

# REPORT on the IMPLICATIONS for EUROPEAN SITES

## Proposed Tillbridge Solar Project

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

Planning Inspectorate Reference: EN010142

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#### 1 INTRODUCTION

#### 1.0 Background

- 1.0.1 Tillbridge Solar Limited (the applicant) has applied for a development consent order (DCO) under section 37 of the Planning Act 2008 (PA2008) for the proposed Tillbridge Solar Project ('the proposed development'). On behalf of the Secretary of State for Housing, Communities and Local Government, an Examining Authority (ExA) has been appointed to conduct an examination of the application. The ExA will report its findings and conclusions and make a recommendation to the relevant Secretary of State (SoS) as to the decision to be made on the application.
- 1.0.2 For applications submitted under the PA2008 regime, the relevant SoS is the competent authority for the purposes of the Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations'). 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.
- 1.0.3 This Report on the Implications for European sites (RIES) documents and signposts the information in relation to potential effects on European Sites that was provided within the DCO application and submitted during the examination by the applicant and Interested Parties (IPs), up to Deadline 5 (DL5) of the examination (25 February 2025). 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 report, that reference can be found in the examination library published on the 'Find a National Infrastructure Project' website by following the link below:

https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010142/EN010142-000427-Tillbridge%20Solar%20Examination%20Library.pdf

- 1.0.4 For the purpose of this RIES, in line with the Habitats Regulations and relevant Government policy, the term 'European sites' includes Special Areas of Conservation (SAC), candidate SACs, proposed SACs, Special Protection Areas (SPA), potential SPAs, listed and proposed Ramsar sites and sites identified or required as compensatory measures for adverse effects on any of these sites. For ease of reading, this RIES also collectively uses the term 'European site' for European sites as defined in the Habitats Regulations 2017, unless otherwise stated. The 'UK National Site Network' refers to SACs and SPAs belonging to the United Kingdom already designated under the Directives and any further sites designated under the Habitats Regulations.
- 1.0.5 This RIES is issued to ensure that IPs including the Appropriate Nature Conservation Body (ANCB) Natural England (NE) is 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.

- 1.0.6 It also aims to identify and close any gaps in the ExA's understanding of IPs' positions on Habitats Regulations matters, in relation to all European sites and qualifying features as far as possible, in order to support a robust and thorough recommendation to the Secretary of State.
- 1.0.7 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 report. The RIES will not be revised following consultation.
- 1.0.8 Comments on the RIES are timetabled for DL6 (1 April 2025).

#### 1.1 Documents used to inform this RIES

- 1.1.1 The applicant's Habitats Regulations Assessment (HRA) Report (the HRA Report) comprised the following document(s):
  - Habitat Regulations Assessment Report [APP-094], provided as Appendix 9-12 of the Environmental Statement (ES) and updated at DL1 [REP1-058A] and DL3 [REP3-006]
- 1.1.2 In addition to the HRA Report, the RIES refers to 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.

#### 1.2 Change Requests

- 1.2.1 To date, the applicant has made the following change request:
  - change request dated 27 September 2024 [AS-036 to AS-066]. Fifteen changes, including reductions in the order limits and highway access refinements.
- 1.2.2 This change was accepted by the ExA on 24 October 2024 [PD-008, annex D]. No relevant HRA matters arose from this change request and no further change requests have been received to date during the examination.

#### 1.3 HRA Matters Considered During the Examination

- 1.3.1 The examination to date has focussed on the following matters:
  - the impact-pathways with potential for likely significant effects (LSE)
  - LSE on qualifying features of the Humber Estuary Special Area of Conservation (SAC) and Humber Estuary Ramsar Site

#### 2 LIKELY SIGNIFICANT EFFECTS

#### 2.0 European sites considered

#### Introduction

- 2.0.1 The proposed development is not connected with or necessary to the management for nature conservation of any European site.
- 2.0.2 The scope of the assessment is described within paragraph 4.2 of the HRA Report [APP-094]. The applicant noted that there is no published guidance on screening distances for solar farms. A combination of professional judgement and published guidance from the Environment Agency (EA) on screening for large power generation projects was therefore used to set a 10km search area for European sites. The applicant noted that while the proposed development is a large power generation project, it would not result in elevated air emissions and so the EA guidance recommendation of a 15km search area radius was not used as it was considered unlikely to reflect the impacts arising from the proposed development. The applicant also noted that there were no further sites identified within a 20km radius of the proposed development designated for birds such as geese or 30km for bats [REP1-058A].
- 2.0.3 The applicant stated [APP-094, section 3.2] that during pre-application, additional comments were received from the Environment Agency in relation to the potential for electromagnetic fields (EMF) to affect migratory fish. The applicant subsequently agreed with NE during the pre-application phase that a wider search area would therefore be undertaken beyond the original 10km identified by the applicant, in order to determine whether the proposed development could be connected to any European sites designated for migratory fish.
- 2.0.4 The applicant's HRA Report [APP-094] therefore included consideration of a wider search area within its screening methodology.
- 2.0.5 The ExA asked NE to comment on the distances used to screen in sites to the assessment in ExQ1 [PD-009, Q1.2.14]. NE confirmed [REP3-071] that it was satisfied that the distances used were appropriate to identify all relevant European sites and/ or European site qualifying features that could be affected by the proposed development and any functional usage outside of designated sites.
- 2.0.6 No further matters have been raised in the examination to date in relation to the applicant's approach to identification of European sites.

#### Sites within the UK National Site Network (NSN)

- 2.0.7 The applicant's HRA Report [APP-094 and REP1-058A] identified two European sites within the UK National Site Network for inclusion within the assessment. These are the Humber Estuary SAC and Humber Estuary Ramsar Site (both 20.2km north of the proposed development).
- 2.0.8 The applicant's submitted HRA Report [APP-094] did not contain a figure to identify the European sites considered in the assessment. At ExQ1, the ExA

- requested information to show the proposed development in relation to European sites [PD-009, Q1.2.16] and the locations of these sites relative to the proposed development were subsequently provided by the applicant as Figure 1 of the HRA Report [REP3-006].
- 2.0.9 The applicant identified [APP-094, paragraph 3.1.5] that the Order Limits do not overlap with any EEA state. Only sites within the UK NSN are addressed in this RIES.
- 2.0.10 No additional UK European sites have been identified by IPs for inclusion within the assessment in the examination to date.

#### 2.1 Potential impact pathways

2.1.1 Section 4 of the HRA Report detailed the potential impacts from the proposed development, along with the potential geographical extent of effects. Table 5 of the HRA Report [APP-094] lists the sites and qualifying features and the impact pathways which could affect them.

Table 2.1 Pathways for LSE assessed by the applicant [APP-094]

Site / qualifying feature	LSE pathway
Humber Estuary SAC	
River lamprey Lampetra fluviatilis and sea amprey Petromyzon marinus	Noise and visual disturbance (construction and decommissioning) Barriers (including EMF) and/ or displacement (operation)
Humber Estuary Ramsar	Site
River lamprey and sea lamprey (Ramsar Criterion 8)	Noise and visual disturbance (construction and decommissioning) Barriers (including EMF) and/ or displacement (operation)

- 2.1.2 The HRA Report assessed potential impacts during the construction, operation and decommissioning phases. The applicant considered potential impacts during the decommissioning phase to be similar to those outlined in the construction phase [APP-094, section 5.2).
- 2.1.3 In its relevant representation, NE [RR-208, NE1, NE3, NE4] identified the following additional impact-pathways it considered should be assessed:
  - impacts to functionally linked land for passage and wintering golden plover *Pluvialis apricaria* of the Humber Estuary Ramsar Site
  - impacts to sea lamprey and river lamprey qualifying features of the Humber Estuary SAC and Humber Estuary Ramsar Site from construction pollutants (silt and bentonite)

- 2.1.4 In its RR [RR-208], NE noted that the applicant's assessment [APP-094] did not include consideration of the effects on the golden plover *Pluvialis apricaria* qualifying feature of the Humber Estuary Ramsar Site. NE noted that golden plover can travel 15 to 20km to use surrounding land for foraging. As the proposed development is within 20km of the Humber Estuary Ramsar Site, NE considered that any land that is frequently used by >1% of the Ramsar Site population of golden plover should be screened into the assessment.
- In its response to RR [REP1-028], the applicant stated that its updated HRA 2.1.5 Report provided further reasoning to support its decision to exclude impacts to passage and wintering golden plover from screening for LSE. [REP1-058A] considered this qualifying feature. It concluded that the closest section of the proposed development to the Humber Estuary Ramsar Site was 20.2km and lacked the primary habitat (saltmarsh and intertidal mudflats) that the feature requires. The applicant continued that these habitats were related more to the boundary of the Humber Estuary SPA, (identified as 30.1km from the proposed development) and referred to its surveys from 2022 and 2023 [APP-040] which identified only sporadic observations of golden plover flying over the order limits. The applicant concluded that functional habitat for golden plover was therefore well beyond the area where there could be a potential functional link with the Humber Estuary Ramsar Site and therefore the proposed development was unlikely to be providing foraging habitat for this qualifying feature and it was scoped out prior to the screening for LSE stage of the HRA.
- 2.1.6 In ExQ1 [PD-009, Q1.2.14], the ExA therefore asked NE to confirm whether it had further representations on this matter. NE [REP3-071] responded that it was satisfied that based on the reasoning above, that this qualifying feature could be screened out of further consideration.
- 2.1.7 This was also stated in the draft SoCG between the applicant and NE at DL3 [REP3-057].
- 2.1.8 Further to the responses received from NE on water quality matters [RR-208], the applicant's updated HRA report [REP1-058A] included consideration of an additional water quality impact-pathway to the sea and river lamprey qualifying features of the Humber Estuary SAC and Humber Estuary Ramsar Site during construction and decommissioning.
- 2.1.9 The applicant's responses to NE's further comments in relation to its assessment of LSE are addressed in section 2.5 of this RIES.

#### 2.2 In-combination effects

- 2.2.1 Section 5.4 of the HRA Report [APP-094] detailed the applicant's approach to assessing in-combination effects. The projects included in its in-combination assessment were detailed in table 8 of the HRA Report [APP-094] and their locations depicted on ES Figure 18-1 [APP-203].
- 2.2.1 Additional projects were identified by NE [RR-208] that should be considered in the applicant's in-combination assessment for all identified impact-pathways. These were:

- Great North Road Solar
- One Earth Solar Farm
- 2.2.2 The applicant's HRA Report supplied at DL1 [REP1-058A] therefore included an updated assessment of in-combination effects that included these two additional projects. The applicant's conclusions of no LSE in-combination with other plans or projects remained unchanged with the addition of these projects.
- 2.2.3 At DL3 NE [REP3-071] confirmed that it was satisfied with the applicant's updated conclusions with the inclusion of the One Earth Solar and Great North Road Solar projects. This was also confirmed as a matter agreed in the draft SoCG between the applicant and NE [REP3-057].
- 2.2.4 No further matters have been raised in relation to the applicant's incombination assessment of LSE in the course of the examination.

#### 2.3 The applicant's assessment

2.3.1 The applicant's conclusions in respect of screening are presented in section 6 of the HRA Report [REP3-006] and in the applicant's screening matrices [REP3-006, appendix A].

## Sites for which the applicant concluded <u>no LSE</u> on all qualifying features

- 2.3.2 The applicant concluded [APP-094, section 6] that the proposed development would not be likely to give rise to significant effects, either alone or in combination with other projects or plans, on the sea and river lamprey qualifying features of the following European site(s):
  - Humber Estuary SAC
  - Humber Estuary Ramsar Site.
- 2.3.3 The conclusions were not disputed by IPs but matters were raised in relation to the applicant's approach and were questioned by the ExA during the examination.

#### 2.4 Examination matters

2.4.1 Matters raised to date in relation to LSEs screened out and/ or not considered by the applicant are summarised in table 2.2 below.

Table 2.2: Issues raised in the Examination to date by the ExA and IPs in relation to the applicant's screening of LSEs (alone and in-combination)

ID	Potential impact pathway	Details of issue	ExA observation/ question
Humb	per Estuary SAC and	d Humber Estuary Ramsar Site	
2.1	Water quality impacts from construction silt on migratory river and sea lamprey – construction, decommissioning	NE [RR-208, NE3] noted that the applicant's assessment [APP-094] did not include consideration of the effects on migrating river and sea lamprey within the River Trent from construction silt, considering that there was potential for silt to cause a barrier to migration and/ or smothering of breeding habitat for these qualifying features. NE [RR-208] therefore requested the screening of impacts to river and sea lamprey from construction silt within the HRA.  NE also noted that a commitment to prepare a silt management plan was proposed within the applicant's framework Construction Environmental Management Plan (CEMP) but requested that where this was used to avoid impacts on lamprey qualifying features, that this should be set out in the applicant's HRA Report.  The applicant updated its HRA Report [REP1-058A] at DL1 to include consideration of this impact-pathway during construction and committed to the development of a silt management plan within the detailed CEMP. It stated however that the requirement for a silt management plan was in order to meet wider legislative requirements to avoid water quality impacts irrespective of the presence of a European site and as such, was not applied as mitigation specifically to address potential LSE on the SAC/Ramsar Site.	n/a

ID	Potential impact pathway	Details of issue	ExA observation/ question
		The applicant concluded [REP1-058A] that given the adequate delivery of measures to safeguard the general water environment there would be no LSE on the Humber Estuary SAC and Humber Estuary Ramsar Site from this impact-pathway.	
		The ExA [PD-009, Q1.2.14] asked NE to comment on the applicant's updated HRA report [REP1-058A] and conclusions of no LSE from this impact-pathway.	
		NE confirmed at DL3 [REP3-071] that it was satisfied with the conclusion of no LSE, taking account of the silt management plan avoiding silt pollution within watercourses. This was also confirmed in the draft SoCG between the applicant and NE at DL3 [REP3-057].	
		No further IPs commented on the applicant's conclusions of no LSE is matter during the course of the examination.	
2.2	Water quality impacts from construction bentonite on migratory river and sea lamprey - construction	NE [RR-208] also noted that the applicant's HRA Report [REP1-058A] did not include consideration of the effects on migrating river and sea lamprey within the River Trent from potential bentonite breakouts from Horizontal Directional Drilling (HDD) during cable laying. NE [RR-208] therefore requested the applicant screen in impacts to river and sea lamprey from bentonite used in HDD within the HRA Report and also requested inclusion of a Bentonite Management Plan within the detailed CEMP.	n/a
		The applicant's updated HRA report [REP1-058A] addressed this request. The measures already provided for bentonite management in the framework CEMP were amended [REP3-033] to include reference to a bentonite management plan. The applicant concluded [REP1-058A] that given the adequate delivery	

ID	Potential impact pathway	Details of issue	ExA observation/ question
		of measures to safeguard the general water environment there would be no LSE on the Humber Estuary SAC and Humber Estuary Ramsar Site from this impact-pathway.	
		NE confirmed at DL3 [REP3-071] that it was satisfied that impacts from construction and decommissioning to water quality from bentonite were suitably secured through the dDCO and this matter was marked as agreed in the draft SoCG between the applicant and NE [REP3-057].	
		No further IPs have commented on the conclusions of no LSE arising from this matter during the course of the examination.	
2.3	EMF barrier impacts to migratory fish – depth of cables - operation	NE, [RR-208, NE6] and the Canal and River Trust (CRT) [RR-036] requested clarity on the rationale behind the use of a 5m burial depth for the River Trent cable crossing.  In its response to relevant representations [REP1-028], the applicant stated that the reasons for the depths of the crossings were as set out in [AS-058] (Outline Design Principles Document). This states that trenchless crossings would be installed at 3m depth:  " with the exception of the River Till and the River Trent where cables will be installed at a minimum of 5m below the lowest surveyed point of the riverbed to prevent disturbance to fish species".	n/a
		In ExQ1 [PD-009, Q1.2.16] the ExA asked the applicant to further confirm whether the proposed 5m depth below the riverbed was applied as mitigation for effects specifically on qualifying features of the Humber Estuary both alone and in-combination with other	

ID	Potential impact pathway	Details of issue	ExA observation/ question
		plans and projects and with reference to People over Wind and Sweetman v Coillte Teoranta.	
		The applicant stated [REP3-062] that the wording in the updated Outline Design Principles Statement [REP3-030] had been amended to clarify that the primary reason for the buried depth of a minimum of 5m below the River Till and River Trent is to avoid the mobilisation of silt from the riverbed and the risk of scour exposing the cable, with a benefit of this depth being that it also effectively negates the potential for any impacts from EMF to fish species.	
		At DL3 NE [REP3-071] confirmed that it was satisfied with the explanation and consider the 5m depth to be suitably precautionary. Lincolnshire County Council [REP1A-001] [REP3-065] noted it had no reason to disagree with the applicant's conclusions of no LSE and was happy that the cable burial approach was consistent with other local proposals.	
		The CRT [RR-036] also noted that the applicant intended to use HDD to lay cables beneath the River Trent, requesting that the applicant amend its outline design principles document [APP-213] to state that the cables would be buried a maximum of 25m below the bottom of the riverbed and a minimum of 5m below the lowest surveyed point of the riverbed to prevent the risk of scour exposing the cable. The applicant subsequently amended this document as [AS-058]. The draft SoCG with the CRT [REP3-059] subsequently marked this matter as resolved with the principles for design of the	
		HDD included within the applicant's documents.  The applicant concluded that there was no potential for the proposed development to result in LSEs on the Humber Estuary	

ID	Potential impact pathway	Details of issue	ExA observation/ question
		SAC and Humber Estuary Ramsar Site regarding barriers to movement and/or displacement of qualifying features during operation.	
2.4	EMF impacts to sea lamprey and river lamprey – operation and monitoring	The EA [RR-093] noted the potential for EMF from cables buried beneath the River Trent on fish species in the river, considering it an emerging issue. It considered that there would be a low risk to migratory fish but requested that the applicant secure a programme of monitoring similar to the approach taken on other, consented, solar schemes (West Burton and Cottam). The EA also highlighted that it is in contact with Hull University to gain advice on a suitable monitoring programme.  In ExQ1 [PD-009, Q1.2.7], the ExA queried the applicant's approach of assessing the burial depth of the cable below the river in the lower water column near the bottom of the river. The ExA asked the applicant, NE and the EA, whether, given that migratory species can use the full depth of the water column, they would sense this risk and adjust accordingly.  NE [REP3-071] responded that it was satisfied with the approach to cable burial and consider that any increase in EMF activity in the lower portion of the water column would be unlikely to cause a significant effect upon lamprey populations. However NE acknowledged evidence gaps in this area and stated that the commitment to monitor effects to migratory fish (including lamprey) on the River Trent would be necessary and any identified impacts acted upon.  The EA [REP3-068] response to ExQ1 [PD-009, Q1.2.7] noted that	n/a
		it is possible that some fish will detect an EMF in the water which	

ID	Potential impact pathway	Details of issue	ExA observation/ question
		may create an invisible barrier and therefore the EA cannot currently advise that impacts would be avoided.	
		The draft SoCG with the EA [REP3-055] includes agreement from the applicant to contribute to a programme of EMF monitoring within the River Trent, secured through the framework Operational Environmental Management Plan (OEMP) [REP4-022]. The applicant's approach was also explained further in [REP3-063] stating that subject to agreement on the details with NE and the EA and any necessary consents from landowners such as the CRT, monitoring would continue for at least 3 years following commissioning of the first cable crossing.	
		The framework OEMP [REP4-022] also states that this contribution may be financial and is subject to agreement on the extent of the monitoring with the EA.	
		The draft SoCG [REP5-003] between the applicant and the EA notes details of this monitoring are ongoing but agrees that with the commitment within the OEMP for the applicant to take part in the monitoring secured through the DCO, the EA considers the details would be progressed outside the determination period of the DCO.	
		The ExA also identified [PD-009, Q1.2.16] the explanation provided in ES Chapter 17 [APP-048] from National Grid guidance on detectability of EMF, querying whether this evidence had relevance to the conclusions of potential LSE on migratory fish.	
		The applicant [REP3-062] did not respond directly to this point but stated that the burial depth was a design parameter that arose from previous solar projects. In its updated HRA Report at DL4 [REP3-006] the applicant maintained that there would be no LSE from this	

ID	Potential impact pathway	Details of issue	ExA observation/ question
		impact-pathway either alone or in-combination with other plans or projects.	
		Following these clarifications, no further matters have been raised in relation to this matter during the course of the examination.	

#### 3 CONCLUDING REMARKS

- 3.0.1 The applicant concludes that LSE can be excluded to the Humber Estuary SAC and Humber Estuary Ramsar Site. The ExA's understanding of the applicant's and NE's positions in relation to LSE matters is set out above.
- 3.0.2 This RIES is based on information submitted throughout the Examination by the Applicants and IPs, up to and including DL5 (25 February 2025) of the examination in relation to potential effects on European sites. It should be read in conjunction with the examination documents referred to throughout.
- 3.0.3 Comments on the RIES must be submitted for DL6 (1 April 2025).