulations apply, and/ or are applied as a matter of Government policy, see PINS Advice Note 10.

significant effects (LSE) on three UK National Site Network European sites. The Applicant submitted updated information to inform an appropriate assessment of these sites at Deadline 3 [REP3-009] and Deadline 5 [REP5-045]. A further three UK National Site Network European sites were concluded to have potential for likely significant effects and an assessment provided at Deadline 5 [REP5-045] following discussion during the Examination.

1.0.5 The Applicant has not identified any potential impacts on European sites in any EEA States[4] following an assessment detailed within Environmental Statement Chapter 5, paragraphs 5.3.2 to 5.3.4 [APP-037]. No such impacts have been raised for discussion by any IPs during the Examination to the point of publication of this RIES. Only UK National Site Network European sites are therefore addressed in this RIES.

Change requests made by the Applicant

1.0.6 The Applicant has made two change requests during the pre-Examination and Examination phases.

1.0.7 An initial change request (hereafter 'change request 1') was received during pre-examination on 30 August 2022 and accompanied by a summary of the changes to the conclusions made in the original application [AS-242 to AS-312]. This comprised the removal of one option considered for the Burwell substation extension and amendments to the type of cabling to be installed, requiring a small increase in the Order Limits. This included an appraisal of the environmental effects of the proposed changes that concluded, (paragraph 2.6.17 of [AS-243]), the changes did not alter the conclusions of the Applicant's HRA Report [APP-092]. This change was accepted by the ExA on the 4 October 2022 [PD-016], concluding that the proposals would not be considered a material change.

1.0.8 A second change request (hereafter 'change request 2') was submitted during the Examination on 13 January 2023, accompanied by an appraisal of the environmental effects of the proposed changes [REP5-059, Chapters 3 to 5]. The proposed revision comprised:

- Removal of Option 2 for the Burwell Substation Extension;
- Removal of solar panels from Sunnica West Site B;
- Inclusion of additional archaeological offset areas; and
- Removal of cable access route L.

1.0.9 This second change was accepted by the ExA [PD-023] on the 25 January 2023, concluding that the proposals would not be considered a material change.

1.0.10 The Applicant's conclusions in Chapter 4, Table 4-1 of ([REP5-059]) were that the removal of solar panels at Sunnica West Site B resolved any residual concern in relation to the following impacts to Chippenham Fen Ramsar site and Fenland SAC:

[4] European Economic Area (EEA) States.

- Disturbance from noise and dust; and
- Attraction of aquatic invertebrates to solar panels.

1.0.11 These conclusions are also reflected in the Applicant's updated HRA Report [REP5-045].

1.0.12 References to the 'Proposed Development' in this RIES, therefore, are to the Proposed Development for which a DCO has been sought, along with the amendments made by change request 1 and change request 2.

1.1 Documents used to inform this RIES

1.1.1 The Applicant's Habitats Regulations Assessment report comprises the following documents:

- Document 6.2 Environmental Statement - Appendix 8M – Habitats Regulations Assessment - Report to Inform an Appropriate Assessment [APP-092 and updated as REP3-009 and REP5-045] (including screening for LSE, screening and integrity matrices);
- Document 8.2 Proposed Changes to the Application ([AS-243], Table 3-1) contains information on HRA, provided as part of change request 1; and
- Document 8.74 Second Change Application [REP5-059], accepted into the Examination in [PD-023]. Tables 3-1, 4-1 and 5-1 contain information on HRA, provided as part of change request 2.

1.1.2 The Applicant's HRA Report also draws on information contained within other DCO documents as follows:

- Document 3.1: draft Development Consent Order [APP-019], updated as [REP2-012], [REP4-005] and Appendix F of [REP5-059];
- Document 6.1: Environmental Statement Chapter 3 - Project Description ([APP-035, updated as REP2-022]);
- Document 6.1: Chapter 8 - Ecology and Nature Conservation [APP-040];
- Document 6.1: Chapter 9 - Flood Risk, Drainage and Water Resources [APP-041];
- Document 6.1: Environmental Statement Chapter 13 - Transport and Access [APP-045];
- Document 6.1: Chapter 14 - Air Quality [APP-046];
- Document 6.2: Appendices 8A to 8K: Baseline ecological surveys [APP-077 to APP-090];
- Document 6.2: Appendix 10I Outline Landscape and Ecology Management (LEMP) Plan ([APP-108, updated as [REP3-011] and [REP5-011]);

- Document 6.2: Appendix 16C – Framework Construction Environmental Management Plan (CEMP) ([APP-123], updated as [REP2-026], [REP3-015], [REP5-043]);
- Document 6.2: Environmental Statement Appendix 16F – Framework Operational Environmental Management Plan (OEMP) ([APP-126], updated as [REP2-030] and [REP5-107]); and
- Document 6.3: Environmental Statement figures ([APP-129, APP-135 APP-136 APP-152 APP-153 APP-178 APP-234 and APP-235]).

1.1.3 In addition to these documents, the ExA has used representations submitted to the Examination by IPs, Issue Specific Hearing (ISH) documents, Statements of Common Ground (SoCG) and other Examination documents as relevant. All documents can be found in the Examination Library[5].

1.2 Structure of this RIES

1.2.1 The remainder of this report is as follows:

- **Section 2** identifies the European site(s) that have been considered within the DCO application and during the examination period, up to Deadline 6 (30 January 2023). It provides an overview of the issues that have emerged during the examination.
- **Section 3** identifies the European site(s) and qualifying feature(s) screened by the Applicant for potential LSE, either alone or in combination with other projects and plans. The section also identifies where IPs have disputed the Applicant's conclusions, together with any additional European sites and qualifying features screened for potential LSE during the examination.
- **Section 4** identifies the European sites and qualifying features which have been considered in terms of adverse effects on site integrity, either alone or in combination with other projects and plans**.**
- **Section 5** sets out concluding remarks on the position of HRA matters at the point of publication of the RIES.

1.2.2 Comments on the RIES are timetabled for Deadline 8 (13 March 2023).

[5] Sunnica Energy Farm Examination Library

2 OVERVIEW

2.0 European sites considered

2.0.0 The Proposed Development is not connected with or necessary to the management for nature conservation of any of the European site(s) considered within the Applicant's assessment.

2.0.1 Section 3.2 of the Applicant's HRA Report [APP-092] describes the process used to identify sites and features for inclusion in the assessment. The Applicant used Environment Agency (EA) guidance on large power generation developments greater than 50 MW, which provides a 15km radius of search as appropriate for identifying relevant European designated sites that may be affected by a proposed development. The Applicant states ([APP-092, paragraph 3.2.1]), however, that the Environmental Statement considered a search radius of 10km as appropriate for the proposed Sunnica Energy Farm, as it does not involve the stack emissions that can be connected with large power generation developments. [APP-092] nevertheless also goes on to state that while a 10km search radius was used, there are no other UK National Site Network European sites within 15km of the Proposed Development.

2.0.2 Paragraph 3.2.4 of [APP-092] also states that there are no sites designated for highly mobile species within 30km of the Proposed Development.

2.0.3 Using these criteria, the Applicant's HRA Report ([APP-092], Table 3-1) identified seven UK National Site Network European site(s) (and associated features) for inclusion within the assessment. These sites are also illustrated on Environmental Statement Figure 8-1 [APP-185]. Table 2.1 of this RIES lists the sites considered by the Applicant and the proximity of each site to the Proposed Development.

Table 2.1: Sites identified within the Applicant's HRA

Name of European Site	Distance to closest point of Sunnica Energy Farm
Fenland Special Area of Conservation (SAC)	Adjacent to Order Limits
Chippenham Fen Ramsar site	Adjacent to Order Limits
Breckland Special Protection Area (SPA)	1.4km north-east
Wicken Fen Ramsar site	2.1km north
Rex Graham Reserve SAC	3km north
Breckland SAC	3.1km east
Devil's Dyke SAC	4.5km south-west

2.0.4 In its response to The Examining Authority's First Written Questions ExQ1 [PD-017], NE confirmed [REP2-090] that it was satisfied that the Applicant's HRA Report had considered all relevant sites. This position was also reiterated in [AS-313] prior to ISH2. In its SoCG with the Applicant [REP4-017], NE also confirmed that it was satisfied that all relevant sites and impact-pathways were taken into account in the Applicant's screening exercise.

2.0.5 The Say No to Sunnica Action Group Ltd (SNTS) identified Eversden and Wimpole Woods SAC as being within 26.7km of the Order Limits at Deadline 3a [REP3a-051]. This site has one qualifying feature, Barbastelle bat *Barbastella barbastellus.* SNTS considered that this site should be included in the assessment on the basis of a wide foraging range for the species and as the Applicant's baseline surveys, presented in the ES in Appendix 8J [APP-087], detected presence of this species.

2.0.6 The Applicant responded at D4 [REP4-036] that evidence on the foraging range of bats from the SAC demonstrated that no functional link existed between the Proposed Development and the SAC. No further comment on this site and its qualifying feature has been made by any other IPs.

2.0.7 At ExQ3 [PD-025], the ExA invited Natural England to comment on the identification of this site. Responses to ExQ3 had not been received at the point of publication of this RIES.

2.0.8 No other UK European sites or features had been identified for inclusion in the assessment by any other IPs at the point of publication of the RIES and no other representations made on the Applicant's approach to the selection of sites for the assessment.

2.1 Summary of the Applicant's Assessment

2.1.1 The Applicant's screening conclusions are presented in Section 4 of its HRA Report [APP-092]. Table 3-1 of the Applicant's HRA Report summarises the sites and features for which LSE were identified (alone or in combination). This is supported by further detail in the matrices presented in [APP-092], Annex B. The Applicant updated its HRA Report at Deadline 3 [REP3-009] to respond to presentational errors identified in the ExA's First Written Questions [PD-017] and to add the conservation and condition status for each of the identified sites in its Table 3-1.

2.1.2 The Applicant's screening assessment [APP-092] concluded that the Proposed Development would have no LSE, either alone or in combination with other projects or plans, on the qualifying features of the following European site(s):

- Breckland SAC;
- Wicken Fen Ramsar site;
- Rex Graham Reserve SAC; and
- Devil's Dyke SAC.

2.1.3 The Applicant concluded in Section 4 of its HRA Report that LSE on the following sites could not be excluded and further assessment was required:

- Breckland SPA;
- Chippenham Fen Ramsar; and
- Fenland SAC.

2.1.4 These sites were assessed by the Applicant to determine whether they could be subject to an Adverse Effect on Integrity (AEoI) as a result of the Proposed Development, alone or in combination with other plans or projects, and in view of their conservation objectives.

2.1.5 The conclusions of the Applicant's assessment are presented in Section 5 of its HRA Report [APP-092]. The Applicant's assessment concluded that the Proposed Development would not result in AEoI on any UK National Site Network European site or their qualifying features.

2.2 HRA Matters Considered During the Examination

2.2.1 The Examination to date has focussed on the following impacts to UK National Site Network European sites and their qualifying features:

- Habitat degradation due to airborne pollutants and dust generation during construction;
- Habitat contamination from surface water pollutants during construction;
- Groundwater contamination during construction;
- Disruption to groundwater flow during construction;
- Indirect light pollution during construction and operation;
- Noise and visual disturbance during construction and operation;
- Physical displacement of breeding birds from functionally linked land during construction and operation; and
- Physical displacement of invertebrates attracted to solar panels during operation.

2.2.2 The Examination has also focussed on the following matters in relation to these impacts:

- The design of the Proposed Development in relation to potential effects on groundwater;
- The existence of a functional linkage between Breckland SPA and populations of stone curlew identified within the Order Limits; and
- In-combination air quality at Rex Graham Reserve SAC, Breckland SAC, Breckland SPA and Devil's Dyke SAC with other plans or projects.

3 LIKELY SIGNIFICANT EFFECTS

3.0 The Applicant's Assessment

3.0.1 The Applicant has described how it determined what would constitute a 'significant effect' within its HRA report [APP-092, REP3-009, REP5-045]. This follows EC guidance on habitats assessment (EC Guidance document: 'Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (2018)' and EC Guidance document: 'Assessment of plans and projects significantly affecting Natura 2000 sites (2001)').

3.0.2 [APP-092] updated as [REP3-009] and [REP5-045], Section 4, describes that the Applicant considered effects from the Proposed Development during the construction, operation and decommissioning phases. [REP3-009], paragraph 4.1.1 considers that effects arising from the decommissioning phases would be the same as those arising during construction. These impacts are therefore considered together by the Applicant.

3.0.3 Section 4.3 of [APP-092] contains the Applicant's conclusions on LSE from the project alone. The Applicant's screening conclusions are presented in Table 4.1 of [APP-092] for construction / decommissioning impacts and Table 4.2 for operational impacts. The Applicant updated these tables at Deadline 3 [REP3-009] to correct the descriptions of qualifying features in response to ExQ1. Section 4 of [APP-092] is supported by Annex B, matrices B1 to B7.

3.0.4 Potential in-combination effects with other plans or projects are considered within Section 4.4 of the Applicant's HRA report [APP-092]. [APP-092], Table 4-3 lists the projects included in the Applicant's in-combination assessment along with a qualitative review of the potential for significant effects with the Proposed Development.

3.0.5 A summary table of all UK National Site Network European sites and qualifying features considered by the Applicant and its conclusions of LSE is contained in Annex 1 to this RIES. Where the Applicant's conclusions in relation to LSE have been disputed by NE and other IPs during the Examination, this is indicated in Annex 1 and discussed further in Table 3.1 of this RIES.

3.1 Sites for which the Applicant concluded no LSE on all or some qualifying features

3.1.1 The Applicant's screening assessment ([APP-092] updated as [REP3-009] and REP5-045]), Tables 4.1 and 4.2 and Annex B matrices) concluded that the Proposed Development would have **no LSE**, either alone or in combination with other projects or plans, on all qualifying features of the following UK National Site Network European sites:

- Breckland SAC;
- Wicken Fen Ramsar site;

- Rex Graham Reserve SAC; and
- Devil's Dyke SAC.

3.1.2 The Applicant concluded ([APP-092] [REP3-009], Table 4.1 and Table 4.2) that the Proposed Development would have **no LSE**, either alone or in combination with other projects or plans, on the following qualifying features of the following sites:

- Fenland SAC
  - Spined loach (*Cobitis taenia*); and
  - Great crested newt (*Triturus cristatus*).
- Breckland SPA
  - Woodlark *(Lullula arborea);* and
  - Nightjar *(Caprimulgus europaeus).*

3.1.3 Conclusions in relation to the qualifying features of Breckland SPA listed in paragraph 3.1.2 of this RIES were not disputed by any IPs during the Examination.

3.1.4 The Applicant's conclusions of no LSE were disputed by IPs during the course of the Examination in relation to the remaining qualifying features of Chippenham Fen Ramsar site and Fenland SAC for project alone impacts, and the conclusions of no LSE for the in-combination assessment of Rex Graham Reserve SAC, Devil's Dyke SAC and Breckland SPA.

3.1.5 Suffolk Wildlife Trust (SWT) [REP2-049] disputed the Applicant's conclusions in relation to all qualifying features of Chippenham Fen Ramsar and Fenland SAC.

In combination plans or projects

3.1.6 In its Joint Local Impact Report (LiR) [REP1-024], East Cambridgeshire District Council (ECDC), Cambridgeshire County Council (CCC), Suffolk County Council (SCC) and West Suffolk Council (WSC) (hereafter referred to as 'the Councils') noted three additional plans and projects that had potential for LSE in combination with other plans or projects, specifically in relation to the stone curlew feature of Breckland SPA. These were:

- Forest Heath District Council Site Allocations Local Plan policy SA4 - Land to the West of Mildenhall;
- DC/21/0217/FUL - construction of commercial polyhouses with office and welfare area, hardstanding and loading bays, car parking, reservoir, landscaping and associated works and new access; and
- DC/21/1621/HYB - Land required for the Bexwell to Bury St Edmunds water pipeline.

3.1.7 The Applicant's HRA [APP-092] references application DC/21/0217/FUL within the list of cumulative schemes (Table 4-3). The HRA also references the Bexwell to Bury St Edmunds pipelines scheme under reference

20/01081/SCOPE, which relates to a request for an EIA Scoping Opinion from the local authority, rather than the planning application listed within the LiR [REP1-024]. In response, the Applicant [REP3-019] stated that the provision of habitat for breeding Stone Curlew within the Proposed Development ensures that there is enough suitable habitat such that the birds will remain within the Proposed Development boundary and, hence, there will be no impact on the Breckland SPA and no effect which could act in combination with other plans and projects in the immediate area.

3.1.8 West Suffolk Council [REP6-080] provided an update on the status of the three projects identified in paragraph 3.1.6 of this RIES, noting its concerns still remained in relation to the effects with allocation of Land to the West of Mildenhall.

3.1.9 No other IPs have commented on the plans or projects that should be considered in the scope of the in-combination assessment. At ExQ3 [PD-025], the ExA invited comment on whether IPs were satisfied with the list of plans and projects considered in the Applicant's in-combination assessment.

3.2 Sites for which the Applicant concluded Likely Significant Effects on all or some qualifying features

3.2.1 As a result of the screening assessment, the Applicant concluded that the Proposed Development is **likely to give rise to significant effects**, either alone or in combination with other projects or plans, on the qualifying features of the following UK European sites:

- Fenland SAC;
- Chippenham Fen Ramsar site; and
- Breckland SPA.

3.2.2 The Applicant's conclusion of potential LSE on those European sites and their qualifying features identified in [APP-092], Tables 4-1, 4-2 and 4-3 **were not disputed** by any Interested Parties during the examination.

3.2.3 At Deadline 5 [REP5-045], and in response to representations made during the Examination, the Applicant revised its conclusions in relation to in-combination effects on Breckland SAC, Rex Graham Reserve SAC and Devil's Dyke SAC. It concluded that for all three sites, the Proposed Development was **likely to give rise to significant effects** from habitat degradation during construction in combination with other plans or projects. These matters are discussed further in Section 4 of this RIES.

Table 3.1: Disputed conclusions of no LSE during Examination (project alone)

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
Chippenham Fen Ramsar site			
1	Ramsar criterion 1: Ramsar Criterion 1 - A spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation Ramsar criterion 2 - The invertebrate fauna is very rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain. Ramsar criterion 3 - The site supports diverse vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk	Habitat contamination (construction / decommissioning) Groundwater disturbance (construction / decommissioning)	The Applicant concluded ([APP-092], Screening Matrix B2) no potential for LSE on qualifying features from habitat contamination or groundwater disturbance from installation of grid connection route B or solar panels at Sunnica West Site B. Applicant stated this is because the structures and grid connection route B would all be above the depth of the chalk aquifer that feeds the fen. These conclusions were disputed by the Councils [REP1-024], SWT [REP2-049] and SNTS [REP3-019]. Applicant advised in its updated HRA Report [REP3-009], that no piling would be below 12m in depth. Also that changes to the Proposed Development (outlined in [REP3a-037], [REP3a-045] and provided in change request 2, [REP5-045]) were likely to resolve concerns about this impact pathway. CCC [REP4-137] confirmed it was satisfied that the depth of piling was such that there would be no effect to groundwater flow on the qualifying features of Chippenham Fen Ramsar site, and that where the nearest piling activity was at least 500m from Chippenham Fen Ramsar site, no effects would occur. SWT [REP4-019] agreed

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
	parsley (*Selinum carvifolia*). Noteworthy fauna: Breeding bird assemblage		that the removal of panels from Sunnica West site B would allow agreement to no LSE on this feature. CCC also recognised [REP4-137] that the Applicant proposed to remove solar panels from Sunnica West Site B and requested confirmation of the grid connection route B through this area and the effect of the change. Table 8.44 of [REP4-137] identifies the presence of peaty soils within the grid connection corridor at Sunnica West site B and suggested an alternative grid connection route alignment should be considered to avoid these areas. Applicant responded [REP5-057] that the small diameter and nature of the cabling in this area would not affect hydrology. NE concluded [REP2-090] and [AS-313] that it was satisfied there would be no LSE on the hydrology of this site or its qualifying features.
2	Ramsar criterion 1: Ramsar Criterion 1 - A spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation Ramsar criterion 2:- The invertebrate fauna is very	Non-physical disturbance (all phases)	The Applicant concluded ([APP-092], Screening Matrix B2) no potential for LSE as a result of light spill due to the presence of a buffer of vegetation between the Proposed Development and Chippenham Fen Ramsar site. NE requested [RR-1291] further information on noise and light spill contour maps and modelling data for sensitive habitats within Chippenham Fen Ramsar site to validate the conclusions. Applicant stated [REP1-016], that no LSE will

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
	rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain. Ramsar criterion 3: - The site supports diverse vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk parsley (*Selinum carvifolia*). Noteworthy fauna: Breeding bird assemblage		arise from this impact pathway for reasons previously stated in its HRA Report [APP-092]. At ExQ3 [PD-025], the ExA requested comment from NE whether this impact-pathway still remains.

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
3	Ramsar criterion 1: Ramsar Criterion 1 - A spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation Ramsar criterion 2: The invertebrate fauna is very rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain.	Physical displacement (operation)	Applicant concluded ([APP-092] Screening Matrix B2), no potential for LSE from egg laying aquatic invertebrates being attracted to solar panels, citing the distance of panels from the Ramsar site and the presence of natural barriers preventing invertebrates from reaching the panels. NE agreed ([RR-1291], paragraph 4.3.1 and [REP4-017]) with the Applicant's conclusions. However, SCC, CCC, WSDC and ECDC [REP1-024] considered there was insufficient evidence to support the conclusion of no LSE to this feature. It also requested solar panels be removed altogether from Sunnica West Site B, which was also the position of SNTS [REP3a-026 and REP3a-051]. The conclusions of no LSE were also disputed by SWT [RR-1142 and REP2-049] who also indicated that long term monitoring of invertebrates should be required. Applicant's response ([REP2-037 and REP2-038], Review of impact of Sunnica energy farm on aquatic invertebrates) concluded that given the behavioural nature of the invertebrate assemblage and the natural barriers in place between Chippenham Fen and the Proposed Development, no significant effects would arise. In its response [REP3a-049], the Councils agreed with the Applicant's conclusions that there would

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
			be no LSE from glint and glare on the invertebrate feature but noted this was reliant upon the retention of a shelter belt around Chippenham Fen, that long-term may be removed to allow the fen to expand. Section 1.2 of [REP3a-049] noted that the Applicant should therefore revise its conclusions to consider the potential that this shelter belt may not be in place for the lifetime of the Proposed Development. The Applicant [REP3a-087] noted its proposed change request would remove solar panels from Sunnica West Site B altogether and concluded that this should resolve concerns around potential LSE. SWT agreed with this position [REP4-019] and noted monitoring would be undertaken.

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
Fenland SAC			
4	Calcareous fens with Great Fen-sedge *Cladium mariscus* and species of the *Caricion davallianae*. *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*). (Purple moor-grass meadows)	Habitat contamination (construction / decommissioning) Groundwater disturbance (construction / decommissioning)	The Applicant's HRA Report [APP-092] and Annex B Screening Matrices report separately for each of the qualifying features at Fenland SAC and Chippenham Fen Ramsar site. During the Examination, however, for these impact pathways, Applicant conclusions and representations typically have been referred to as both sites together or collectively as 'Chippenham Fen'. Details of the matters that have been discussed and points of dispute for Fenland SAC can therefore be considered to be the same as those discussed in IDs 1 to 3 of this table.

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
5	Great crested newt (*Triturus cristatus*) (GCN)	Habitat loss / deterioration (Construction / decommissioning) Disturbance (Construction / decommissioning) Non-physical disturbance (Operation)	The Applicant identifies one record for GCN 250m north-west of Sunnica East Site B ([APP-092] paragraph 3.3.19), concluding that there is no link between GCN populations and Fenland SAC and thus no LSE on this qualifying feature. SNTS [REP2-240e and REP3a-051] identifies an additional record (GCN licence return) for GCN at Chippenham Fen not identified in the Applicant's baseline. In its response [REP4-036], the Applicant noted that previous monitoring by NE for Chippenham Fen had not identified this species and as such, the Applicant maintained its position that there was no impact pathway for the GCN feature of Fenland SAC. No other IPs have made representations on this matter at the point of publication of the RIES. At ExQ3 [PD-025], the ExA requested comment on the Applicant's conclusions on this qualifying feature.

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
Wicken Fen Ramsar site			
6	Ramsar criterion 2: Fen violet *Viola persicifolia* and other nationally scarce plants and Red Data Book invertebrates	Habitat contamination (Construction / decommissioning) Non-physical disturbance (All phases)	The Applicant concluded ([APP-092] and Screening Matrix B4), no LSE on all qualifying features of Wicken Fen Ramsar. NE noted [REP2-090] that the Applicant's assessment did not fully consider that Wicken Fen Ramsar site is also designated for its invertebrate assemblage ([REP2-090]). However, it did not consider that this would alter the conclusions of no LSE at Wicken Fen Ramsar site. No other matters have been raised by IPs during the course of the Examination in relation to this site or its qualifying features.
Breckland SPA			
7	Stone curlew *Burhinus oedicnemus*	Physical Displacement from functionally linked land (operation)	The Applicant did not include consideration of physical displacement in operation in its submitted HRA Report [APP-092]. NE [REP4-039] considered that this impact would occur during operation due to the presence of the solar panels. The Applicant's SoCG with NE [REP4-017], identifies that agreement had been reached with NE that this impact pathway should be screened in. The Applicant's updated HRA Report ([REP5-045], Table 4-2 and Screening Matrix B3) therefore includes this impact pathway. The ExA considers that this matter is resolved.

Table 3.2: Disputed conclusions of no LSE during Examination – in combination

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
Rex Graham Reserve SAC			
1	Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites	Habitat loss and / or degradation (all phases of development)	The Applicant concluded [APP-092, Matrix B5] that given the distance between the Order Limits and Rex Graham Reserve SAC that no LSE would occur in combination with other plans or projects. In its written representations, [REP2-090] NE stated it did not agree with the Applicant's methodology for the in-combination construction impacts, noting that construction traffic would use the A11 and A14, adjacent to Rex Graham Reserve SAC. It considered further assessment was required of in-combination effects from construction phase air quality effects on this site. The Applicant's response [REP1-016] clarified that its assessment conclusions used data and outputs of the air quality presented in the ES [APP-046] and restated its position that there was no in-combination LSE. It also indicated that this position had been discussed with NE. [REP4-017] reiterated that NE still considered an in-combination assessment to be required. The Applicant updated its HRA Report [REP5-045]. Table 4-1 of [REP5-045] identifies the potential for LSE on this qualifying feature from construction traffic associated with the Proposed Development elevating levels of air pollution and deposition of harmful pollutants on sensitive

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
			habitats and plant communities. The updated shadow appropriate assessment in Section 5 of [REP5-045] therefore considers this potential LSE and it is reported on in Section 5 of this RIES.
Breckland SPA			
2	Woodlark (*Lullula arborea*) Nightjar (*Caprimulgus europaeus)* Stone curlew (*Burhinus oedicnemus*)	Habitat loss / degradation (all phases of development)	The Applicant concluded ([APP-092] and Matrix B3) that there was no LSE from construction activities due to the distance between the SPA and the Proposed Development. NE [REP2-090] considered potential for LSE on air quality sensitive features of Breckland SPA during both construction and operation of the Proposed Development. At ExQ3 [PD-025], the ExA asked for further information from NE on the identification of this impact pathway.
Breckland SAC			
3	Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid Sites Inland dunes with open *Corynephorus* and *Agrostis* Grasslands Natural eutrophic lakes with *Magnopotamion* or	Habitat loss and / or degradation (all phases of development)	The Applicant concluded [APP-092, Matrix B6] that given the distance between the Order Limits and Breckland SAC that no LSE would occur in combination with other plans or projects. In its written representations, [REP2-090] NE stated it did not agree with the Applicant's methodology for the in-combination construction impacts, noting that construction traffic would use the A11 and A14, adjacent to Breckland SAC. It considered further assessment was required of

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
	Hydrocharition - type vegetation European dry heaths Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)		in-combination effects from construction phase air quality effects on Breckland SAC. The Applicant's response [REP1-016] clarified that its assessment conclusions used data and outputs of the air quality presented in the ES [APP-046] and restated its position that there was no in-combination LSE on the basis of this assessment. It also indicated that this position had been discussed with NE. [REP4-017] reiterated that NE still considered an in-combination assessment to be required. The Applicant updated its HRA Report [REP5-045]. Table 4-1 of [REP5-045] identifies the potential for LSE on this qualifying feature from construction traffic associated with the Proposed Development elevating levels of air pollution and deposition of harmful pollutants on sensitive habitats and plant communities. The updated shadow appropriate assessment in Section 5 of [REP5-045] therefore considers this potential LSE and is reported on in Section 5 of this RIES.
Devil's Dyke SAC			
4	Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites)	Habitat loss / degradation (all phases of development)	The Applicant concluded [APP-092, Matrix B7] that given the distance between the Order Limits and Devil's Dyke SAC that no LSE would occur in combination with other plans or projects. In its written representations, [REP2-090] NE stated it did not agree with the Applicant's

I.D	Site / qualifying features discussed	Impact pathway (s)	Examination matters
			methodology for the in-combination construction impacts, noting that construction traffic would use the A11 and A14, adjacent to Devil's Dyke SAC. It considered further assessment was required of in-combination effects from construction phase air quality effects on Devil's Dyke SAC. The Applicant's response [REP1-016] clarified that its assessment conclusions used data and outputs of the air quality presented in the ES [APP-046] and restated its position that there was no in-combination LSE on the basis of this assessment. It also indicated that this position had been discussed with NE. [REP4-017] reiterated that NE still considered an in-combination assessment to be required. The Applicant updated its HRA Report [REP5-045]. Table 4-1 of [REP5-045] identifies the potential for LSE on this qualifying feature from construction traffic associated with the Proposed Development elevating levels of air pollution and deposition of harmful pollutants on sensitive habitats and plant communities. The updated shadow appropriate assessment in Section 5 of [REP5-045] therefore considers this potential LSE and is reported on in Section 5 of this RIES.

3.3 Summary of HRA Screening outcomes during the Examination

3.3.1 At the time of publication of the RIES, the ExA considers that all sites, qualifying features and impact-pathways have been considered for LSE. Any matters outstanding in relation to the Applicant's screening report are identified within Tables 3.1 and 3.2 of this RIES.

4 ADVERSE EFFECTS ON INTEGRITY

4.0.1 The sites and qualifying features where the Applicant concluded there is potential for LSE are discussed further in this section.

4.0 Conservation Objectives

4.0.0 The conservation objectives for all of the UK National Site Network European sites discussed in this section of the RIES were provided by the Applicant in Table 3-2 of the HRA Report [APP-092]. Following a request by the ExA in ExQ1 [PD-017], this table was updated at Deadline 3 ([REP3-009]) to reflect the current conservation status of each identified site.

4.1 Consideration of Mitigation

4.1.1 Section 5 of the Applicant's HRA Report [APP-092] explains that sites and features were brought forward in the assessment because of the need to take mitigation into account before forming conclusions on Adverse Effects on Integrity (AEoI). The Applicant refers to the 'People over Wind' ruling[6] that concludes that mitigation measures implemented to avoid significant effects cannot be applied at the screening stage.

4.1.2 Section 5 of the Applicant's HRA report [APP-092, REP3-009] sets out three sites taken forward for assessment and details, in Sections 5.1 to 5.3, the impact pathways, the mitigation measures considered, and the conclusions on AEoI that were reached. This is supported by matrices provided in Annex C of [APP-092], [REP3-009] and [REP5-045].

4.2 The Applicant's Integrity Test

No Adverse Effects on Site Integrity

4.2.1 The Applicant concluded that the Proposed Development will not adversely affect (either alone, or in combination with other plans or projects) the integrity of the following UK National Site Network European site(s) and feature(s):

[6] People Over Wind & Sweetman v. Coillte Teoranta (C-323/17)

- Fenland SAC (habitat degradation from airborne pollutants during construction);
- Chippenham Fen Ramsar site (habitat degradation from airborne pollutants during construction);
- Breckland SPA (physical disturbance from impacts to functionally linked land during construction, noise and visual disturbance during construction and operation, non-physical disturbance during construction);
- Rex Graham Reserve SAC (Habitat loss and/or degradation – degradation to designated habitats through airborne pollutants);
- Breckland SAC (Habitat loss and/or degradation – degradation to designated habitats through airborne pollutants); and
- Devil's Dyke SAC (Habitat loss and/or degradation – degradation to designated habitats through airborne pollutants).

4.2.2 The Applicant's conclusions in relation to the sites and features listed above have been the subject of discussion and clarification throughout the Examination. A summary of the discussion to date is described in the following sections of this report.

Change requests

4.2.3 The Applicant's change request documentation ([AS-243] and [REP5-059]) concluded that no new sites or qualifying features were affected as a result of the changes. [REP5-059, Tables 3-1, 4-1 and 5-1] also concluded that there was no change to its conclusions of no AEoI with change request 2 in place.

Potential for Adverse Effects on Integrity - Fenland SAC

4.2.4 The Proposed Development is adjacent to the southern boundary of Fenland SAC. The Applicant considered ([APP-092], Section 5.2 and Matrix C1), that with dust control measures, secured through the framework CEMP [APP-123], there would be no AEoI on all qualifying features of Fenland SAC.

4.2.5 In its SoCG with the Applicant [REP2-046], NE confirmed it agreed that the Proposed Development would have no AEoI on Fenland SAC and confirmed that measures within ES Chapter 14 - Air Quality [APP-046] and the framework CEMP [APP-123] are appropriate to control the potential adverse effects of the Proposed Development.

4.2.6 CCC raised general concerns [REP1-024] about the level of detail provided in the framework CEMP. At Deadline 4 [REP4-137], CCC also requested further information on the location of the proposed off-site daily inspections for dust monitoring, as part of its consideration of effects on the *Molinia* qualifying feature of Fenland SAC.

4.2.7 Further information was not provided in the Applicant's updated HRA Report at Deadline 5 [REP5-045] and so the ExA considers that this matter remains outstanding at the point of publication of the RIES.

Potential for Adverse Effects on Integrity - Chippenham Fen Ramsar site

4.2.8 The Proposed Development is adjacent to the southern boundary of Chippenham Fen Ramsar site. The Applicant considered ([APP-092], Section 5.3 and Matrix C2), that with dust control measures, secured through the framework CEMP [APP-123], that there would be no AEoI on all qualifying features of Chippenham Fen Ramsar site.

4.2.9 In its SoCG with the Applicant [REP2-046], NE confirmed it agreed that the Proposed Development would have no AEoI on Fenland SAC and confirmed that measures within ES Chapter 14 - Air Quality [APP-046] and the framework CEMP [APP-123] are appropriate to control the potential adverse effects of the Proposed Development.

4.2.10 The ExA considers this matter to be resolved.

Potential for Adverse Effects on Integrity - Breckland SPA

4.2.11 Breckland SPA is situated 1.4km to the north-east of the Proposed Development. The Proposed Development does not directly affect Breckland SPA, but evidence from the Applicant's consultation with the RSPB noted a link between stone curlew nesting within the Order Limits and stone curlew feature at Breckland SPA, indicating a functional link between the two sites. This was initially also the position of NE [RR-1291].

4.2.12 The Applicant concluded ([APP-092], Section 5.4 and Matrix C3) that there would be no AEoI on the stone curlew feature of Breckland SPA. The Applicant argued that proposed mitigation measures including offsetting habitat would ensure no net loss of breeding pairs of stone curlew. This is secured through the draft DCO in the form of land management specifically to provide additional nesting plots and foraging habitat for this species.

4.2.13 In its relevant representations ([RR-1291], paragraph 3.4.3), NE agreed that there would be no AEoI on the stone curlew feature of Breckland SPA but that the provision, management and monitoring of mitigation measures for stone curlew required further consideration.

4.2.14 As part of its comments ([REP4-137] Table 8.47) on the Environmental Masterplan, effects on recreation and public access around the Proposed Development, CCC also noted the potential for a public access strategy that could benefit stone curlew by diverting the public away from areas set aside for stone curlew mitigation, particularly such that access should be moved away from land parcels EC01 and EC02.

4.2.15 SWT [REP3-079, RR-1142], in its response to ExQ1, noted that while it agreed in principle to the types of habitat proposed, it did not agree that the measures were adequate or realistic to retain stone curlew numbers or breeding pairs. It considered that while stone curlew would not be excluded from operational areas, that nesting success would be affected due to human disturbance and an increased risk of predation from a reduction in sight lines. It noted the proximity of offsetting areas for stone curlew to roads, houses and public rights of way that reduce the suitability of offsetting sites for stone curlew.

4.2.16 It also noted a lack of detail, such as in the preparation, timing of cultivation and timing of the other mitigation measures such as grassland establishment, in order to be satisfied that the proposed stone curlew plots would provide suitable mitigation.

4.2.17 At Deadline 4, however, [REP2-090] NE noted that its own investigation had established that the stone curlew populations within the Order Limits were not the same population found at Breckland SPA, and there was no functional link with Breckland SPA. NE therefore concluded ([REP2-090], Table 2 of part III) that the stone curlew qualifying feature at Breckland SPA no longer required consideration in the HRA.

4.2.18 In [REP4-139] NE stated that there was potential for AEoI to the stone curlew qualifying feature from physical displacement during operation and that this impact-pathway should therefore be considered in the Applicant's assessment. The Applicant's updated HRA Report [REP5-045] reflects this but maintains its conclusions of no AEoI on stone curlew from this impact pathway.

4.2.19 The ExA therefore asked NE to clarify its position at ExQ2 [PD-021]. NE confirmed at Deadline 5 [REP5-096] that stone curlew and stone curlew habitat within the Order Limits is not functionally linked to Breckland SPA. It also confirmed its satisfaction that no other feature of Breckland SPA were affected by the Proposed Development and the SPA could therefore be excluded from further consideration in the HRA process.

4.2.20 At ExQ3, the ExA asked NE to provide its further investigations that explain the position reached in relation to the functional link between the area affected by the Proposed Development and the Breckland SPA.

4.2.21 Notwithstanding its position in relation to the HRA process, at Deadline 5 [REP5-096], NE advised it was satisfied with the Applicant's estimates of the numbers of pairs of stone curlew within and close to the Order Limits. It also confirmed its agreement to the area of offsetting habitat for stone curlew provided, the methods for creating and managing the habitat and that monitoring proposals are also acceptable. NE noted that management measures such as mowing should be preceded by stone curlew surveys, and that this should be secured in the relevant environmental management plan.

4.2.22 In responses to ExQ2 (2.2.6) [PD-021], CCC [REP5-079], ECC [REP5-080], SCC [REP5-084] and WSC [REP5-085] consider a potential conflict to exist between areas of preservation and management of archaeological assets and the management of stone curlew plots, including the requirements for a reduction of nutrient levels prior to the establishment of grassland, management of bare ground nesting plots; and management/grazing of grassland, with particular reference to plot ECO1. It remains a concern of these IPs whether archaeological constraints would restrict the Applicant's ability to deliver habitat for stone curlew. These concerns are reiterated in the CCC response [REP6-057] to the updated Stone Curlew Offsetting Specification [REP5-046].

4.2.23 In its SoCG with the Applicant [REP6-039], the matters of whether the approach to habitat provision for stone curlew is adequate and the

monitoring/management arrangements for stone curlew to determine the effectiveness of the proposed mitigation remain under discussion.

4.2.24 In its comments on the Applicant's Deadline 5 submissions, CCC [REP6-057] also consider that the proposed grassland creation and establishment, along with proposed fencing within the LEMP is inconsistent with the Offsetting Habitat Provision for Stone-Curlew Specification [REP5-046]. Inconsistencies between the LEMP and offsetting specification are also commented on by SCC [REP6-075], WSC [REP6-080]

4.2.25 In its comments on the Applicant's revised Stone Curlew Offsetting Specification [REP5-046], CCC [REP6-057] and WSC [REP6-080] consider that there remain concerns over conflict with the management of archaeological assets, the minimum number of replacement nesting plots, compliance of the proposed offsetting with national guidance for stone curlew habitat, and optimal mitigation preparation and post construction maintenance associated with mowing or other vegetation management processes.

4.2.26 The ExA considers that this matter remains outstanding at the point of publication of the RIES.

Potential for Adverse Effects on Integrity - Breckland SAC

4.2.27 Breckland SAC is located 3.1km east of the Proposed Development. The Applicant considered [APP-092] that there was no potential for LSE on any qualifying features of this site, due to the distance from the Proposed Development.

4.2.28 This position was disputed by NE who identified the potential for in-combination air quality effects during construction (see Table 3-1 of this RIES).

4.2.29 At Deadline 4 [REP4-017], the Applicant stated it had used air quality information from the Environmental Statement [APP-046] to inform the consideration of in-combination air quality effects in the HRA Report.

4.2.30 Following written representations on this matter from NE [RR-1291], REP2-090]), the Applicant amended its HRA Report at Deadline 5 ([REP5-045], Section 5.6 and Matrix C6) to include an assessment of AEoI from in-combination air quality effects. This considered the following qualifying features and impact pathways:

- Inland dunes with open *Corynephorus* and *Agrostis* grasslands. Impact Pathway: Habitat loss and/or degradation – degradation to designated habitats through airborne pollutants;
- Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation. Impact Pathway: Habitat loss and/or degradation – degradation to designated habitats through airborne pollutants;
- European dry heaths. Impact Pathway: Habitat loss and/or degradation – degradation to designated habitats through airborne pollutants;

- Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites). Impact Pathway: Habitat loss and/or degradation – degradation to designated habitats through airborne pollutants; and
- Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion*, *Alnion incanae, Salicion albae*). Impact Pathway: Habitat loss and/or degradation – degradation to designated habitats through airborne pollutants.

4.2.31 Section 5.6 of [REP5-045] and air quality modelling presented in Annex D of [REP5-045] identifies that the mean critical levels of NOx and nitrogen deposition are exceeded in combination with other plans or projects.

4.2.32 Critical loads for ammonia, nitrogen and acid are predicted not to exceed 1% of the mean critical level / load threshold in most cases, except for one location where nitrogen levels are increased slightly above the critical load at Transect 2 ([REP5-045], Annex D, Appendix A, Figure 3).

4.2.33 The Applicant concludes that as the contribution of the Proposed Development to ammonia, nitrogen and acid deposition in combination with other plans or projects is very small, there is no potential for the Proposed Development to affect the ability of the SAC to meet its conservation objectives.

4.2.34 At Deadline 6 [REP6-070], NE notes that the Applicant had provided an in-combination assessment [REP5-045] and confirms its satisfaction with the Applicant's conclusion of no AEoI from this impact pathway.

Rex Graham Reserve SAC

4.2.35 Rex Graham Reserve SAC is located 3km north of the Proposed Development. The Applicant concluded [APP-092] that there was no potential for LSE on any qualifying features of this site, due to the distance of the site from the Proposed Development.

4.2.36 This position was disputed by NE who identified the potential for in-combination air quality effects during construction (see Table 3-1 of this RIES).

4.2.37 At Deadline 4 [REP4-017], the Applicant stated it had used air quality information from the Environmental Statement [APP-046] to inform the consideration of in-combination air quality effects in the HRA Report.

4.2.38 Following written representations on this matter from NE [RR-1291], REP2-090]), the Applicant amended its HRA Report at Deadline 5 ([REP5-045], Section 5.5 and Matrix C5) to include an assessment of AEoI from in combination air quality effects. This considered the following qualifying feature and impact pathway:

- Semi – natural grassland and scrubland facies on calcareous substrates (*Festuco-Brometalia*) *Important orchid sites. Impact pathway: Habitat loss and / or degradation – degradation to designated habitats through airborne pollution.

4.2.39 The Applicant's assessment (Section 5.5 of [REP5-045] and Matrix C5) identifies an exceedance of the mean critical level for NOx and critical load for nitrogen at Transect 4 ([REP5-045], Annex D, Appendix A, Figure 4) with the addition of the Proposed Development. For ammonia, nitrogen and acid, the assessment identifies critical loads / levels are already exceeded although the Applicant concludes that the contribution of the Proposed Development would be below 1% of the threshold.

4.2.40 The Applicant concludes that as the contribution of the Proposed Development to ammonia, nitrogen and acid deposition in combination with other plans or projects is very small, there is no potential for the Proposed Development to affect the ability of the SAC to meet its conservation objectives.

4.2.41 At Deadline 6 [REP6-070], NE noted that the Applicant had provided an in-combination assessment and confirmed it was satisfied with the conclusion of no AEoI from this impact pathway.

Devil's Dyke SAC

4.2.42 Devil's Dyke SAC is located 4.5km south-west of the Proposed Development. The Applicant concluded [APP-092] that there was no potential for LSE on any qualifying features of this site, due to the distance from the Proposed Development.

4.2.43 This position was disputed by NE who identified the potential for in-combination air quality effects during construction (see Table 3-1 of this RIES).

4.2.44 At Deadline 4 [REP4-017], the Applicant stated it had used air quality information from the Environmental Statement [APP-046] to inform the consideration of in-combination air quality effects in the HRA Report.

4.2.45 Following written representations on this matter from NE [RR-1291], REP2-090]), the Applicant amended its HRA Report at Deadline 5 ([REP5-045], Section 5.7 and Matrix C7) to include an assessment of AEoI from in-combination air quality effects. This considered the following qualifying feature and impact pathway:

- Semi – natural grassland and scrubland facies on calcareous substrates (*Festuco-Brometalia*) *Important orchid sites. Impact pathway: Habitat loss and / or degradation – degradation to designated habitats through airborne pollution

4.2.46 The Applicant's assessment identifies an exceedance of the critical level for NOx and critical load for nitrogen at Transect 1 ([REP5-045], Annex D Appendix A Figure 2) with the addition of the Proposed Development. For ammonia, nitrogen and acid, the critical loads / levels are already exceeded although the Applicant concludes that the contribution of the Proposed Development would be below 1% of the threshold.

4.2.47 The Applicant concludes that as the contribution of the Proposed Development to ammonia, nitrogen and acid deposition in combination with other plans or projects is very small, there is no potential for the

Proposed Development to affect the ability of the SAC to meet its conservation objectives.

4.2.48 At Deadline 6 [REP6-070], NE noted that the Applicant had provided an in-combination assessment and confirmed it was satisfied with the conclusion of no AEoI from this impact pathway.

5 MATTERS RESOLVED AND MATTERS OUTSTANDING

5.0.1 The ExA understands that agreement has been reached on:

- The sites and features where LSE could occur as a result of the Proposed Development (with the exception of confirmation on Eversden and Wimpole Woods SAC);
- The conclusions of no AEoI on Chippenham Fen Ramsar site and Fenland SAC from project alone habitat degradation effects;
- The conclusions of no AEoI on Breckland SAC, Rex Graham SAC and Devil's Dyke SAC from air quality in-combination effects.

5.0.2 The following Habitats Regulations matters, however, remain outstanding at the point of publication of the RIES:

- The potential for LSE from grid connection route B on the drainage and hydrology of Chippenham Fen Ramsar site and Fenland SAC;
- The potential for LSE from light spill on qualifying features of Chippenham Fen Ramsar site and Fenland SAC;
- Evidence used by NE to determine that stone curlew habitat affected by the Proposed Development is not functionally linked to the Breckland SPA;
- The likely consequences in the event that the stone curlew mitigation proposed is not successful or is found to be sub-optimal;
- The potential for LSE from air quality in-combination effects at Breckland SPA;
- The level of detail on dust management in the framework CEMP.

5.0.3 Further evidence is also being sought from IPs to support the conclusions and agreements that have been described in this RIES.

ANNEX 1: UK EUROPEAN SITES IDENTIFIED BY THE APPLICANT AND CONSIDERED DURING THE EXAMINATION

Table A1.1: Applicant's conclusions of LSE – project alone and in combination

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
Chippenham Fen Ramsar site			
Ramsar Criterion 1: - A spring-fed calcareous basin mire with a long history of management, which is partly reflected in the diversity of present-day vegetation.	Habitat loss and / or degradation (Construction / decommissioning)	**Yes**	No
	Habitat contamination (Construction / decommissioning)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Groundwater disturbance (Construction / decommissioning)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Non-physical disturbance (All phases)	No	**Yes** (NE, [RR-1291])
	Physical Disturbance	No	**Yes**

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
			(Councils, [REP1-024])
Ramsar criterion 2: - The invertebrate fauna is very rich, partly due to its transitional position between Fenland and Breckland. The species list is very long, including many rare and scarce invertebrates characteristic of ancient fenland sites in Britain.	Habitat loss and/ or degradation (Construction / decommissioning)	**Yes**	No
	Habitat contamination (Construction / decommissioning)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Groundwater disturbance (Construction / decommissioning)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Non-physical disturbance (All phases)	No	**Yes** (NE, [RR-1291])
	Physical displacement (Operation)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Habitat loss and / or degradation (Construction / decommissioning)	**Yes**	No

Sites and Qualifying Features	**Potential impacts**	**Applicant's conclusions of LSE**	**Disputed by IPs? (Y/N)**
Ramsar criterion 3: - The site supports diverse vegetation types, rare and scarce plants. The site is the stronghold of Cambridge milk parsley (*Selinum carvifolia*).	Habitat contamination (Construction / decommissioning)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Groundwater disturbance (Construction / decommissioning)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Non-physical disturbance (All phases)	No	**Yes** (NE, [RR-1291]
Noteworthy Fauna Breeding Bird Assemblage.	Habitat contamination (Construction / decommissioning)	No	No
	Groundwater disturbance (Construction / decommissioning)	No	No
	Non-physical disturbance (All phases)	No	No
	Physical displacement (Operation)	No	No

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
Fenland SAC			
Calcareous fens with Great Fen-sedge *Cladium mariscus* and species of the *Caricion davallianae*	Habitat loss and / or degradation (Construction / decommissioning)	**Yes**	No
	Habitat contamination (Construction / decommissioning)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Groundwater disturbance (Construction / decommissioning)	No	**Yes** SWT [REP2-049] Councils [REP1-024] SNTS [REP3-019]
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae).* (Purple moor-grass meadows)	Habitat loss and / or degradation (Construction / decommissioning)	**Yes**	No
	Habitat contamination (Construction / decommissioning)	No	**Yes**

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
			(SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
	Groundwater disturbance (Construction / decommissioning)	No	**Yes** (SWT, [REP2-049]) (Councils, [REP1-024]) (SNTS, [REP3-019])
Spined loach (*Cobitis taenia)*	Habitat contamination (Construction / decommissioning)	No	No
	Non-physical disturbance (Operation)	No	No
Great crested Newt (*Triturus cristatus)*	Habitat loss / deterioration (Construction / decommissioning)	No	**Yes** (SNTS, [REP2-240e and REP3a-051])
	Disturbance (Construction / decommissioning)	No	**Yes** (SNTS, [REP2-240e and REP3a-051])

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
	Non-physical disturbance (Operation)	No	**Yes** (SNTS, [REP2-240e and REP3a-051])
Wicken Fen Ramsar			
Ramsar Criterion 1 – East Anglian peat fens	Habitat loss and / or degradation (Construction / decommissioning)	No	No
	Habitat contamination (Construction / decommissioning)	No	No
	Non-physical disturbance (All phases)	No	No
Ramsar Criterion 2 - Fen violet *Viola persicifolia* and other nationally scarce plants and Red Data Book invertebrates	Habitat contamination (Construction / decommissioning)	No	**Yes** (NE, [REP2-090])

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
Breckland SPA			
Stone curlew (*Burhinus oedicnemus)*	Habitat loss and / or degradation (Construction / decommissioning air quality)	No	**Yes** (NE, [REP2-090])
	Physical displacement from functionally linked land (Construction / decommissioning)	**Yes**	No
	Noise and visual disturbance (All phases)	**Yes**	No
	Non-physical disturbance (Construction / decommissioning)	**Yes**	No
	Physical displacement from functionally linked land (Operation)	Not considered	**Yes** (NE, [REP4-039])

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
Woodlark (*Lullula arborea)*	Habitat loss and / or degradation (Construction / decommissioning air quality)	No	**Yes** [NE, REP2-090]
	Physical displacement (Construction / decommissioning)	No	No
	Noise and visual disturbance (All phases)	No	No
	Non-physical disturbance (All phases)	No	No
Nightjar (*Caprimulgus europaeus*)	Habitat loss and / or degradation (Construction / decommissioning air quality)	No	**Yes** (NE, [REP2-090])
	Physical displacement (Construction / decommissioning)	No	No

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
	Noise and visual disturbance (All phases)	No	No
	Non-physical disturbance (All phases)	No	No
Rex Graham Reserve SAC			
Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites	Habitat loss and / or degradation (Construction / decommissioning)	No*	**Yes** (NE, [REP2-090])
	Non-physical disturbance (Operation)	No	No
Breckland SAC			
Inland dunes with open *Corynephorus* and *Agrostis* grasslands	Habitat loss and / or degradation (Construction / decommissioning – in combination air quality)	No*	**Yes** (NE, [REP2-090])
	Habitat contamination (Construction / decommissioning – in combination)	No	No
	Non-physical disturbance (Operation)	No	No

Sites and Qualifying Features	**Potential impacts**	**Applicant's conclusions of LSE**	**Disputed by IPs? (Y/N)**
Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* – type vegetation	Habitat loss and / or degradation (Construction / decommissioning – in combination)	No*	**Yes** (NE, [REP2-090])
	Habitat contamination (Construction / decommissioning – in combination)	No	No
	Non-physical disturbance (All phases)	No	No
European dry heaths	Habitat loss and / or degradation (Construction / decommissioning – in combination)	No*	**Yes** (NE, [REP2-090])
	Habitat contamination (Construction / decommissioning – in combination)	No	No
	Non-physical disturbance (Operation)	No	No

Sites and Qualifying Features	**Potential impacts**	**Applicant's conclusions of LSE**	**Disputed by IPs? (Y/N)**
Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites)	Habitat loss and / or degradation (Construction / decommissioning – in combination)	No*	**Yes** (NE, [REP2-090])
	Habitat contamination (Construction / decommissioning – in combination)	No	No
	Non-physical disturbance (Operation)	No	No
Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)	Habitat loss and / or degradation (Construction / decommissioning – in combination)	No*	**Yes** (NE, [REP2-090])
	Habitat contamination (Construction / decommissioning – in combination)	No	No
	Non-physical disturbance (Operation)	No	No
Great crested newt (*Triturus cristatus)*	Habitat contamination (Construction / decommissioning)	No	No

Sites and Qualifying Features	Potential impacts	Applicant's conclusions of LSE	Disputed by IPs? (Y/N)
	Non-physical disturbance (All phases)	No	No
Devil's Dyke SAC			
Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites)	Habitat loss and / or degradation (Construction / decommissioning)	No*	**Yes** (NE, [REP2-090])
	Non-physical disturbance (All phases)	No	No

*Applicant amended its position on LSE for this site and qualifying feature in its updated HRA Report at Deadline 5 [REP5-045], concluding there is potential for LSE.