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Your ref: EN010078

31 March 2022

Dear Mr McGrellis,

PLANNING ACT 2008: APPLICATION FOR DEVELOPMENT CONSENT FOR THE EAST ANGLIA TWO OFFSHORE WIND FARM

1 Introduction

- 1.1 I am directed by the Secretary of State for Business, Energy and Industrial Strategy ("the Secretary of State") to advise you that consideration has been given to the report dated 6 October 2021 of the appointed Examining Authority ("the ExA") – a panel comprising five members, Rynd Smith, Jon Hockley, Caroline Jones, Jessica Powis and Guy Rigby - which conducted an examination into the application ("the Application") submitted on 15 October 2019 by East Anglia TWO Limited ("the Applicant") for a Development Consent Order ("the Order") under section 37 of the Planning Act 2008 ("the 2008 Act") for the East Anglia TWO Offshore Wind Farm ("East Anglia TWO") and associated onshore and offshore development ("the Proposed Development"). The Application was accepted for examination on 22 November 2019.
- 1.2 The separate applications for an Order granting development consent for East Anglia ONE North and East Anglia TWO offshore wind farms were made and examined simultaneously with an ExA comprised of the same members for both East Anglia ONE North and East Anglia TWO. This enabled parallel examination processes under which common matters and issues were examined together and singular examination processes where distinct matters relevant to an individual application could be examined separately if required. The Secretary of State has decided each application for development consent on its own merits.
- 1.3 On 17 March 2020, in response to the Coronavirus (COVID-19) pandemic, the start of the examination was postponed. The Secretary of State notes that the examination has been conducted by the ExA in the challenging times of the COVID-19 pandemic when the

Government introduced public health measures including a ban on large public meetings and a direction for people to stay at home as much as possible. He notes that the Planning Inspectorate and the ExA made best endeavours to ensure that no person or party was disadvantaged in participating in the examination process. After measures had been put in place by the Planning Inspectorate to enable participation via virtual events, the examination began on 7 October 2020. All meetings and hearings were conducted as virtual events. Amended site inspection arrangements were made using a procedure to reflect Coronavirus public health controls. The Secretary of State granted a three-month extension to the examination period announced via a Written Ministerial Statement¹, and the examination was completed on 6 July 2021 after a period of nine months.

- 1.4 The Order would grant development consent for the construction, operation, and maintenance of an electricity generating station comprising an offshore wind farm power station with up to 75 wind turbine generators, together with up to four offshore electrical platforms, an offshore construction, operation and maintenance platform, a meteorological mast, inter-array cables linking the wind turbine generators to each other and to the offshore electrical platforms, platform link cables and up to two export cables to take the electricity generated by the wind turbine generators from the offshore electrical platforms to landfall.
- 1.5 The onshore works would comprise of the construction and operation of landfall connection works north of Thorpeness in Suffolk, underground cables running from landfall to a new onshore substation located at Grove Wood, Friston, Suffolk, together with a new National Grid substation and National Grid overhead line realignment works including the reconstruction and/or relocation of up to three pylons, construction of up to one additional pylon, and the construction of up to three permanent sealing end compounds.
- 1.6 Published alongside this letter on the Planning Inspectorate's National Infrastructure Planning website² is a copy of the ExA's Report of Findings and Conclusions and Recommendation to the Secretary of State ("the ExA's Report"). The ExA's findings and conclusions are set out in Chapter 5-30 of the ExA Report, and the ExA's summary of conclusions and recommendation is at Chapter 31.
- 1.7 The principal issues considered during the examination on which the ExA has reached conclusions on the case for development consent are set out in the ExA Report under the following broad headings:

Initial Analysis

- Need

Planning Issues: Onshore

- Flooding and Drainage
- Landscapes and Visual Amenity
- Onshore Historic Environment
- Seascapes
- Onshore Ecology

¹ <https://hansard.parliament.uk/Commons/2021-05-12/debates/11fb23b0-9653-4569-93d7-f40bdac0939f/WrittenStatements#contribution-66A0AB52-3AD9-417B-955E-228F254B26B7>

² <https://infrastructure.planninginspectorate.gov.uk/projects/eastern/east-anglia-two-offshore-windfarm/>

- Coastal Processes
- Onshore Water Quality & Resources
- Noise, Nuisance and Health Effects
- Transport & Traffic
- Socio-economic Effects Onshore
- Land Use
- Other Onshore Matters

Planning Issues: Offshore

- Offshore Ornithology
- Marine Mammals
- Other Offshore Biodiversity Effects
- Marine Physical Effects and water quality
- Offshore Historic Environment
- Offshore Socio-economic and Other Effects

Habitats, Overarching Analysis, Compulsory Acquisition, Temporary Possession and Development Consent Considerations

- Habitats Regulations Assessment
- Alternatives and Site Selection
- Good Design
- Compulsory Acquisition and Related Matters
- The Draft Development Consent Order and Related Matters

- 1.8 The ExA's recommendation is that the Secretary of State should make the Order in the form attached to its Report.

2 Summary of the Secretary of State's Decision

- 2.1 Section 104(3) of the 2008 Act requires the Secretary of State to decide the Application in accordance with any relevant National Policy Statement ("NPS"). The Secretary of State has carefully considered the ExA's Report and all other material considerations, including further representations received after the close of the ExA's examination ("the post-examination representations"). The Secretary of State has decided under section 114 of the 2008 Act to make, with modifications, an Order granting development consent for the proposals in the Application. This letter is a statement of the reasons for the Secretary of State's decision for the purposes of section 116 of the 2008 Act and the notice and statement required by regulations 31(2)(c) and (d) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 ("the 2017 Regulations").

3 The Secretary of State's Consideration of the Application

- 3.1 The Secretary of State's consideration of the ExA's Report and the post-examination representations is set out in the following paragraphs. All numbered references, unless otherwise stated, are to paragraphs of the ExA's Report ["ER *.*.*"].
- 3.2 The Secretary of State has had regard to the Joint Local Impact Report ("LIR") submitted by East Suffolk Council and Suffolk County Council [ER 1.4.46], environmental information as

defined in Regulation 3(1) of the 2017 Regulations and to all other matters which are considered to be important and relevant to the Secretary of State's decision as required by section 104 of the 2008 Act, including relevant NPSs. The Energy White Paper, *Powering Our Net Zero Future*, was published on 14 December 2020 [ER 3.7.1]. It announced a review of the suite of energy NPSs but confirmed that the current NPSs were not being suspended in the meantime. The review of the energy NPS suite is currently underway and draft versions of the new NPSs were subject to a consultation which closed on 29 November 2021. The transitional guidance in the consultation paper makes clear that the assessment of and decision-making about Nationally Significant Infrastructure Projects ("NSIP") applications in progress, should continue to be made with reference to the currently designated NPS suite which remain in force and therefore remain the basis for the Secretary of State's consideration of the Application.

- 3.3 Although the new NPSs are in draft form and have not been designated, the Secretary of State considers them to be important and relevant for the purpose of section 104 of the 2008 Act. As such, the Secretary of State has had regard to the draft energy NPSs in deciding the Application but does not consider that there is anything contained within the drafts of the relevant NPS documents that would lead him to reach a different decision on the Application. In making the decision, the Secretary of State has complied with all applicable legal duties and has not taken account of any matters which are not relevant to the decision.
- 3.4 832 Relevant Representations were made in respect of the Application and East Anglia TWO collectively or to East Anglia ONE North alone by statutory authorities, non-statutory authorities, businesses, non-governmental organisations, individuals, and representative bodies, of these, 87 Relevant Representations related solely to East Anglia ONE North and are not relevant to East Anglia TWO [ER 1.4.41]. Written Representations, responses to questions and oral submissions made during the examination were also taken into account by the ExA. Unless indicated otherwise in the paragraphs below, the Secretary of State agrees with the findings, conclusions and recommendations set out in the ExA's Report, and the reasons for the Secretary of State's decision are those given by the ExA in support of his conclusions and recommendations.
- 3.5 Following receipt of the ExA's Report, the Secretary of State identified a number of issues upon which further information or clarification was required, and a consultation letter was issued to Interested Parties for both East Anglia ONE North and East Anglia TWO applications on 2 November 2021³. A further consultation letter was issued on 20 December 2021⁴, and as a result, the Secretary of State set a new deadline for the decisions to be made of 31 March 2022. The responses to the consultations have been incorporated into this decision letter in the relevant sections and have informed the Secretary of State's final decision on this Application.

³ https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-007824-EA2_consultation_letter_November_21.pdf

⁴ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-007950-EA2%20BEIS%20Consultation%202%20Holding%20Letter.pdf>

Need for the Development

- 3.6 The Secretary of State notes that the Application is a NSIP as defined in sections 14 and 15 of the 2008 Act by virtue of being an offshore generating station with a generating capacity of greater than 100 MW.
- 3.7 The ExA noted that paragraph 3.1.4 of the Overarching National Policy Statement for Energy (EN-1) (“NPS EN-1”) ascribed substantial weight to the contribution that the development would make towards satisfying the need in the NPS [ER 5.2.1], and that section 3.4 of the NPS identified a strong need case for renewable electricity generation to assist in the reduction of UK CO₂ emissions and to mitigate climate change [ER 5.2.2]. The ExA noted that subsequent recommendations, policy, and legislation have updated the relevant targets to a point where the Proposed Development would help to meet a greater need than that originally envisaged by the NPS [ER 5.2.7]. The ExA noted that the direction of policy was clearly in favour of the need for additional renewable electricity capacity over and above that set out in NPS EN-1 and the policy and needs assessment in the Applicant’s Environmental Statement (“ES”) [ER 5.2.9], and the Applicant updated its position at Issue Specific Hearing 2 to reflect this [ER 5.3.3].
- 3.8 The ExA noted that concerns from Interested Parties about the policy framework were principally related to questions about the effects, rather than the principle, of onshore development [ER 5.4.2]. The Secretary of State considers issues that were raised in relation to the onshore grid connection under the heading “Grid Connection” below.
- 3.9 The ExA considered that although NPS EN-1 is old, that no considerations pursuant to subsequent policy change and capable of consideration under section 104(2)(d) of the 2008 Act indicate anything other than that carbon and climate considerations are principal matters to be accorded high positive weight [ER 5.5.2].
- 3.10 The ExA concluded that the Proposed Development accorded with the guidance in the Overarching NPS for Energy (NPS EN-1), NPS for Renewable Energy (NPS EN-3); and the NPS for Electricity Networks Infrastructure (NPS EN-5) [ER 5.5.5].

The Secretary of State’s Conclusion

- 3.11 The Secretary of State agrees with the ExA that substantial weight should be attributed to the contribution that the Proposed Development would make towards meeting the national need demonstrated by NPS EN-1 and the substantial contribution it would make towards the delivery of renewable energy, ultimately assisting with the decarbonisation of the economy in line with the UK’s legal obligations in the Paris Agreement under the United Nations Framework Convention on Climate Change and the Climate Change Act 2008 (as amended).
- 3.12 The Secretary of State agrees with the ExA that the Proposed Development would accord with NPS EN-1, NPS EN-3 and NPS EN-5.

Grid Connection

- 3.13 The ExA makes no observations on policy that it could not review before the close of the examination [ER 5.2.14].
- 3.14 The Applicant considered that the Offshore Transmission Network Review (“OTNR”) bears on the means by which connections might be made and not on the principle of use and development, and highlighted the requirement within NPS EN-3 that applicants have to work within the regulatory regime established by Ofgem (paragraph 2.6.34) and that unless the regime formally changes prior to the decision on this Application that it is entitled to

consideration without weight being given to the prospective content of the OTNR [ER 5.3.4]. Interested Parties were concerned about whether the Applicant had been sufficiently adaptable to the possibility of policy changes, the possibility of sharing a transmission connection with the other project, and that the Applicant had not sought to adapt the onshore transmission connections to meet concerns emerging from the OTNR [ER 5.4.2].

- 3.15 In relation to concerns about the impacts of onshore infrastructure, the ExA considered it important to form a view on the degree to which the Applicant might reasonably be expected to coordinate the transmission connections of East Anglia ONE North and East Anglia TWO to address issues emerging from the Department for Business, Energy & Industrial Strategy's OTNR that proposed offshore developments might develop innovative 'pathfinder' approaches to transmission connection design and development [ER 5.4.3]. The ExA invited Ofgem to attend Issue Specific Hearing 2, where Ofgem explained that it did not think that East Anglia ONE North and East Anglia TWO, along with other projects already in the planning process, are likely to be impacted by the OTNR, and that it did not consider that this position was changed by the publication of the Energy White Paper [ER 5.4.4].
- 3.16 The ExA noted that it was not widely raised that onshore impacts and/or failure to adopt an innovative 'pathfinder' approach could be sufficient to outweigh the carbon and climate benefits entitling refusal under section 104(7) of the 2008 Act, and concluded that the carbon and climate benefits were sufficiently weighty in and of themselves that they, and the degree to which they accord with policy in NPS EN-1 and NPS EN-3 remain as matters of great weight in favour of consenting the Proposed Development [ER 5.5.3].
- 3.17 In relation to the argument advanced in favour of a "split decision" where only the offshore elements of the Proposed Development would be consented, the ExA preferred the reasoning of the Applicant to those of Interested Parties, whilst noting the weighty harm from the onshore elements individually and cumulatively, and that the Applicant was unable or unwilling to address the emerging policy framework whilst the ExA recognised the constraints of project planning [ER 5.5.4].
- 3.18 At the end of the examination period, the ExA noted that the current policy framework remains as set in NPS EN-1, NPS EN-3, and NPS EN-5; that the NPS review has been published for comment, but not designated, and that the transitional guidance reinforced the need for a decision to be made within the framework of designated policy; and that there were no concrete final outcomes from the OTNR in this context [ER 5.5.5]. The ExA found that the Applicant's position in relation to the OTNR holds good, and that the East Anglia ONE North and East Anglia TWO developments were entitled to be evaluated under the policy framework that was in place rather than the prospect of a new one, and that the great weight to be accorded to delivering substantial and timely carbon and climate benefits also weighed in favour of not taking split decisions driven by other elements of further possible policy changes [ER 5.5.5].
- 3.19 The ExA noted that the position remains dynamic, noting that the consultation on the Energy NPSs is clear that the existing NPSs continue to apply for decision-making purposes, that no emerging policy counterbalances against the weighty carbon and climate benefits of the Proposed Development as a whole, or provides any reason to split any element in a way that might risk slowing delivery, that the harms from onshore impacts or failure to coordinate East Anglia ONE North and East Anglia TWO were not sufficient to outweigh the carbon and climate benefit, or to justify a split decision, and that the policy framework supports immediate delivery [ER 5.5.6]. The Secretary of State notes that the ExA highlighted that

any relevant policy changes or OTNR outcomes should be consulted on with Interested Parties and that its findings should be re-evaluated as required [ER 5.5.6].

Post-examination Correspondence and Consideration

- 3.20 The Secretary of State received a significant number of consultation responses arguing that account should be taken of the OTNR, and additionally that the Secretary of State should either refuse the entire Development ahead of the outcome of the OTNR, to consent only the offshore elements so that a connection could be sought as a “Pathfinder” project through the OTNR or defer the application pending the outcome of the OTNR. As work on the OTNR has continued since the examination closed, the Secretary of State has considered this issue carefully.
- 3.21 In dealing with these responses the Secretary of State considers it helpful to set out the progress of the OTNR to date. On 24 August 2020 the Department for Business, Energy & Industrial Strategy (“BEIS”) and Ofgem published a joint letter *“Increasing the level of coordination in offshore electricity infrastructure”*⁵, inviting suggestions on how barriers to coordination of transmission assets could be overcome. Responses were published in a joint BEIS/Ofgem document on 18 December 2020, which identified three workstreams, the most important of which for the Proposed Development is “Early opportunities” which would *“look at projects that are already in relatively advanced stages of development and consider whether there are flexibilities or minor changes to regulations that could allow them to take a more coordinated approach under the current regime.”*⁶
- 3.22 The first formal consultation was conducted by Ofgem between 14 July and 8 September 2021. In relation to Early Opportunities, the document was clear that *“Ofgem’s proposals are focussed on facilitating coordination of offshore transmission infrastructure with an opt-in for developers, rather than enforcing coordination. We recognise that these projects are at an advanced stage of development where much of the detailed design and planning work has already been completed.”*⁷ It further notes *“changes to ongoing projects especially those far along in the development process can carry substantial risk to project success.”*⁸ It continues *“Therefore, the introduction of any form of coordination will be a balancing act between maintaining the pace of delivery required to meet 40GW by 2030 and introducing changes as soon as practically possible to maximise social, economic and environmental benefits.”*⁹ *“Given the long lead times for constructing offshore wind farms, many projects connecting ahead of 2030 are already in-flight and relatively advanced in their development. Introducing changes to such projects risks delaying them and carries contractual and commercial implications, and consequently might impact our ability to meet 2030 targets. The OTNR therefore seeks to strike the right balance between delivering coordination in how offshore wind is connected and maintaining the required pace of delivery to achieve Government ambitions.”*¹⁰

⁵ <https://www.gov.uk/government/publications/increasing-the-level-of-coordination-in-offshore-electricity-infrastructure-beis-and-ofgem-open-letter>

⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/949510/Open_Letter_Response_Final.pdf

⁷ <https://www.ofgem.gov.uk/publications/consultation-changes-intended-bring-about-greater-coordination-development-offshore-energy-networks> at page 2.

⁸ Paragraph 1.6.

⁹ Paragraph 1.7.

¹⁰ Paragraph 1.15.

- 3.23 Whilst the OTNR is exploring early opportunities for coordination from projects connecting between 2025-2030, it is not intended to automatically apply to applications for development consent which are currently in the planning system, although any project that has a grid connection but has yet to secure both planning consent and a Contract for Difference is considered to be within scope of the OTNR Early Opportunities workstream¹¹. Existing policy will continue to apply to such applications. The Secretary of State notes that NPS EN-3 states *“When considering grid connection issues, the [Secretary of State] should be mindful of the constraints of the regulatory regime for offshore transmission networks”* (para 2.6.36). The Secretary of State considers that the offshore transmission proposal for the Proposed Development has been brought forward in line with the existing regulatory regime. The Secretary of State considers therefore that he should continue to assess the Proposed Development in line with current policy as set out in the NPSs.
- 3.24 After careful consideration the Secretary of State has concluded that refusing the entire Proposed Development or the onshore transmission element would not be appropriate. The proposed onshore transmission element complies with current policy and regulatory regime, and the OTNR does not require live applications to be deferred pending its outcome. The Secretary of State does not consider that his decision should be deferred or that the onshore elements should be refused pending the outcome of the OTNR. The Secretary of State has therefore decided to accord limited weight to the OTNR against granting the Proposed Development.

4 Flooding and Drainage

- 4.1 The ExA notes [ER 6.2.1] that NPS EN-1 sets out the aims of planning policy on development and flood risk are to ensure that flood risk from all sources is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding and that preference should be given to locating projects in Flood Zone 1 in England. With regards to construction, NPS EN-1 states that the decision maker will need to be satisfied that the proposed drainage complies with any National Standards and that the Development Consent Order makes provision for the adoption and maintenance of Sustainable Drainage Systems.
- 4.2 NPS EN-1 further notes [ER 6.2.2 et seq.]:
- the requirements for completing a Flood Risk Assessment (“FRA”);
 - that to satisfactorily manage flood risk, arrangements are required to manage surface water and the impact of the natural water cycle on people and property;
 - surface water drainage systems should cope with events that exceed the design capacity of the system; and
 - volumes and peak flow rates of surface water leaving the site can be no greater than the rates prior to the proposed project.
- 4.3 The ExA notes that the National Planning Policy Framework (“NPPF”) echoes NPS EN-1 with regards to:
- ensuring flood risk is considered at all stages;
 - avoiding inappropriate development in areas at risk of flooding; and

¹¹ National Grid Electricity System Operator Open Letter on the Offshore Transmission Network Review, 27 September 2021 - <https://www.nationalgrideso.com/document/211251/download>.

- to direct development away from areas at risk of flooding.
- 4.4 The ExA notes [ER 6.2.5] that the NPPF directs development away from areas at highest risk of flooding via the application of the Sequential Test. If, following application of the Sequential Test, it is not possible for the project to be located in zones with a lower probability of flooding; the Exception Test can be applied if appropriate. The revised NPPF comprises a change in approach regarding the Sequential Test which should now take account of all sources of flooding.
- 4.5 The ExA also notes [ER 6.2.7] the relevant policies within the Suffolk Coastal Local Plan and the Suffolk Flood Risk Management Strategy which include:
- ensuring appropriate flood risk measures which include the effects of climate change are incorporated into projects to protect the site during the construction, operation and decommissioning phases;
 - proposals will not be permitted in areas at high risk of flooding (i.e. Flood Zone 2 & 3) unless the applicant has satisfied the safety requirements in the Flood Risk Planning Practice Guidance (“PPG”)¹² and emphasises that developments should be safe, resilient and not increase flood risk elsewhere;
 - developments should utilise Sustainable Drainage Systems (“SuDS”), the policy sets out design requirements for their creation;
 - prevent an increase in flooding as a result of new development by ensuring SuDS are properly considered and incorporated into works; and
 - that planning decisions should be made on up-to-date information about flood risk.

The Applicant’s Case

- 4.6 The Applicant’s assessment [ER 6.3.3] stated that the majority of the onshore development is located within an area of low flood risk (Flood Risk Zone 1). It notes that the Environment Agency’s flood modelling is confined to main rivers and does not consider flood risk along Ordinary Watercourses, as such, the areas of increased flood risk could extend northwards beyond the Main River limit. However, this was taken into account in the Applicant’s assessment.

Flood Risk Assessment

- 4.7 The Applicant’s FRA considered [ER 6.3.5 et seq] that the Sequential Test has been applied in accordance with the NPPF and PPG, as the Proposed Development is considered ‘Essential Infrastructure’, which is located within Flood Zones 1 and 2 and is deemed acceptable.
- 4.8 The Applicant considers that the Proposed Development has been sequentially located wherever possible. Above ground compounds/structures would be located within Flood Zone 1, and subterranean development located primarily in Flood Zone 1, with some locations in Flood Zone 2 and 3 where it would be required to pass under existing watercourses.
- 4.9 The Applicant considers that the sequential approach it has adopted, and the wider benefits associated with the provision of renewable energy ensures that the Proposed Development is in accordance with the guidance related to the Sequential and Exception Test.

¹² <https://www.gov.uk/guidance/flood-risk-and-coastal-change>

Construction Flood Risk

- 4.10 The Applicant concludes [ER 6.3.9 et seq.] that the potential for impacts associated with changes to surface water runoff and flood risk during construction would be reduced by reinstating existing land drains along the onshore cable route and at the onshore substation. They also note the provisions within the pre-construction Surface Water Drainage Management Plan to minimise water within the working area and ensure ongoing drainage of the surrounding land. The ES concludes that, following mitigation, the residual impact resulting from the increase in surface water runoff and flood risk during construction would be minor adverse in the Hundred River, Leiston Beck and Friston watercourse catchments and underlying groundwater. The ES identified no impacts on surface water receptors in the coastal fringe.

Operational Flood Risk

- 4.11 The ExA noted that the Applicant's [ER 6.3.11 et seq.] Surface Water Drainage Plan would include details of SuDS which would as a minimum provide storage up to and including a 1 in 100 year storm event and a 20% allowance for climate change. In addition to this, the ES states that the attenuation pond for the onshore substation would be designed to accommodate a 1 in 200 year flood event. The Applicant considered that these measures would provide a betterment in terms of runoff from the site and concluded that the residual impact resulting from the increase in surface runoff and flood risk would therefore be minor adverse in the Hundred River, Leiston Beck and Friston Watercourse catchments. The Applicant also proposed [ER 6.3.16] several measures to reduce the impacts associated with surface water runoff and flood risk in addition to the embedded mitigation measures outlined above.

Cumulative Impact

- 4.12 For both the construction and operational phases of the project, the ES concludes that the cumulative impact would not increase from the minor adverse effect anticipated to occur from the Proposed Development alone. During decommissioning, the ES concludes that impacts no greater than those identified for the construction phase are expected.

Planning Issues

- 4.13 The Suffolk County Council ("SCC") and East Suffolk Council ("ESC") joint LIR [ER 6.4.1] raised the implications for flood risk in the locality as a key issue. It was also raised by many Interested Parties in their Relevant Representations and in post examination representations. In particular, the flood risk posed to the village of Friston during construction and operation was a matter of great concern for the local community including Friston Parish Council and the local action group Substation Action Save East Suffolk ("SASES") who engaged throughout the examination on this matter. The LIR noted that Friston village has been subject to surface water flooding on several occasions, with a notable event in October 2019 which flooded several properties.

Adequacy of Assessment

- 4.14 SCC as the Lead Local Flood Authority accepted [ER 6.4.4] that the production of the FRA satisfied the policy requirements of the local plan but raised the issue that the existing Environment Agency national mapping for surface water risk was not representative of the flow paths which resulted in the flooding of properties in Friston in 2019. Subsequently, in June 2020 (during the examination period) SCC commissioned the production of a Surface

Water Management Plan for the Friston area, it was SCC's and SASES' opinion that this should be considered during the examination.

4.15 SASES raised a number of concerns regarding the methodology utilised for assessing flood risk including:

- the Applicant had failed to apply the Source-Pathway-Receptor principle to the village of Friston;
- they considered no attempt had been made to assess the flood receptors in the village of Friston and the Applicant had relied on secondary data to assess floodwater pathways;
- that both peak and total flows leaving the proposed substation site had not been considered;
- that there was a fundamental failure to apply the Sequential Test as the Red, Amber Green site selection process did not consider pluvial flooding and that the Proposed Development should be regarded as having failed to apply the Sequential Test;
- other sites are available which are not at risk of flooding which would have been suitable for the substation site; and
- the absence of a baseline hydrological assessment was a key issue raised by SASES and SCC.

Flood Risk During Construction

4.16 A Surface Water Drainage Management Plan and Flood Management Plan would be produced as part of the final Code of Construction Practice. The proposed control measures are set out in the Outline Code of Construction Practice ("OCoCP") which was amended during the course of the examination following comments from Interested Parties and discussions within the Issue Specific Hearings.

4.17 Due to the large area of the substation site [ER 6.4.13], and the construction methods which would be employed, SCC considered that there would be a more significant surface water flood risk at the substation site than along the cable route corridor.

4.18 SCC were of the opinion that there should be no increase in offsite surface water flood risk up to and including the 1 in 100 year rainfall event during construction and that the 1 in 30 year rainfall event must be retained within the surface water system. SCC stated that this would be in accordance with the DEFRA Non-Statutory Technical Standards which had been applied to the operational phase.

4.19 In response to the concerns raised [ER 6.4.15], the Applicant submitted an example of how surface water and sediment could be controlled during construction in an updated version of the OCoCP. However, SCC and SASES considered this to be inadequate as it was not supported by further information. Subsequently, the ExA requested [ER 6.4.17] that the Applicant provide indicative drawings to demonstrate that the proposed mitigation measures were capable of being accommodated within the Order Limits. A further revised OCoCP was submitted which presented a surface water drainage scheme which could accommodate a 1 in 15 year storm event at the substations site and a 1 in 10 year storm event for the onshore cable route.

4.20 SCC agreed [ER 6.4.18] with the majority of the assumptions for the design of the construction phase surface water drainage but maintained that the use of a 1 in 15 return rainfall period event at the substation site would be inadequate as it represented an increase

in surface water flood risk to the residents of Friston. As a result of this, SCC did not agree with the Applicant that the residual impacts would be minor adverse.

Flood Risk during Operation

- 4.21 The LIR highlighted that no infiltration testing has been undertaken contrary to local policy and that the Councils considered that infiltration might be feasible. Both SCC and SASES stated that if infiltration was achievable and viable then this must be pursued as a priority, in accordance with local and national policy. In response to the concerns raised, the Applicant conducted infiltration testing at the site. SCC considered that the testing was sufficient, however, SASES [ER 6.4.25 et seq.] still had several issues with regards to the proposed mitigation and the methodology used both for the infiltration testing and more generally for the FRA.

Examining Authority's Response

- 4.22 SCC and the Environment Agency [ER 6.5.1] agreed in their final Statement of Common Ground ("SoCG") that, at the time of submitting the application, the ES and FRA adequately characterise the baseline environment in terms of flood risk. The ExA considered [ER 6.5.2] that at the time of submission, the FRA complied with the requirements set out in NPS EN-1 and other relevant policy and guidance documents.

Updates to the National Planning Policy Framework

- 4.23 In the FRA, the Applicant considered that the Proposed Development had been sequentially located wherever possible and was in accordance with the guidance related to the Sequential and Exception Test within the NPPF and PPG.
- 4.24 During the examination, the Applicant submitted a Flood Risk and Drainage Clarification Note which stated that as the proposed works (substations site) are all in Flood Zone 1, they automatically satisfied the requirement of the Sequential Test as there is no lower zone classification areas that could be utilised and that the residual flood risk from surface water was not covered by the flood zones for planning purposes.
- 4.25 Shortly after the examination closed, the revised NPPF was published in July 2021, it clarifies that the sequential approach and tests should now take account of all sources of flood risk when allocating or permitting development. The inclusion of all sources of flooding means that the need for a Sequential Test may now be triggered if a site is located in an area at high risk of surface water or groundwater flooding. The ExA [ER 6.5.5] considered that on the basis of the evidence before it, Friston should be considered an area at high risk of surface water flooding.
- 4.26 The ExA noted that at the time of writing the report, guidance on applying the Sequential Test within the PPG has not been updated to reflect the change within the NPPF, with guidance on the application of the tests focussed upon flood zones associated with river and sea flood risk. As the update to the NPPF occurred following the close of the examination, the ExA could not conclude whether the Proposed Development satisfactorily passes the Sequential or Exception Test. As a result, the ExA suggested that the Secretary of State may wish to consult on the changes to the NPPF and the update to climate change allowances for Flood Risk Assessments.

4.27 The Secretary of State consulted on the issue of updates to the NPPF on 2 November 2021¹³ and 20 December 2021¹⁴, the key responses are summarised below:

- **SCC (the Lead Local Flood Authority)** – the changes to the NPPF would require the Applicant to undertake a Sequential Test, and if necessary, an Exception Test. However, SCC acknowledge that as the PPG has not been updated, it is not clear how the Sequential and Exception Tests would be applied.
- **ESC** – states that the reference in the updated NPPF has the potential to have important implications for the East Anglia ONE North and East Anglia TWO projects. However, they also acknowledge that as the PPG has not been updated, it is not clear how the Sequential and Exception Tests would be applied.
- **SASES** – consider that it is clear from the Applicant's submissions that surface water and ground water were not taken into account during the site selection process and, consequently, the Sequential test was not properly applied. Additionally, SASES consider that the updates to the NPPF do not impose any new policy requirement but rather reinforce the existing requirements. SASES also reiterated that they considered the infiltration testing conducted by the Applicant was insufficient and had concerns about the Applicant's approach to applying the Sequential Test. Overall, SASES considered that because of the defects of the Applicant's approach, that policy requirements had not been met.
- **The Applicant** – acknowledges that the updated NPPF is more explicit in the use of the term 'any source' of flooding but note that the criteria for the assessment and application of the Sequential Test remains unchanged, and that the PPG does not provide any criteria for the assessment of suitability of a location to determine whether a development is appropriate or not. The Applicant also highlighted:
 - (i) they have considered all sources of flooding in the design of the Proposed Development;
 - (ii) the substation site and National Grid infrastructure have been located in an area at low risk of surface water flooding;
 - (iii) appropriate mitigation measures have been adopted to address any remaining surface water flood risk concerns;
 - (iv) SCC had already given surface water flooding equal weighting when reviewing the Proposed Development's assessment of flood risk throughout the examination;
 - (v) that the emphasis in the updated NPPF to move away from hard engineered flood solutions is not considered by the Applicant to be a fundamental change that would alter their proposed drainage strategy or adoption of SuDS measures;
 - (vi) that the extensive landscape planting proposed would reduce the speed of surface water runoff compared to that currently experienced, as well as soil erosion and silt levels in runoff;

¹³ https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-007824-EA2_consultation_letter_November_21.pdf

¹⁴ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-007950-EA2%20BEIS%20Consultation%202%20Holding%20Letter.pdf>

- (vii) modelling undertaken for the Friston Surface Water Flood Study¹⁵ confirms that surface water flooding within Friston primarily results from surface water flow from a number of locations unrelated to the substation site; and
- (viii) by attenuating surface water and ensuring a controlled discharge rate from the site there is no increase in flood risk to the surrounding area, specifically Friston.

4.28 The Secretary of State notes that all sources of flooding have been considered by the Applicant in the design of the Proposed Development, he also notes the surface water mitigation measures which the Applicant has proposed to address flood risk concerns. Furthermore, the Secretary of State has considered all the consultation responses relevant to the NPPF updates and, noting that the guidance on how the Sequential Test should be applied in respect of all sources of flooding has not been updated, is satisfied that the Applicant has (as it is currently defined) applied the Sequential Test as part of site selection. As such, the Secretary of State considers that the FRA is appropriate for the Application.

Updates to Climate Change Allowances

4.29 The Environment Agency issued an update to climate change allowances for FRAs on 20 July 2021, updating the peak river flow allowances and changing the guidance on how to apply peak river flow allowances. The Secretary of State also consulted on this issue and received the following key responses:

- **Environment Agency** – highlighted that as the Application was submitted prior to the release of the updated climate change allowances, that it is appropriate for the previous allowances to be used.
- **The Applicant** - The updated climate change allowances have already been applied within the Outline Operational Drainage Management Plan (during post submission consultation) and, subsequently, have no implications for the Proposed Development.

4.30 The Secretary of State is satisfied that the updated climate change allowances do not have an impact on the Proposed Development.

Flood Risk During Construction

4.31 The ExA agreed [ER 6.5.18] with SCC that the principles contained within the OCoCP are generally acceptable to manage surface water risk during construction but were concerned about the discrepancy between the Applicant's proposed design capacity for the management of surface water and that which SCC asserted was necessary. The Applicant proposed a design capacity for a 1 in 15 year flood event at the substations site and a 1 in 10 year event for the onshore cable route. SCC requested that a 1 in 100 year return period be implemented across the onshore works. However, the Applicant considered that this would be excessive given the construction programme of up to 48 months at the substations site and 24 months for the cable route and that the provision of a temporary drainage system would enhance the site's drainage capacity.

4.32 The ExA acknowledged [ER 6.5.20] that there are currently no prescribed standards for the provision of construction drainage and that due to the construction period, that it would not necessarily be unreasonable to assume a design capacity with a return period different to that proposed for operation. However, the ExA considered the high risk of surface water flooding in Friston and accepted SCC's view that residents should not be exposed to an increase in surface water flooding during the construction phase when compared to the

¹⁵ <https://www.greensuffolk.org/app/uploads/2021/05/Friston-Flood-Study-Report2.0.pdf>

operation phase. Although this matter was discussed at length throughout the examination, it remained unresolved. The ExA was unable to conclude [ER 6.5.23] that the construction drainage would be satisfactory and suggested that the Secretary of State may wish to consult with SCC.

4.33 The Secretary of State consulted on the issue of surface water drainage during the construction period on 2 November 2021¹⁶ and 20 December 2021¹⁷, the key responses are summarised below:

Flood Risk During Construction: First Round of Consultation – 2 November 2021

- **Environment Agency** – declined to comment on the sufficiency of the surface water management proposals and deferred to SCC as the Lead Local Flood Authority. The Environment Agency confirmed that they were satisfied with the measures outlined to protect water quality.
- **The Applicant** – was requested by the Secretary of State to provide details of how it may be able to increase the return period capacity of the surface water drainage scheme during construction. The Applicant responded with the following points:
 - (i) **Cable Route** – the Applicant maintained that increasing the return period for cable route was unnecessary as most of the route corridor crosses “*rural, agricultural land where the impacts associated with flooding are likely to be less than in residential locations*”.
 - (ii) **Substations Site** – the Applicant recognised the sensitivity around flood risk within the local communities and committed to increasing the capacity of the surface water drainage scheme to enable it to accommodate a 1 in 30 year flood event at the substations site. The Applicant suggested this could be secured by an amendment to requirement 22 of the Order. The Applicant highlighted that SCC and ESC had agreed in their SoCG: “*flood events in the Friston area, resulting from overland flow, that occurred during late 2019 – early 2020 was a result of multiple flow paths and not a direct result of surface water runoff from land associated with the proposed site of the onshore substation or the National Grid infrastructure*”.
- **SCC** – reiterated their disagreement with the Applicant’s original proposal of a 1 in 15 return period at the substations site and a 1 in 10 return period along the cable corridor. SCC raised concerns that the Applicant had not demonstrated the deliverability of the surface water management plan but highlighted that they agreed that the operational drainage management plan provided adequate mitigation.
- **SASES** - stated that the Applicant had failed to understand the difference in the flood risk posed by the construction phase and subsequently had failed to demonstrate the adequacy of construction phase flood risk management measures.

Flood Risk During Construction: Second Round of Consultation – 20 December 2021

- **SCC** – raised several issues with the Applicant’s response to the first round of consultation and emphasised the lack of detail provided by the Applicant on the deliverability of the proposed mitigation. SCC welcomed the Applicant’s proposal to increase the return period of the construction drainage scheme but maintained that they

¹⁶ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-007950-EA2%20BEIS%20Consultation%202%20Holding%20Letter.pdf>

¹⁷ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-007950-EA2%20BEIS%20Consultation%202%20Holding%20Letter.pdf>

could not support the principle of residents of Suffolk being subjected to an increase in surface water flood risk during construction, compared to both pre- and post-construction, and that a 1 in 100 year storm event should be able to be accommodated by the construction surface water drainage scheme. SCC suggested that a 1 in 100 year storm event could be accommodated by relocating temporary site uses, such as soil storage, offsite (under a separate planning application) to free up space within the Order Limits for additional surface water attenuation.

- **The Applicant** - in response to SCC's concern about the lack of detail provided by the Applicant on the proposed mitigation, the Secretary of State requested that the Applicant provide details of how the 1 in 30 year return period drainage scheme could be accommodated within the Order Limits, and to provide details of any additional alternative mitigation measures which could reduce the risk to local residents, if a flood event were to occur. The Applicant provided the following updates:
 - (i) **Details of the 1 in 30 year drainage scheme** – the Applicant updated the OCoCP to include a figure demonstrating how the drainage scheme could be accommodated within the Order Limits and included details of the surface water storage volume required and the information used and assumptions made within their calculations. The Applicant noted that there are no current policies or relevant guidance regarding the provision of temporary drainage schemes and noted that in the OCoCP documents of similar schemes, a specific return period for the construction drainage proposals was not defined. Additionally, the Applicant asserted that by implementing their proposed construction drainage plan: *“not only will there be no increased risk of flooding to the surrounding area as a result of the Project, but there will be downstream benefits for locations such as Friston as the attenuation and controlled release of surface water from the site during extreme events will ensure that its flow is reduced when compared to the existing situation.”*
 - (ii) **Alternative Mitigation Measures** – the Applicant strengthened the existing mitigation measures within the OCoCP and committed to establishing a Flood Resilience Fund of £500,000 to provide funding for local residents, community groups, SCC and other statutory bodies to undertake flood resilience measures and therefor assist in alleviating the existing flood risk to local residents if a flood event were to occur.
- **SASES** – In their second consultation response, SASES raised a range of concerns regarding the methodology used by the Applicant to determine the flood risk and submitted a report from GWP Consultants which questioned many aspects of the methodology applied by the Applicant. With regards to the surface water drainage management scheme, SASES considered that the proposed scheme did not adequately take into account the possible length of the construction programme in a worst-case scenario of the East Anglia ONE North and East Anglia TWO projects being constructed sequentially, and that if the worst-case scenario were to occur that the drainage management structures should not be considered as temporary.
 - (i) **SASES – Cable Route** – SASES considered that by applying a 1 in 10 return period for the entire cable route, the Applicant had not taken into account the differences along the cable route, for example near the Hundred River Crossing point which is in the vicinity of residences in Aldringham.
 - (i) **SASES – Substation Site** - SASES stated that the Applicant had understated the possible duration of the construction works and failed to take account of the cumulative impact of other projects which will require further works at the site. SASES also questioned the level of detail and analysis provided by the Applicant

and considered that the Applicant had not demonstrated the viability of deeper basins. Overall, SASES considered that the Applicant's updated construction surface water drainage proposals were wholly unsatisfactory.

Other Post Examination Responses

4.34 The Secretary of State received numerous responses raising other flood risk issues during the consultation periods. Issues raised included:

- that the Proposed Development would increase flood risk in the surrounding areas;
- that adequate infiltration testing had not been completed;
- the Applicant has failed to consider all sources of flooding;
- concern that the Environment Agency and local authorities are unaware of the true frequency of flooding events – residents helpfully provided a list of flooding events alongside photos showing recent flood events;
- the flooding mitigation does not address the cable routes/ hauls roads; and
- the flood risk is significant and has not been fully addressed.

4.35 Additionally, the Secretary of State received a response which raised concerns about the Applicant's revised construction surface water drainage plan¹⁸ for the substation site including the capacity of the temporary drainage basins. However, the Secretary of State remains content with the revised plans, noting that the depth of the temporary drainage basins in the revised surface water drainage plan would be more than 1 m¹⁹.

The Secretary of State's Response

4.36 The Secretary of State has considered all the consultation responses related to the topics of flood risk and construction surface water management and notes the requirements within paragraphs 5.7.10 – 5.7.11 of NPS EN-1. The Secretary of State agrees with the ExA that it does not appear unreasonable that, due to the duration of the construction period, that the return period used for the construction period could be different to that used for the operation period. However, the Secretary of State notes the concerns raised by residents related to the worst-case total construction duration.

4.37 With regards to the cable route corridor, the Secretary of State considers that due to:

- the temporary nature of the works;
- the fact that once construction of a section of the cable corridor is complete, the additional hardstanding or impermeable surfaces would be limited, particularly in comparison to the substation site; and
- that the majority of the cable route corridor crosses rural agricultural land where the impacts of flooding are likely to be less than near to residential areas:

That it is reasonable that the return period of the cable corridor is not the same as that of the substations site.

¹⁸ [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-009888-8.1%20EA2%20Outline%20Code%20of%20Construction%20Practice%20\(TRACKED\).pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-009888-8.1%20EA2%20Outline%20Code%20of%20Construction%20Practice%20(TRACKED).pdf)

¹⁹ [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-009883-ExA.AS-1.SoSQ2.V1%20EA1N&EA2%20Applicants'%20Responses%20to%20the%20SoS'%20Questions%20of%2020.12.2021%20\(Item%203\).pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010078/EN010078-009883-ExA.AS-1.SoSQ2.V1%20EA1N&EA2%20Applicants'%20Responses%20to%20the%20SoS'%20Questions%20of%2020.12.2021%20(Item%203).pdf)

4.38 With regards to the substations site, the Secretary of State notes:

- the general agreement between SCC and the Applicant (as set out in the SoCG between the SCC, ESC and the Applicant) that the flood events in late 2019 early 2020 were not a direct result of surface water runoff from land associated with the proposed substation site;
- that there are no current policies or relevant guidance regarding the recommended return period of temporary drainage schemes; and
- the provision of evidence by the Applicant that there would be no increased risk of flooding to the surrounding areas, together with their commitment to increasing the return period of the works around the substation site, the strengthening of flood mitigation measures, and their commitment to establishing a Flood Resilience Fund.

4.39 The Secretary of State also notes the proposal suggested by SCC that in order to further increase the return period, that the Applicant could move temporary construction activities, such as soil storage, to offsite locations by way of additional planning applications. However, the Secretary of State notes that this approach could result in additional adverse effects due to increased number of HGV movements around the construction site, or in a worst-case scenario, in a significant extension of the construction period and the numerous adverse effects which could occur as a result of this.

4.40 Taking the above points into consideration, the Secretary of State is satisfied that all reasonable steps have been taken by the Applicant to try and resolve the concerns of SCC as the Lead Local Flood Authority and, as such, meets the relevant policy requirements.

Flood Risk During Operation

4.41 The ExA acknowledged [ER 6.5.25] that the Applicant has extrapolated the results of their infiltration testing and that extrapolated results are not in accordance with accepted methodology. However, the ExA noted that SCC agreed that the test results contained sufficient detail for their purposes, and as such the ExA was satisfied that sufficient survey data had been collected. The ExA noted the concerns of SASES and other parties about the methodology used in the Applicant's modelling and the frequency of flood events but noted that it was agreed in the SCC/ESC SoCG that the flood event was from multiple flow paths and not a direct result of surface water runoff from land associated with the Proposed Development only.

4.42 The ExA carefully considered [ER 6.5.30] all concerns raised by Interested Parties throughout the examination, including those by SASES who contributed significantly on this matter both in writing and at issue specific hearings. Overall, the ExA was satisfied that it had been demonstrated that flood risk during the operational phase of the Proposed Development could be satisfactorily mitigated and accommodated within the Order Limits.

Cumulative Impacts

4.43 Due to the limited information available to the ExA [ER 6.5.31] in relation to future proposals, the ExA considered that it is for the Applicant to demonstrate that the Proposed Development would not increase flood risk and that any future proposals at the site would have to meet the same standards, ensuring that any cumulative impacts would not result in an increase in flood risk to the village of Friston. Consequently, the ExA agreed with the Applicant that it is not possible to consider the potential operation phase cumulative impacts in relation to flood risk in detail.

4.44 In terms of other projects which have progressed far enough through the consenting process to be included in the cumulative assessment, including the East Anglia ONE North project, the ExA agreed with the Applicant that for both the construction and operational phases of the project no significant cumulative effects would occur.

Conclusions

4.45 The ExA noted the changes to the NPPF which had occurred since the close of the examination and concluded [ER 6.6.1]:

- that as the change to the NPPF came into effect after the close of the examination, the ExA were unable to reach a conclusion on whether the Proposed Development satisfactorily passed the Sequential Test;
- that the Secretary of State should undertake further consultation with Interested Parties on the implications of the updates;
- that there was insufficient evidence to enable the ExA to determine the most appropriate return period to be utilised for the design of the construction surface water drainage scheme and to ensure that there would be sufficient space within the Order Limits to accommodate such a return period;
- that there would be no significant effects on flood risk during the operation stage on the basis of the secured Outline Operational Drainage Management Plan in accordance with NPS EN-1. In arriving at this view, the ExA considered the evidence of the relevant statutory advisors and other Interested Parties with specialist flood risk expertise, including SASES.

4.46 Drawing these matters together the ExA concluded that the potential increased flood risk during construction carries a high negative weighting in the planning balance.

4.47 As set out in previous paragraphs, the Secretary of State considers:

- that the Applicant has (as it is currently defined) applied the Sequential Test as part of site selection and, that the FRA is appropriate for the Application;
- that the updated climate change allowances do not have an impact on the Proposed Development;
- that it is reasonable that the return period of the cable corridor is not the same as that of the substations site;
- that all reasonable steps have been taken by the Applicant to try and resolve the concerns of SCC as the Lead Local Flood Authority and, as such, the Application meets the relevant policy requirements.

4.48 Overall, the Secretary of State agrees with the ExA's conclusion that the potential increased flood risk still carries a high negative weight in in the planning balance but considers that, taking into account the Applicant's commitment to increase the return period for the construction surface water drainage scheme, the Secretary of State is satisfied that policy requirements have been met.

5 Landscapes and Visual Amenity

5.1 The ExA notes [ER 7.2.1 et seq.] that NPS EN-1 sets out that an applicant should carry out a landscape and visual assessment which should include reference to landscape assessments and studies and take account of any relevant policies based on these assessments in local plans. NPS EN-1 also sets out that the Secretary of State should consider whether adverse effects are temporary, or capable of being reversed, and that all

proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The Secretary of State will have to judge whether the adverse landscape and visual effects outweigh the benefits of the proposal.

The Applicants Case

- 5.2 The Applicant's landscape and visual impact assessment ("LVIA") of the construction phase predicts several short-term significant landscape and visual effects. These include:

Construction

- Landfall – [ER 7.3.26 et seq.] short-term localised significant effects are expected to occur to the Estate Sandlands Landscape Character Type ("LCT") and the area of the Suffolk Coasts and Heaths Area of Outstanding Natural Beauty ("SCHAONB") between Thorpeness and Leiston in proximity to the landfall. Short term significant visual effects are expected to occur near the landfall to the users of the Suffolk Coastal Path ("SCP") and the Sandlings Walk—where the routes pass close to the construction area.
- Cable Route – [ER 7.3.28 et seq.] short term significant landscape effects are expected to occur during construction within areas of the SCHAONB and the Hundred River Valley Special Landscape Area ("SLA"). Short term significant effects are also expected to occur to multiple receptors along the cable route.
- Substation – [ER 7.3.30 et seq.] significant effects to the landscape character within a localised area of approximately 1 km around the substation. Significant visual effects are expected to occur to the residents of localised areas on the edge of Friston and people walking on the local network of footpaths to the north of Friston, and to motorists on the surrounding roads.

Operation

- Cable Route - [ER 7.3.35 et seq.] significant landscape and visual effects along the cable route are only expected to occur at a crossing at Aldeburgh Road. At this location, significant landscape effects are expected to occur during year one but are expected to reduce to a non-significant effect as planting matures.
- Substation – [ER 7.3.37 et seq.] significant permanent landscape effects are also expected to occur within a localised area of 1 km around the proposed substation and the National Grid substation. Significant visual effects are expected to occur in proximity of the substation site at several viewpoints and would affect some residential properties, cyclists, motorists and walkers. The visual effects would be long term, but effects on several of the receptors are predicted to reduce to not significant as planting matures.

Cumulative Effects – Construction

- Cumulative effects between East Anglia ONE North and East Anglia TWO - The ExA notes [ER 7.3.45 et seq.] the numerous cumulative landscape and visual effects which are predicted to occur as a result of the key elements of East Anglia ONE North and East Anglia TWO.
- Cumulative effects between East Anglia ONE North, East Anglia TWO and Sizewell C:
 - (i) Significant medium-term landscape and visual effects could occur during construction, if the construction phases of the East Anglia ONE North, East Anglia TWO and Sizewell C projects were to overlap.
 - (ii) Landfall and cable route – significant visual effects to walkers on the SCP and Sandlings Walk.

- Cables route - significant landscape effects to LCT 07 Estate Sandlands Area A and the SCHAONB Area A. Significant visual effects to walkers on the SCP and Sandlings Walk, and to cyclists on the Suffolk Coastal Route at relevant sections.
- 5.3 No significant cumulative LVIA effects are expected to occur during the operation phase of the Proposed Development.
- 5.4 Significant inter-related effects during construction between onshore and offshore elements of the Proposed Development for residents of the northern edge of Thorpeness and walkers using the SCP and Sandlings Walk in the area between Thorpeness and Sizewell.

Planning Issues

- 5.5 Key planning issues raised during the examination were primarily related to the landscape and visual effects of the onshore substation and the associated mitigation measures including the proposed planting around the substation site. Concerns were also raised about the methodology applied within the Applicant's LVIA.
- 5.6 The ExA notes [ER 7.4.8] that landscape and visual effects were frequently raised during the examination, with over 200 Relevant Representations from members of the public or businesses citing it as a concern. The issue was also raised [ER 7.4.1 -7.4.8] by Friston Parish Council and a number of action groups including SASES, Save our Sandlings and the Suffolk Preservation Society. In their LIR ESC and SCC, stated that their primary area of concern was the landscape and visual impacts of the onshore elements of the projects. Landscape and visual effects issues were raised also in numerous post examination responses made to the Secretary of State.

Scope, Methodology and Existing Environment

- 5.7 ESC and SCC stated in their joint LIR that the Applicant had not fully understood the significance of landscape and visual receptors surrounding the site, particularly regarding the historic landscape character. In response, the Applicant submitted an Archaeology and Cultural Heritage Clarification Note which the ExA [ER 7.5.7] considered addressed any deficiencies in the LVIA in respect of cultural heritage.

Installation of Cable Ducting

- 5.8 In their relevant representation, Natural England highlighted [ER 7.4.1] the need for considering and potentially committing to simultaneous construction of the onshore cabling for both projects should they be approved. They also expressed concerns about the limited detail available on how construction work would proceed in proximity to the SCHAONB. During the examination the Applicant committed to reducing the overall size of the substation and to installing the cable ducting in parallel for the East Anglia ONE North and East Anglia TWO projects—if the projects were to be built sequentially. Subsequently, Natural England confirmed that its concerns regarding the LVIA and SCHAONB had been addressed.

Growth Rates of Mitigation Planting

- 5.9 The ExA noted [ER 7.5.26] that there was considerable discussion during the examination in respect of the likely growth rates of mitigation planting and the replacement of failed plants. This was raised by ESC and SCC in their joint LIR and by several other Interested Parties. In response to the concerns raised, the Applicant submitted updated photomontages to more accurately reflect likely growth rates, and updated the Outline Landscape and Environmental Management Strategy ("OLEMS") to include an adaptive planting management scheme for specific areas of planting. The addition of the adaptive planting management scheme addressed the Councils' concerns regarding planting

maintenance and aftercare and the ExA agreed that this would provide sufficient maintenance and aftercare to the planting and replacement woodland. The ExA concluded [ER 7.6.1] that the growth rates and aftercare management/maintenance of mitigation planting were realistic and appropriate.

Photomontages

- 5.10 SASES raised concerns [ER 7.5.30] during the examination over whether the photomontages showed the full representation of the potential views. The ExA [ER 7.6.1] noted these disagreements but considered that the photomontages were realistic enough to be able to gauge the impacts of the Proposed Development.

National Grid Substation

- 5.11 The ExA agreed [ER 7.5.43 et seq.] with the concerns raised by ESC and various Interested Parties that insufficient progress on securing an agreed design for the National Grid substation was made during the examination and regretted that there was limited opportunity for the ExA and Interested Parties to engage with National Grid in hearings. Due to discussion held towards the end of the examination regarding the possibility of the National Grid substations being Gas Insulated Switchgear (“GIS”) rather than Air Insulated Switchgear (“AIS”), the Applicant submitted photomontages which showed a comparison of the two possible substation configurations. The Councils and SASES [ER 7.5.44] reviewed the additional photomontages and were both of the view that neither AIS or GIS configurations would have a significantly different effect in overall terms. The ExA agreed with this, and also noted [ER 7.5.44] that a GIS configuration was unlikely to be implemented due to the greenhouse gas emissions associated with the technology, National Grid’s commitment to reducing their greenhouse gas emissions, and their commitment to work within the requirements of the Electricity Act 1989 to keep their costs to a minimum.
- 5.12 In response to significant concerns from a number of parties (including the Councils’) about future projects, the Applicant submitted an Extension of National Grid Substation Appraisal [ExA Ref: REP8-074]. This Appraisal assessed the potential effects of extending the National Grid substation to accommodate future projects, including: Nautilus interconnector, EuroLink interconnector, North Falls and Five Estuaries offshore wind farms. However, the Appraisal states *“it has been confirmed by both the proposed North Falls [ExA Ref: REP7-066] and Five Estuaries projects that they will not connect near Leiston.”*
- 5.13 The Secretary of State notes that the future projects considered are in the following stages of development:
- Nautilus interconnector – National Grid Ventures requested a section 35 direction under the Planning Act 2008 on 4 March 2019, the Secretary of State received further information from National Grid Ventures on 4 April 2019 and a direction was made by the Secretary of State on 29 April 2019. The application is expected to be submitted to the Planning Inspectorate Q2 2023.
 - EuroLink interconnector - is a proposal by National Grid Ventures to build a HVDC transmission cable between the UK and the Netherlands. The capacity of the link will be 1.4 GW and the project is still in the very early stages of development. No information on this project has currently been submitted to the Planning Inspectorate or the Secretary of State.
- 5.14 Currently, the only documentation available on the Planning Inspectorate’s website for the Nautilus interconnector project is the Section 35 Direction made by the Secretary of State for the proposed development to be treated as development for which development consent

is required under the 2008 Act. The Eurolink interconnector project is earlier in the development consent process than Nautilus, and no documentation has been submitted to the Planning Inspectorate. Consequently, there is very limited environmental information available which would allow the Applicant to conduct a cumulative assessment. The Applicant's decision not to include these proposed projects in its cumulative effects assessment is also supported by the Planning Inspectorate's Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects²⁰. Paragraph 3.3.1 of the Advice Note lists the information required to conduct stage 4 of a cumulative effects assessment:

- proposed design and location information;
- proposed programme of construction, operation and decommissioning; and
- environmental assessments that set out baseline data and effects arising from the 'other existing development and/or approved development'.

5.15 As none of the above information was available prior to the close of the East Anglia ONE North and East Anglia TWO examination period for either the Nautilus or Eurolink projects, the Secretary of State is content that it was not necessary for the Applicant to include these proposed projects in its cumulative effects assessment. Further details of the Secretary of State's position on the inclusion of these projects in the Applicant's cumulative assessment can be found in paragraph 12.14 of this document.

5.16 The ExA [ER 7.6.1] concludes that:

"The extension of National Grid Substation Appraisal [ExA Ref: REP8-074] demonstrates a significant worsening of potential adverse effects for relevant VPs [Viewpoints] and for landscape character. The extension of the NG substation would intensify and worsen the effects of the Proposed Development on both the local landscape and on visual receptors. Such an effect would be added to in an unknown way by the provision of required surface water drainage."

Cumulative Effects

5.17 Noting the commitment of the Applicant to install the cable ducting for both the East Anglia One North and East Anglia TWO projects in parallel, the ExA consider [ER 7.5.53] that the cumulative effects of the East Anglia ONE North and East Anglia TWO projects combined would be the same for construction and operation for the landfall site and the cable route, as for the Proposed Development on its own. The ExA agreed with the conclusions of the ES and subsequent Addendum, in terms of the significant cumulative visual effects which would result at the substations site. The ExA notes [ER 7.5.54]:

"The cumulative effects of the two schemes would exacerbate the adverse effects of the singular scheme for landscape character and significant harm would be caused to the local areas of LCT01 and LCT07."

5.18 The ExA also notes that as the Applicant cannot commit to constructing the two projects simultaneously. Were they to be constructed sequentially then cumulative effects, particularly during the construction phase, would be significantly worsened.

²⁰ <https://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/advice-note-17/>

5.19 With regards to possible cumulative effects with Sizewell C, the ExA agrees with the Applicant's assessment [ER 7.5.56]: that cumulative effects with Sizewell C would be:

“confined to walkers on the Suffolk Coastal Path and Sandlings Walk close to the landfall (with potential views of [Sizewell C]) and on those areas of the cable route in relevant areas. Such effects would be confined to the construction phase of the process.”

Post Examination Responses

5.20 The Secretary of State has received numerous responses since the close of the examination which raised issues related to landscape and visual impacts. These included:

- the visual and landscape impacts of the proposed substation site;
- the landscape and visual impacts more generally of all the offshore infrastructure;
- the large-scale industrialisation of the area, particularly with regards to future projects and potential impacts; and
- impacts on the SCHAONB;

Examining Authority's Conclusions

5.21 The ExA concluded:

- The LVIA assessment and addendums made to it through the examination by the Applicant conforms with the requirements of NPS EN-1.

Landfall and Cable Route

- The ExA agreed that during construction the Proposed Development would cause short term significant harm to the local landscape the proposed landfall site and to the area of the cable route in Hundred River Valley SLA and around Fitches Lane.
- The ExA considers, contrary to the ES, that the reinstatement proposals to the Hundred River Valley SLA and the landscape character around Fitches Lane, would cause harm to the landscape character of this area, as well as local visual harm to relevant receptors during both construction and operation.

Substations Site

- The ExA did not agree with the Applicant that the 'embedded mitigation' of modern farm buildings at Red House Farm or the existing pylons significantly reduce the quality of the landscape. Red House Farm is not visually within the character of the Proposed Development site and the pylons, while clearly noticeable, stride across the landscape, leaving space below and between the electrical transmission infrastructure.
- The ExA agreed that the Proposed Development would have a significant adverse effect on the local landscape at 15 years post construction.
- The ExA considered that the submitted photomontages were realistic enough to be able to gauge the potential impacts of the Proposed Development.
- The ExA considered that the growth rates and aftercare management/maintenance of mitigation planting are realistic and appropriate.
- The ExA agreed with the assessments of harm to visual effect contained within the Applicant's assessment, apart from to residents at VP4 where the ExA considered significant harm would be caused. The ExA agreed that substantial harm would also be

caused to VPs 2, 5 and 8. The ExA also considered that significant harm would be caused to visual receptors at CHVP4.

- The ExA considered that the site is already reasonably well screened when viewed from a distance but that in closer views, specifically in the area between Fristonmoor and Friston, views would be significantly impacted, and that the Proposed Development would have a highly significant effect on this area of land and would effectively divorce Friston from its northerly satellite.
- Harm to local landscape and relevant receptors is increased by the proposed National Grid substation and associated technology. Such harm would likely not be altered significantly by either the use of AIS or GIS technology.
- Drainage proposals and the access road would add to the harm caused by the Proposed Development to the landscape character of the local area.
- For construction effects, significant harm would be caused to the character of the landscape and significant adverse visual effects would occur at similar levels as during the operation of the Proposed development.

Cumulative Effects

- The ExA agreed that the cumulative effects of the Proposed Development and the East Anglia ONE North application combined will be the same for construction and operation for the landfall site and the cable route, as for the Proposed Development on its own.
- For the substations site, the ExA agree with the LVIA Addendum that significant visual effects would occur at Viewpoints 2, 4, 5, 8 and 9. Harm would be increased to residents to the south of Friston from that of a singular project.
- The cumulative effects of the two schemes would exacerbate the adverse effects of the singular scheme for landscape character.
- The Applicant could not commit to construct the substations for the two schemes simultaneously. Were the schemes to be constructed sequentially then construction effects would be significantly worsened by virtue of the longer construction period.
- For the East Anglia ONE North application and Sizewell C the ExA agrees that significant cumulative effects with Sizewell C would be confined to walkers on local paths close to the landfall and to the cable route in relevant areas.
- The extension of National Grid Substation Appraisal demonstrated a significant worsening of potential adverse effects for relevant VPs and for landscape character. The extension of the National Grid substation would intensify and worsen the effects of the Proposed Development on both the local landscape and on visual receptors. Such an effect would be added to in an unknown way by the provision of required surface water drainage.

5.22 Drawing all these facts together, the ExA concluded that:

- The Proposed Development has been designed as carefully as possible and therefore complies with paragraph 5.9.17 of NPS EN-1. Nevertheless, significant harm would occur to the landscape, and the proposal would not protect and enhance the special qualities of the area or the visual relationship and environment around Friston and Fristonmoor and as such the proposal would be contrary to Policy SCLP10.4 of the Suffolk Coastal Local Plan.
- The harm caused to the landscape and to visual receptors by the Proposed Development has a medium negative weighting to be carried forward in the planning balance.

- Cumulative effects with the East Anglia ONE North application increase this harm.
- The medium weighting is arrived at in recognition of the levels of significant harm that the Proposed Development would cause to the landscape and settlement pattern between Friston and Fristonmoor. This harm is at the higher end of the scale but the fact that the local landscape is not nationally designated means that this weighting does not tip into a high weighting.
- In reaching the above conclusions the ExA has not considered the Extension of National Grid Substation Appraisal, noting that the Applicant acknowledges that the Appraisal is 'environmental information' and is not intended to comprise a Cumulative Impact Assessment.

5.23 The Secretary of State agrees with the ExA's conclusions on Landscape and Visual Amenity.

6 Onshore Historic Environment

- 6.1 The ExA noted [ER 8.2.1] the requirements within the Infrastructure Planning (Decisions) Regulations 2010 for the Secretary of State, as decision maker, to have regard to the desirability of preserving any affected listing building, its setting, or any features of special architectural or historic interest which it possesses.
- 6.2 The ExA also noted [ER 8.2.2 et seq.] that NPS EN-1 states that the Applicant should provide a description of the significance of the heritage assets affected by the Proposed Development, and the contribution of the asset's setting to its significance. The Secretary of State should seek to identify and assess the particular significance of and impact on any heritage asset that may be affected by the Proposed Development, including by development affecting the setting of a heritage asset. The NPS outlines the issues which should be considered in determining the impact on a heritage asset, and sets out how the magnitude of the impact should be classified, and weighed against the public benefit of the development. The ExA also sets out the relevant policies within the NPPF [ER 8.27 et seq.] and within the Suffolk Coastal Local Plan [ER 8.2.11 et seq.].
- 6.3 The ExA noted that during the examination, there were several discussions about the policy environment [ER 8.5.7 et seq.]. In particular, the differences between NPS EN-1 and the NPPF, and between NPS EN-1 and the NPSs which have been more recently updated²¹. In the Applicant's response to the discussions, it noted that the NPPF does not contain specific policies for NSIPs—which are determined in accordance with the Planning Act 2008 and noted the differences in wording of the NPPF and NPS EN-1 [ER 8.5.10]. The ExA agreed [ER 8.5.11] with the Applicant's reasoning and interpretation of the law. However, it also considered that the 'direction of travel' of policy including the later wording of the NPPF and the policy of 'great weight' to be important and relevant, noting the Barnwell decision²² and the text of the more recently updated NPSs in this regard.

Planning Issues

- 6.4 Heritage impacts were frequently mentioned in Relevant Representations during the examination [ER 8.4.6] and in representations made to the Secretary of State during the

²¹ Such as the Airports NPS (2019) or the Geological Disposal Infrastructure NPS (2019)

²² <https://cornerstonebarristers.com/news/barnwell-manor-wind-energy-ltd-v-e-northants-dc-english-heritage-national-trust-ssclg/#:~:text=Northants%20DC%2C%20English%20Heritage%2C%20National%20Trust%20%26%20SSCLG,-18.02.2014&text=Court%20of%20Appeal%20rejects%20Barnwell,the%20setting%20of%20listed%20buildings.>

post-examination consultation periods. Relevant Representations were also received from owners of some of the listed buildings surrounding the substation site. Issues relating to the impact of the Proposed Development on cultural heritage were a recurring theme in the examination and were raised by many Interested Parties, both in writing and verbally at the examination hearings [ER 8.5.3]. Numerous concerns about the impacts caused by the Proposed Development, and the surveys and assessment conducted by the Applicant, were raised by SASES [ER 8.4.32 et seq.], Historic England [ER 8.4.20 et seq.], the Parish Councils [ER 8.4.3; 8.4.30] and by SCC and ESC in the LIR [ER 8.4.9].

The Applicant's Case

Construction Impacts

Impact 1 - Direct Physical Impact on Buried Archaeological Remains

- 6.5 The Applicant's assessment noted [ER 8.3.17; 8.3.18; 8.3.24] there is the potential presence of sub-surface archaeological remains of varying types at the landfall, along the cable route corridor and at the substation site. The remains are regarded as heritage assets, and without mitigation, construction of the Proposed Development could result in significant (for the cable route) and moderate (for the substation site) adverse effects [ER 8.3.23; 8.3.27]. With the proposed mitigation, including avoidance, micro-siting, route refinement and additional post consent surveys, the Applicant's assessment considered that effects at the landfall, substation site and along the cable route corridor would be minor adverse or negligible [ER 8.3.29].
- 6.6 The ExA notes that in general [ER 8.5.14] this matter was agreed between the Applicant, Historic England and SCC, although Historic England, SCC and ESC (within the LIR) did raise concerns during the examination about the extent of surveys and trial trenching which had been undertaken by the Applicant [ER 8.5.14 et seq.]. SASES considered that there were significant shortcomings with the Applicant's assessment and survey methodology [ER 8.4.32].
- 6.7 SCC and Historic England agreed [ER 8.5.17] that the conclusions of the Applicant's assessment in relation to the assessment of construction impacts were appropriate. The ExA agreed with this conclusion and noted that the Outline Written Scheme of Investigation and the provisions of the draft Order relating to archaeology had been agreed [ER 8.5.18].

Impact 2 - Direct Impact on Above Ground Archaeological Remains and Heritage Assets

- 6.8 The Applicant's assessment noted that there could be direct physical impacts to a number of above ground heritage assets present at the landfall, substation site, and along the cable corridor [ER 8.3.30; 8.3.32; 8.3.36]. It also noted there could be temporary changes to the historic landscape character [ER 8.3.31; 8.3.35; 8.3.37] and to important hedgerows associated with parish boundaries [ER 8.3.34]. However, with the embedded mitigation, the Applicant's assessment considered that effects at the landfall, substation site and along the cable route corridor would be minor adverse or negligible. The ExA agreed [ER 8.5.19] with the methodology and conclusions of the Applicant's assessment, except for the impacts to the Pilgrim's Path which are covered in paragraph 6.18 below.
- 6.9 The Applicant's assessment also considered the following impacts:
- Impact 3 - Indirect (non-physical) impact as a result of change in the setting of heritage assets (designated and non-designated);
 - Impact 4 - Impact on potential geoarchaeological / paleoenvironmental remains; and

- Impact 5 - Impact from drilling fluid breakout or oil spills.

6.10 Overall, the Applicant concluded that, following mitigation, all construction phase effects would be reduced to minor adverse or negligible, or that they would not give rise to significant harm [ER 8.3.40; 8.3.42 8.3.43]. With regards to cumulative construction impacts, in the worst-case scenario of the East Anglia ONE North and East Anglia TWO projects being constructed sequentially, the Applicant considered [ER 8.3.52] that the magnitude of effect would be minor adverse for Impacts 1, 2, and 4, no effect for Impact 3, and negligible effects for Impact 5.

The Examining Authority's Response – Potential Construction Impacts

- 6.11 With regards to Impact 3, the ExA agreed [ER 8.5.22] that the change in setting to heritage assets during construction would be temporary and would not give rise to material harm. The ExA did not consider, conversely to the suggestion by SASES [ER 8.4.32], that the omission of construction effects was contrary to paragraph 5.8.10 of NPS EN-1 [ER 8.5.22]. Additionally, the ExA agreed that Impacts 4 and 5 above could be reduced to minor adverse effects following mitigation [ER 8.5.23-8.5.24].
- 6.12 The ExA concluded [ER 8.6.1] that it agreed with the Applicant's predicted impacts during the construction phase and that indirect effects to heritage assets would be temporary and not give rise to material harm. The ExA considered [ER 8.4.52 et seq.] that, following the document revisions provided by the Applicant during the examination, the outline Written Scheme of Investigation and the provisions within the draft Order were acceptable and satisfactory to mitigate harm to the levels outlined in the Applicant's assessment.

Operation Impacts

- 6.13 Several IPs, including ESC, Historic England, Friston Parish Council and SASES disagreed with the magnitude of harm which the Applicant had assigned to heritage assets within its assessment [ER 8.4.26; 8.4.36 8.4.51; 8.4.54]. ESC and SCC, in the joint LIR, and Friston Parochial Church Council expressed concern with the effect the substation site would have on the Church of St Mary (Grade II*) [ER 8.4.9; 8.4.30], and Historic England considered that the cumulative impact of the entire proposed infrastructure would mean the prominence of the Church and its dominance as a key landmark would be entirely lost [ER 8.4.25].

Church of St Mary

- 6.14 In their Relevant Representation, Historic England noted that their principal concern was the cumulative impact of the Proposed Development on the Grade II* listed Church of St Mary in Friston, which they considered would result in a very high level of harm to the significance of the Church [ER 8.4.1]. Discussions were held between Historic England and the Applicant during the examination, however, at the close of examination the level of harm to the Church of St Mary was not agreed in the final SoCG between the two parties [ER 8.4.54].
- 6.15 The ExA considered that the setting of the Church of St Mary (Grade II*) would be harmed in a significant way but, as the fabric of the Church would not be harmed, agreed with the Applicant and SCC [ER 8.4.50] that the Proposed Development would result in a high level of less than substantial harm. However, the ExA and SCC considered that harm would be at the higher end of the scale within less than substantial harm [ER 8.5.55].

Indirect (non-physical) impact as a result of change in the setting of heritage assets (designated and non-designated)

- 6.16 Six Grade II and two Grade II* listed buildings were identified by the Applicant's assessment where change in setting caused by the Proposed Development could lead to harm to their

significance [ER 8.3.45 et seq.]. After mitigation, the Applicant's assessment concluded that: the effects to Aldringham Court (Grade II) were not sufficient to materially affect the setting of the building; moderate adverse effects would be caused to Little Moor Farm (Grade II) and the Church of St Mary (Grade II*); and minor adverse effects were predicted to occur to the remaining five listed buildings. In their joint LIR, ESC and SCC raised significant concerns regarding the harm the development would cause to the listed buildings surrounding the substation site [ER 8.4.9].

The Examining Authority's Response – Potential Operation Impacts

- 6.17 The ExA agreed that the Proposed Development would not cause material harm to the setting or the significance of Aldringham Court (Grade II) [ER 8.5.27; 8.6.1] or to the setting or significance of Friston Post Mill (Grade II*) [ER 8.5.29; 8.6.1]. However, the ExA disagreed with the Applicant on the magnitude of harm for the following listed buildings:

Friston House (Grade II):

- Applicant's assessment: negligible – less than substantial harm
- ExA's conclusion: low level of less than substantial harm [ER 8.5.33]

Woodside House Farm (Grade II)

- Applicant's assessment: negligible – less than substantial harm
- ExA's conclusion: medium level of less than substantial harm [ER 8.5.37]

High House Farm (Grade II)

- Applicant's assessment: low magnitude – less than substantial harm
- ExA's conclusion: medium level of less than substantial harm [ER 8.5.43]

Little Moor Farm (Grade II)

- Applicant's assessment: medium magnitude – less than substantial harm
- ExA's conclusion: high level of less than substantial harm [ER 8.5.47]

Church of St Mary (Grade II)*

- Applicant's assessment: low magnitude – less than substantial harm
- ExA's conclusion: high level of less than substantial harm [ER 8.5.55]

Friston War Memorial (Grade II)

- Applicant's assessment: negligible – less than substantial harm
- ExA's conclusion: low level of less than substantial harm [ER 8.5.55]

Pilgrim's Path

- 6.18 During the examination Friston Parochial Church Council flagged the importance, and significance to the setting of the Church of St Mary (Grade II*), of the Pilgrim's Path—a trackway which runs directly through the substation site [ER 8.4.47]. During discussions between the Applicant and SCC, both parties agreed that the Pilgrim's Path, should be considered as a non-designated heritage asset [ER 8.5.13]. The ExA also agreed [ER 8.5.13]. The ExA considered that the Pilgrim's Path would be directly and indirectly impacted by the Proposed Development and would result in the loss of a large proportion of the trackway which would result in substantial harm [ER 8.5.20; 8.5.25; 8.5.58]. The ExA also considered that although the cumulative impacts of East Anglia ONE North and East Anglia

TWO would result in more of the Pilgrim's Path being lost, the cumulative harm would be much the same [ER 8.5.66].

Decommissioning Impacts

- 6.19 The Applicant's assessment concluded [ER 8.3.51] that impacts during decommissioning of the Proposed Development would be no greater than those identified during the construction phase. The ExA considered [ER 8.5.63] this to be a reasonable assumption.

Cumulative Impacts

- 6.20 Several Interested Parties [ER 8.4.57 et seq.] such as ESC, SASES and Historic England raised issues with the cumulative effects of the Proposed Development. ESC and SASES considered that instead of the National Grid Substation Appraisal submitted by the Applicant during examination, a full cumulative impact assessment should have been completed [ER 8.4.58-8.4.59].

Cumulative Impacts between the East Anglia ONE North and East Anglia TWO developments

- 6.21 For cumulative operational impacts, the Applicant's assessment predicts [ER 8.3.53] moderate adverse effects for Little Moor Farm (Grade II) and the Church of St Mary (Grade II*), and minor adverse impacts for the remaining listed buildings (including Aldringham Court on the cable route).
- 6.22 The ExA considered that, due to the Applicant's commitment to install cable ducting for both projects simultaneously, that the construction effects would be the same for both projects [ER 8.5.65; 8.6.1].
- 6.23 In terms of operational cumulative effects between East Anglia ONE North and East Anglia TWO, the ExA considered that the magnitude of effects upon the listed buildings outlined in paragraph 6.17 would remain the same, except for Little Moor Farm (Grade II), Woodside Farm (Grade II), Church of St Mary (Grade II*) and the Friston War Memorial (Grade II). Although the ExA considered the magnitude of harm would increase to these listed buildings, it did not consider that the increase in magnitude would affect the overall levels of less than substantial harm it had assigned, as such, the levels would remain the same as detailed in paragraph 6.17.

Cumulative Impacts with Sizewell C

- 6.24 The Applicant's assessment noted that although the footprints of the East Anglia ONE North and East Anglia TWO projects do not overlap with any other consented or proposed projects, multiple direct physical impacts to archaeological remains/ heritage assets could result in a cumulative effect of the archaeological resource of the area. The Applicant noted that this impact is difficult to assign but, prior to mitigation, could result in a major adverse effect [ER 8.3.54]. The Applicant's assessment also noted the archaeological data which has been collated as a result of surveys from various developments in the area can be seen as contributing significantly to a greater understanding of the sub-surface historic environment. As a result, the Applicant considered that the residual significant effect would be minor adverse [ER 8.3.55]. The Applicant also considered inter-related effects between other environmental assessment disciplines but concluded that the inter-related effects are not greater than the individually assessed impacts [ER 8.3.58].
- 6.25 The ExA agreed that there could be cumulative effects on archaeological remains/ heritage assets, and that the effect would be reduced to minor adverse due to the acquisition and assessment of archaeological survey data. The ExA also agreed that no harm would be

caused by indirect impact resulting from change in the setting of heritage assets for the construction or the operational phase [ER 8.5.67; 8.6.1].

Cumulative Impacts with the Potential National Grid Extension

- 6.26 The Applicant submitted a National Grid Substation Appraisal during the examination which indicated the potential effects which would result from extending the National Grid substation to accommodate future projects. The Appraisal indicated that this would result in an increase in the overall length of the National Grid Substation [ER 8.5.68]. The ExA considered that an extension to the National Grid substation would increase the magnitude of harm to Little Moor Farm (Grade II), the Church of St Mary (Grade II*), Friston House (Grade II), Woodside Farm House (Grade II) and High House Farm (Grade II). However, the increase in magnitude would not result in an increase to the overall levels of less than substantial harm it had assigned, as such, the levels would remain the same as detailed in paragraph 6.17. The ExA considered that the overall level of less than substantial harm for the Friston War Memorial would potentially increase to a medium level of less than substantial harm [ER 8.5.70; 8.6.1].
- 6.27 The ExA stated [ER 8.6.1] that it had not considered the National Grid Substation Appraisal in reaching its overall conclusion on Onshore Historic Environment—noting that the Applicant acknowledged that the Appraisal is “environmental information” and is not intended to comprise a Cumulative Impact Assessment.

Offshore Impacts

- 6.28 The ExA considered [ER 8.5.60] the offshore impacts of the Proposed Development and concluded that the visual effect of the turbines would not cause harm to the identified heritage assets. The ExA agreed [ER 8.5.61] that no impact is likely during operation due to heat loss associated with the cables.

The Examining Authority's Conclusions

- 6.29 The ExA noted [ER 8.6.1] that it had identified harmful impacts on the significance of various designated heritage assets and to a non-designated heritage asset and the ExA considered the harm would be increased as a result of cumulative effects between the East Anglia ONE North and East Anglia TWO developments. In accordance with NPS EN-1, the ExA weighed this harm against the public benefits of development when considering the overall planning balance. The ExA also noted that for several heritage assets the magnitude of harm was at the higher end of the scale of less than substantial harm and that there would be substantial harm to a non-designated heritage asset.
- 6.30 Overall, the ExA concluded that harm caused to the onshore historic environment had a medium negative weighting to be carried forward in the planning balance. The Secretary of State is aware that where there is an identified harm to a heritage asset he must give that harm considerable importance and weight and he does so in this case. Overall, the Secretary of State agrees with the ExA's conclusions on Onshore Historic Environment and in light of the public benefit of the Proposed Development is of the view that onshore historical environment matters do not provide a justification not to make the Order.

7 Seascapes

- 7.1 NPS EN-1 sets out that an applicant should carry out a landscape and visual assessment and that references to landscape should include seascape where appropriate. It acknowledges that virtually all nationally significant infrastructure projects will have an effect on the landscape and projects will need to be designed carefully and to minimise harm and

provide mitigation where reasonable. Areas of Outstanding Natural Beauty (“AONB”) are confirmed as having the highest status of protection in relation to landscape and scenic beauty. [EN 9.2.1 et seq.]

- 7.2 NPS EN-3 sets out that where a proposed offshore windfarm will be visible from the shore, a seascape and visual impact assessment should be undertaken which includes an assessment of the limit of visual perception from the coast, individual characteristics of the coast which affect its capacity to absorb a development, and how people perceive and interact with the seascape. It notes that consent should not be refused solely because of an adverse effect on seascape or visual effect unless an alternative layout can reasonably be proposed which would minimise the harm or taking account of the receptors specified in EN-1, the harmful effects are considered to outweigh the benefits of the scheme. EN-3 recognises the difficulty in changing the design or scale of individual wind turbines without significantly affecting the electricity generation. [ER 9.2.5 et seq.]
- 7.3 The ExA also notes the sections relevant to the seascape within the Countryside and Rights of Way Act 2000, Marine Policy Statement, and policies within local plans. The Suffolk Coastal Local Plan states that development will not be permitted where it would have a significant adverse effect on the natural beauty and special qualities of the Suffolk Coast and Heaths AONB (“SCHAONB”) and highlights that developments should protect and enhance the tranquillity and dark skies across the plan area. [ER 9.2.8 et seq.]
- 7.4 Following the Preliminary Environmental Information Report significant changes were made to the project to reduce its lateral spread to mitigate the horizontal spread of the turbines, resulting in more open sea separation between EA2 and EA1N and a reduced lateral spread of wind turbines from various viewpoints, with increased distance offshore achieved for viewpoints to the north of the SCHAONB [ER 9.3.3 et seq.].

Seascapes Impacts

- 7.5 The ES notes that the seascapes of Suffolk, south Norfolk and north Essex are valued natural and cultural assets, containing important habitats which contribute to the setting of designated landscapes (notably the SCHAONB) which are important from an economic perspective and contribute to the culture and identity of local communities [ER 9.3.8].
- 7.6 The wind farm lies within the Seascape Character Type (“SCT”) Offshore Waters, which is visually unified with an expansive open character and influenced by the presence of commercial shipping vessels. The existing Greater Gabbard and Galloper windfarms form a key characteristic in its baseline. The windfarm is also located 14.4km from the Coastal waters SCT which runs parallel to the coast. [ER 9.3.9] It is located approximately 26.4km from an area of Nearshore Waters SCT which forms the immediate seascape setting along the coastline of the SCHAONB [ER 9.3.18].
- 7.7 The Environmental Statement considered that for the Offshore Waters SCT the effect of construction, operation and decommissioning would not be significant largely due to the expansive scale of the area, but that it would result in changes to the seascape character perceived from land, particularly the portion that forms the seascape setting of the AONB where the effects would be significant on the receptors from where the changes are perceived, particularly the AONB and the coastal landscape/seascape types that form its immediate coastal edge and nearshore waters [ER 9.3.17].
- 7.8 The Nearshore Waters SCT is assessed as having a high sensitivity to change from the construction and operation of the offshore infrastructure [ER 9.3.19]. The construction and operation of the windfarm is assessed as resulting in a medium magnitude of change and

having significant effects on the seascape character of the Nearshore Waters between Kessingland and Orford Ness, caused by the addition of elements on the sea skyline which will partially alter the visual relationship of the seascape with the coastline, resulting in partial loss of an open sea skyline in the backdrop of offshore waters, appearing as an additional element in the simple sea/sky composition and providing a further focal point in the views offshore. The views become not significant in the southern part of the SCT where changes are reduced to the distance and the presence of the Galloper and Greater Gabbard windfarms. [ER 9.3.20]

Landscape Impacts

- 7.9 The Landscape Character Type (“LCT”) Coastal Dunes and Shingle Ridges is contained in narrow bands along the coast. Its seascape setting is described as an important attribute of its character with open unfettered sea views. Effects are considered significant between Southwold and the north side of Orford Ness, the closest section of coastline, wholly within the AONB and Heritage Coast, due to the increase in visual clutter/complexity in the pattern of elements visible offshore and the introduction of a new wind turbine layer to the simple landscape composition on the sea skyline. In other parts of this LCT the effect is considered not significant. [ER 9.3.22]
- 7.10 The Estate Sandlands LCT has limited association with the sea as it covers primarily inland areas and is often influenced by plantation forestry or agricultural landscapes. Effects are considered significant only in the Covehithe to Benacre and Eason Bavents area and the Dunwich Heaths/Ciffs area, because of the distance from the proposed windfarm and the scale of existing expansive views where available [ER 9.3.23].
- 7.11 The Coastal Levels LCT is found in a number of areas along the coast and alongside estuaries. Effects are considered not significant due to intervening dune/shingle landforms between it and the sea in many instances [ER 9.3.24].
- 7.12 The Open Coastal Fens LCT is located on the coast between Walberswick and Dunwich: effects are considered not significant due to the degree of concealment/screening by the dunes/shingle ridges between this Character Type and the sea [ER 9.3.25].
- 7.13 The SCHAONB is of high value for its habitat, natural landscape, as a major tourist destination, and for its cultural heritage value (reflected in its Heritage Coast designation). The ES concluded that the effects on the AONB’s special qualities during construction and operation are not significant. The construction and operation of the windfarm would result in some changes to the Landscape Quality perceived from the AONB as a result of views from the AONB to the windfarm, rather than within the AONB. The Relative Wildness of the AONB includes physical attributes and perceptual responses: the physical attributes would not be affected, and the ES concludes that the location of the windfarm on the horizon would not alter the perception of big ‘Suffolk Skies’ and the openness and exposure experienced from the coastline and Sandling Heath would continue to be experienced. Although the introduction of the windfarm would introduce a moving element into the visual tranquillity of the AONB, the distance and the slow visual movement of the rotors would reduce such effects. Night-time lighting would be viewed at long distance and in the context of existing windfarm lighting. [ER 9.3.26 et seq.]

Visual Impacts

- 7.14 The effects of construction and decommissioning was assessed as significant for ten viewpoints, parts of three settlements, and four sections of the Suffolk Coast Path covering 6.6km (7.5%) of the full route [ER 9.3.33 et seq.].

Cumulative Effects

- 7.15 Significant cumulative effects with East Anglia ONE North were identified in the Nearshore SCT between Kessingland and Orford Ness and the Coastal Waters SCT from Covehithe to Aldeburgh. Cumulative effects with East Anglia ONE North were identified on the Coastal Dunes and Shingle Ridges at Kessingland and from Southwold to the north of Orford Ness, the Coastal Levels LCT at Southwold Harbour and the mouth of the River Blyth, and the Estate Sandlands from Covehithe to Benacre and Easton Bavents, and Walberswick to Westleton and Dunwich in the localised area at Dunwich Heath/Cliffs. There would be significant impacts on 12 viewpoints. There would be significant impacts on parts of five settlements. There would be significant impacts on six sections of the Suffolk Coastal Path. [ER 9.3.37].
- 7.16 Cumulative effects on the special qualities of the SCHAONB are considered to be very similar to those for the Proposed Development alone [ER 9.3.38]. The cumulative effect from East Anglia TWO and East Anglia ONE North is assessed as significant and of medium magnitude on the perception of specific landscape, scenic and relative wildness qualities of the SCHAONB [ER 9.3.39].
- 7.17 Significant cumulative effects between East Anglia TWO and the Sizewell C Project are predicted for the Nearshore Waters SCT between Kessingland to Orford Ness, the Coastal Dunes and Shingle Ridges LCT between Southwold and the north side of Orford Ness, and the Estate Sandlands LCT area covering Leiston and Aldingham to Snape, Thorpeness and Aldeburgh; viewpoints at Dunwich Heath and Beach, and Sizewell Beach; and three sections of the Suffolk Coast Path [ER 9.3.40]. Cumulative impacts on the SCHAONB from the construction of Sizewell C and East Anglia ONE North and East Anglia TWO are likely to extend between Southwold and Aldeburgh, with the highest magnitude for coastal areas between Dunwich to Thorpeness. The construction and operation are assessed as having significant effects on the landscape and scenic qualities of this area and arise most directly from Sizewell C. [ER 9.3.41 et seq.]

Planning Issues

- 7.18 The Joint East Suffolk Council and Suffolk County Council Local Impact Report stated that there are no significant impacts on the SCHAONB arising from East Anglia ONE North, but cumulatively with East Anglia TWO there would be significant adverse landscape and visual effects on the Suffolk coast, including on the character and special qualities of the AONB [ER 9.4.1].
- 7.19 Natural England's Relevant Representation stated that significant adverse effects on landscape and visual receptors in the northern portion of the SCHAONB are predicted and that these would adversely affect the special qualities of the AONB [ER 9.4.3]. NE noted that approximately 13% of the array, and potentially 26%, would be the source of significant adverse effects [ER 9.5.4].
- 7.20 Relevant Representations expressing concerns about seascape issues were received from various parties [ER 9.4.10]. Southwold Town Council were concerned about the effect on the tranquillity and wildness of the AONB seascape [ER 9.4.11]. The SCHAONB raised

concerns over the landscape and visual impact on the setting of the AONB and the defined natural beauty elements and special qualities of the area [ER 9.4.12]. The Suffolk Preservation Society considered the visual impacts on the special qualities of the AONB would be significant, particularly with the cumulative impacts from East Anglia ONE North [ER 9.4.16]. It considered that the scale of views from the SCHAONB and Heritage Coast would cause significant harm, with significant impacts on seascape quality, scenic quality, relative wildness, relative tranquillity and cultural heritage qualities [ER 9.4.17].

- 7.21 The Applicant acknowledged there would be some visual and cumulative interaction in views of the skyline between Galloper, Greater Gabbard, East Anglia TWO, and East Anglia ONE North. However, it considered that the distances between the coastline and the windfarms would ensure it was unlikely that all of the windfarms would be readily visible at any one time from locations within the SCHAONB and that from many locations there would be substantial gaps between these existing windfarms and the East Anglia Applications. [ER 9.4.14]

Examining Authority Response

- 7.22 The ExA was clear that the turbines closest to the shore would have the most effect on the AONB, but also considered that multiple factors affect sensitivity, including the character of the area of the AONB and viewpoint and the existing views from the viewpoint [ER 9.5.5].
- 7.23 The ExA agreed with the ES's conclusions that significant effects will take place during construction, operation and decommissioning to the character of the Nearshore waters SCT from Kessingland to Orford Ness and that it would affect the open sea skyline in this area in the context the coastal landscape of the SCHAONB [ER 9.5.7].
- 7.24 The ExA noted that views of the seascape in the Coastal Levels LCT are often hindered by the rising of the ground of the dunes and in certain places by vegetation, which hinders and disrupts views and the ExA agrees with the Applicant's assessment of magnitude of change as medium-low and the effect as not significant [ER 9.5.10].
- 7.25 The ExA considered Sizewell power stations and Greater Gabbard and Galloper to be incongruous features within the landscape. The ExA considered that East Anglia TWO would have a similar impact to Greater Gabbard and Galloper and that the magnitude of change on special quality would be medium and therefore the significance of the effect should be altered to significant, long term and reversible. [ER 9.5.17 et seq.] The ExA considered that the overall small percentage of the 'dome' of big Suffolk skies the wind turbines would fill, coupled with the space that would be left between the turbine stems leaving the junction between sea and sky visible led the ExA to conclude that the magnitude of effect should remain as low [ER 9.5.20]. The ExA considered that the distance to the wind farm, combined with the effect of the other man-made influences in the zone between the SCHAONB and the horizon, such as shipping activity, makes it unlikely significant effects to the perception of the SCHAONB's relative wildness will occur, and that the ES's conclusion of magnitude of change of medium-low was appropriate [ER 9.5.22]. The ExA agreed the wind farm would not bring about a significant change to the perceived sense of remoteness, and that the magnitude of change should remain as medium-low [ER 9.5.25]. The ExA considered the ES's conclusion of a medium-low impact on the sense of passing of time and a return to nature was appropriate [ER 9.5.28]. The ExA noted there would be pockets along the coast of the AONB where tranquillity will inevitably be lower: for sections of the AONB coastline around Dunwich and Covehithe, and around Orford Ness, the wind farm would have an adverse impact on tranquillity and that this would not be outweighed by other

factors. The ExA considered that the magnitude of change would be medium and the effect would be significant, long term and reversible [ER 9.5.31].

- 7.26 The ExA agreed with Natural England's concerns about the ES's assessment of magnitude of change at Sizewell beach. The ExA considered that the opportunity to experience high quality views out to sea from Sizewell Beach, which contributes to the natural beauty of the SCHAONB should be recognised. Although the view is interrupted in certain locations by cooling water intake/piers this influence is not universal. The ExA considered that the sensitivity for walkers and beach users should be high, and the effect significant, long term and reversible. [ER 9.5.33 et seq.] The ExA also considered that significant effects would occur of the section of the Suffolk Coastal Path between Minsmere and Sizewell [ER 9.5.37].
- 7.27 The ExA agreed with Natural England that the unique landscape at Orford Ness deserves a precautionary approach, and it considered that the effects to visitors should be increased to significant, long term and reversible [ER 9.5.36].
- 7.28 Natural England considered that East Anglia ONE North will not contribute significantly to the effects when considered cumulatively with East Anglia TWO. The ExA agreed and considered that the ES's conclusions were appropriate [ER 9.5.38].
- 7.29 The ExA noted that EN-1 confirms that AONBs have the highest status of protection in relation to landscape and scenic beauty, and that the Secretary of State should have regard to the statutory purposes which help ensure their continued protection, which also applies when considering applications outside the boundaries of the AONB which might have impacts within. The aim should be to avoid compromising the purposes of designation and projects should be designed sensitively, but the fact that a project will be visible from within a designated area should not in itself be a reason for refusing consent. [ER 9.5.43]
- 7.30 The ExA consider that the statutory purpose of the AONB extends to all parts of its designation, and not the designation as a whole. The Proposed Development would clearly be visible within parts of the SCHAONB. The ExA found significant effects would occur to seven of the 18 special qualities of the SCHAONB. These would occur in geographically limited locations, but it was enough to consider the adverse effects would occur a significant number of times throughout the year and especially in the summer months when the visitors to the SCHAONB would be expected to be highest. [ER 9.5.49 et seq.]
- 7.31 However, the ExA considered the Proposed Development would not undermine the statutory purpose of the SCHAONB: harm is caused to less than half the number of the AONB's special qualities and this is limited to certain locations on the coastal extent of the AONB. The ExA acknowledged significant harm would be caused to these qualities, but notes this amounts to less than half the AONB's special qualities and is limited to certain locations on the coastal extent of the AONB. The ExA considered that whilst significant harm would be caused to these qualities and areas, this would not compromise the purpose of the designation, and the SCHAONB would remain an areas of outstanding natural beauty and the reasons for designating it would also remain. [ER 9.5.50 et seq.]
- 7.32 The ExA noted the existence of a section 111 Agreement between East Suffolk Council and the Applicant, with funding supporting access, environmental and ecological enhancements to the AONB due to significant residual impacts identified from the offshore turbines. The ExA noted the Applicant did not ask the ExA to attach weight to the Agreement. The ExA concluded that it was unable to conclude that it met the relevant tests for planning obligation, and ascribed no weight to it. [ER 9.5.53 et seq. and 9.6.1]

Conclusions

- 7.33 The ExA considered there would be significant adverse effects during construction, operation and decommissioning to the Nearshore Waters SCT from Kessingland to Orford Ness, and significant adverse landscape impacts during construction, operation and decommissioning to the Coastal Dunes and Shingle Ridge LCT between Southwold and the north side of Orford Ness; and to the Covehithe to Benacre and Easton Bavents area and the Dunwich Heaths/Cliffs areas of Estate Sandlands LCT. The ExA considered there would be significant adverse effects on a number of special qualities of the SCHAONB, and significant adverse visual effects on a number of receptors, but would not undermine the statutory purpose of the AONB and would not compromise the purposes of its designation. The ExA considers that East Anglia ONE North will not contribute significantly to the cumulative effects of the two projects combined. [ER 9.6.1 et seq.]
- 7.34 The ExA considered that the harm to the SCHAONB should have medium negative weight to be carried forward into the planning balance. [ER 9.6.2]
- 7.35 The Secretary of State considers that the Proposed Development will have significant effects on landscape and seascape features and on elements of the SCHAONB. He considers that these impacts are increased when considered cumulatively with East Anglia ONE North, Great Gabbard and Sizewell C. He accords these impacts medium negative weight in the planning balance.

8 Onshore Ecology

- 8.1 The ExA notes [ER 10.2.1 et seq.] that NPS EN-1 sets out the requirements of the applicant and decision maker in relation to onshore ecology, for example, that the decision maker should ensure that appropriate weight is attached to designated sites of international, national and local importance [ER 10.2.5]. Policy SCLP10.1 of the East Suffolk Council Local Plan [ER 10.2.7] states that, amongst other considerations: *“All development should follow a hierarchy of seeking firstly to avoid impacts, mitigate for impacts so as to make them insignificant for biodiversity, or as a last resort compensate for losses that cannot be avoided or mitigated for.”*
- 8.2 The Applicant's assessment [ER 10.3.5] concludes that except for a moderate adverse (short term) effect predicted to roosting bats, which would reduce to minor adverse in the long term, after mitigation there would be no residual significant effects during the construction phase of the Proposed Development.
- 8.3 The Applicant embedded [ER 10.3.4] a variety of mitigation and best practice measures into the project design, from locating the onshore cable route to minimise impacts on designated sites, to the commitment in the OLEMS for mitigation measures to reflect survey results.
- 8.4 The Applicant noted [ER 10.3.4] that 89% of the habitat within the onshore development area consisted of arable land, which it considered to be of low ecological importance.
- 8.5 The Applicant's assessment of cumulative impacts for the Proposed Development and the East Anglia ONE North project under a worst-case construction scenario where East Anglia ONE North and East Anglia TWO are constructed sequentially [ER 10.3.7] contended that impacts are considered no greater than the other East Anglia project due to their proposed mitigation and management plans. With regards to potential cumulative effects with future projects, the Applicant submitted an Extension of National Grid Substation Appraisal at Deadline 8 of the examination [ER 10.3.8], which concluded that possible future extensions

to accommodate other projects would enlarge the footprint of the National Grid substation and potentially increase the magnitude of effects.

Planning Issues and Examining Authority Response

Assessment Methodologies and Pre-Commencement Surveys

- 8.6 During examination, concerns were raised [ER 10.4.3 et seq.] by Natural England and other IPs that some baseline ecological surveys did not follow best practice, including some surveys being undertaken outside of the optimal survey season. The Applicant subsequently undertook further survey work of the area to the east and west of the Hundred River in May 2021 and submitted a Hundred River Ecology Survey Report [ER 10.4.5].
- 8.7 At the close of examination Natural England considered that, with the exception of areas adjacent to the Hundred River (see paragraph 8.16), sufficient survey data had been collected to inform the assessment [ER 10.5.5]. The ExA considers that the Applicant has adequately demonstrated that certain species such as otter and water vole are not present at the site, and that the range of pre-construction surveys for species is appropriate and adequately secured in the draft Order.

Biodiversity Net Gain and Ecological Enhancement

- 8.8 The LIR did not consider that the Applicant had adequately demonstrated that the Proposed Development would deliver ecological enhancements as required in NPS EN-1 [ER 10.4.6 et seq.]. The Applicant contended no net loss of biodiversity and identified opportunities for ecological enhancement.
- 8.9 Overall, the ExA is satisfied [ER 10.5.7 et seq.] that the Applicant has demonstrated that as well as mitigating for the effects of the Proposed Development there are opportunities for ecological enhancement in the longer term, and that the draft Order secures the necessary management and monitoring obligations via the OLEMS, and as such, complies with the requirements of NPS EN-1.

Impacts of Noise, Lighting and Emissions on Ecological Receptors

- 8.10 By the close of examination, there were no outstanding concerns [ER 10.5.9] from Natural England relating to the conclusion of the assessment of impacts on ecological receptors, but ESC / SCC did not agree regarding NO_x emissions and acid depositing arising from non-road mobile machinery ("NRMM"). However, in the final SoCG between ESC / SCC and the Applicant, the ExA note that the councils now deferred to Natural England on this matter.
- 8.11 ESC / SCC did not agree [ER 10.5.10] that the assessment of noise effects on ecological receptors during operation was appropriate and sufficient, however, the ExA states that it has not been presented with any substantive evidence that operational noise from the substation would give rise to significant adverse effects on ecological receptors, and considers that the potential impacts of noise have been properly assessed and would not be significantly adverse.
- 8.12 The ExA agrees that, due to landfall Horizontal Directional Drilling ("HDD") works, NRMM emissions would give rise to elevated NO_x concentrations and nitrogen and acid deposition on the eastern part of the Leiston – Aldeburgh SSSI ("LASSSI"). However, the ExA considers [ER 10.5.13] that no conclusive evidence has been presented to disagree with the Applicants assessment that the receptor locations within the LASSSI do not contribute to the overall function and integrity of the LASSSI and its qualifying features. The ExA considers [ER 10.5.15] that there would be no significant adverse effects on onshore

ecology receptors from either noise, lighting or emissions arising from the Proposed Development.

Designated Sites, Particularly Leiston – Aldeburgh SSSI (“LASSSI”)

- 8.13 A stretch of the proposed cable corridor would cross an area further inland that is jointly designated as the Sandlings SPA and LASSSI [ER 10.4.19], additionally, the landfall area coincides with the eastern part of the LASSSI, to the north and south of Thorpeness.
- 8.14 During examination concerns were raised [ER 10.4.20 et seq.] by Natural England and ESC / SCC regarding direct impacts from HDD at the landfall, and about the impacts on the LASSSI further inland due to disturbance to birds which are qualifying features of the LASSSI. ESC / SCC stated a preference for the open cut trenching method through the LASSSI, due to a shorter period of construction than trenchless techniques, thereby reducing potential disturbance to species. Conversely Natural England stated [ER 10.4.22] a preference for a trenchless crossing of the SPA / LASSSI to avoid loss of supporting habitat. Final methodology for the trenching has been left subject to confirmation at the detailed design stage [ER 10.5.18].
- 8.15 Natural England agreed [ER 10.4.23 et seq.] that the Applicant’s assessment of potential impacts on the LASSSI resulting from upstream crossing of the Hundred River was acceptable and agreed that the embedded mitigation for the LASSSI was appropriate and sufficient. The ExA is satisfied [ER 10.5.21] that the potential impacts on the LASSSI have been adequately assessed and minimised as far as practicable.

The Hundred River and its Surrounding Area

- 8.16 The Applicant proposed [ER 10.4.27] an open cut methodology for the cable route to cross the Hundred River, subject to being finalised post-consent. During examination, SEAS [ER 10.4.30] contended that the area of woodland adjacent to the Hundred River crossing comprised of wet woodland, a Priority Habitat. In response, the Applicant conducted [ER 10.4.31 et seq.] a further walkover survey in May 2021 and recorded no wet woodland species. Ecological Officers from ESC and SCC confirmed [ER 10.4.33] the habitat was not wet woodland, as defined by the Joint Nature Conservation Committee. Natural England had previously stated [ER 10.4.34] that the area was unlikely to support wet woodland, but at the close of examination considered that there remained uncertainty about the ecological importance of the woodland. Natural England and SEAS maintained concerns [ER 10.4.36] that the habitat may support the nationally scarce hairy dragonfly, which is a qualifying species of the LASSSI. The Applicant conducted further surveys of land adjacent to the Hundred River [ER 10.4.37 et seq.] and concluded that the riparian habitats of this part of the Hundred River did not provide suitable habitat for hairy dragonfly.
- 8.17 At the close of examination, ESC / SCC agreed [ER 10.5.22] that the ES adequately assessed the impacts on watercourses, and that embedded mitigation and monitoring was appropriate and sufficient. The ExA was satisfied [ER 10.5.24] with the ecological surveys and agrees that the area adjacent to the Hundred River crossing is not wet woodland. The ExA notes [ER 10.5.25] that pre-construction surveys of invertebrates including hairy dragonfly are secured through the OLEMS, and that these surveys will inform species-specific mitigation measures. The ExA concludes [ER 10.5.26 et seq.] that the Proposed Development is unlikely to give rise to any adverse impact on wet woodland and hairy dragonfly, and would give rise to no significant adverse impacts on habitat either side of the Hundred River, both alone and cumulatively.

Hedgerows, Woodland and Trees

- 8.18 During the examination numerous concerns were raised in respect of hedgerows, woodland and trees [ER 10.4.39 et seq.], for example Friston Parish Council and The Woodland Trust referenced the potential impact of the development on ancient woodland. The Applicant responded that the woodland and a 15 metre buffer would be retained and therefore there would be no impacts on this habitat.
- 8.19 SASES raised concerns [ER 10.4.41] that the inability to plant trees over the 12 m width of the cable route would affect tree cover in the longer term, and reduce habitat connectivity. The Applicant responded [ER 10.4.46] that the remaining area outside of the cable corridor would be replanted to link areas of trees within the landscape.
- 8.20 The Applicant provided [ER 10.4.45] an updated OLEMS which proposed an increased density of tree planting, and contended that woodland would be replanted equivalent to that lost. The Applicant also proposed [ER 10.4.47 et seq.] a reduction in the width of hedgerow loss where the cable route crosses important hedgerows.
- 8.21 At the close of examination, Natural England agreed [ER 10.4.48] that the embedded mitigation for hedgerows was appropriate and sufficient, with no specific reference made to woodland and trees. ESC / SCC agreed that the embedded mitigation and monitoring for trees and woodland was appropriate but did not agree that the period for hedgerows to be restored to their target condition was appropriate. The ExA agrees with ESC / SCC [ER 10.5.30] but was of the view that this would not significantly alter the impacts of the Proposed Development.
- 8.22 The ExA considered [ER 10.5.30 et seq.] that mitigation measures are adequately secured in the draft Order, including a 10-year aftercare period for certain works areas, and that the impact of the Proposed Development alone and cumulatively would be minor adverse in the short-term, and neutral in the longer term.

Bats

- 8.23 Many IPs including Natural England raised concerns [ER 10.4.50] regarding the potential loss of roosting sites and fragmentation of foraging and commuting habitat for bats due to the loss of hedgerows. The Applicant contended [ER 10.4.52 et seq.] that embedded mitigation would minimise hedgerow losses, removed hedgerow sections would be replanted in the first available planting season following constructions, and proposed to use hazel hurdles or similar structures to bridge hedgerow gaps.
- 8.24 The Applicant predicted [ER10.4.51] that cumulative impacts arising from the potential National Grid substation extensions could also result in the loss of additional hedgerow.
- 8.25 By the close of examination, the impact on bats had been agreed between the Applicant and Natural England, and ESC / SCC agreed [ER 10.5.34 et seq.] that the embedded mitigation and monitoring for bats was appropriate and sufficient. However, the ExA agrees with ESC / SCC's concern that the time for the hedgerow planting to provide suitable habitats for bats would be longer than predicted, but this would be mitigated for by the use of temporary structures to provide corridors until the hedgerows establish.
- 8.26 ESC maintained concerns [ER 10.5.36] that there was not adequate assessment of potential noise impacts on bats. The ExA states that it has not been presented with any evidence that particularly noise-sensitive bat species are present, or if they were present, that they would be affected by noise resulting from the Proposed Development. The ExA considers the

range of bat survey techniques to be appropriate, and notes that pre-construction bat activity and roost surveys are secured through the draft Order.

- 8.27 The ExA considers [ER 10.5.38] that under a worst-case scenario of sequential construction of the cable routes for each of the East Anglia projects, the cumulative effects on bats would not be significantly more adverse than for the Proposed Development alone.
- 8.28 Overall, the ExA considers [ER 10.5.39] that the impact of the Proposed Development alone and cumulatively on bats would be moderate adverse in the short-term, and neutral in the medium to long term.

Badgers

- 8.29 The ExA notes [ER 10.5.40 et seq.] that at the end of examination, the assessment of effects on badgers had been largely agreed between the Applicant and Natural England, however, detailed design for the Proposed Development had not been established and Natural England considered that updated survey data should have been included to provide the most recent assessment of locations of badger setts. The ExA notes [ER 10.5.43] that a pre-construction survey to assess existing setts and identify new ones prior to construction operations is secured through the draft Order.
- 8.30 At the close of examination, Natural England had not issued a Letter of No Impediment ("LONI") and did not consider this issue resolved [ER 10.4.60]. Through his first consultation letter of 2 November 2021, the Secretary of State requested Natural England to provide its views on the prospect of it issuing a LONI. Natural England replied that a draft LONI had been issued to the Applicant on 4 August 2021, and that subject to revisions to the Method Statement, which the Applicant supports, Natural England foresee no impediment to a licence being issued. The Secretary of State therefore considers this matter resolved.
- 8.31 Based on the information available at the close of examination, the ExA concludes [ER 10.5.45] that the Proposed Development alone and cumulatively has potential for minor adverse impacts on badgers. Considering this and the responses to his consultation letters, the Secretary of State agrees.

Amphibians

- 8.32 Throughout examination, Natural England had concerns [ER 10.4.64 et seq.] regarding the embedded mitigation for great crested newt ("GCN"), and this issue persisted such that at close of examination a LONI had not been provided for GCN.
- 8.33 Through his first consultation letter of 2 November 2021, the Secretary of State requested the Applicant to confirm that the preferred option to progress licence applications had been agreed with Natural England. In response the Applicant confirmed it had agreed with Natural England that District Level Licencing ("DLL") was appropriate and submitted the required documentation. Natural England commented that it was unable to provide a draft LONI due to outstanding uncertainty regarding survey data and the inadequate scale of mitigation measures and confirmed receipt of the DLL enquiry on 23 November 2021. Through his second consultation letter of 20 December 2021, the Secretary of State requested the Applicant and Natural England to provide an update on the DLL submission and whether an Impact Assessment and Conservation Payment Certificate ("IACPC") had been awarded. Natural England replied that the IACPC was awarded on 8 December 2021. The Secretary of State therefore considers this matter resolved.

- 8.34 Based on the information available at the close of examination, the ExA concluded [ER 10.5.49] that the Proposed Development has potential for minor adverse impacts on GCN. Considering this and the responses to his consultation letters, the Secretary of State agrees.

Onshore Ornithology

- 8.35 The Applicant committed [ER 10.5.50] to embedded mitigation such as undertaking works crossing the Sandlings SPA and LASSSI outside of the bird breeding season and installation of ducting for both East Anglia One North and East Anglia TWO concurrently to limit cumulative impacts on birds [ER 10.5.53].
- 8.36 During examination, several IPs, including Natural England, raised concerns [ER 10.4.66] regarding the loss of habitat which provides suitable nesting habitat for nightingale and potentially turtle dove, which are both features of the LASSSI, due to open cut trenching.
- 8.37 The ExA notes [ER 10.4.68] that additional mitigation measures are set out in the OLEMS, such as the creation of a supplementary feeding area for turtle dove, and the provision of functional habitat for breeding nightingale through the targeted management of existing vegetation. Natural England considered [ER 10.4.69] that the proposed mitigation should be available and being used by the species before construction works commence, however the ExA considered that provision of suitable mitigation in itself was adequate. The ExA concluded [ER 10.5.54] that the Proposed Development both and alone and cumulatively has the potential for short term minor adverse impacts on onshore ornithology, and broadly neutral impacts in the longer term.

Reptiles

- 8.38 At the close of examination, there were no areas of outstanding disagreement [ER 10.5.58] between the Applicant and Natural England relating to reptiles, and ESC / SCC agree that the ES adequately assessed impacts on reptiles. Whilst the ExA concurs [ER 10.5.59] with the Applicant's assessment of a minor adverse impact on reptiles, it also notes that seven areas have been identified as containing suitable habitat for reptiles and a pre-construction species survey for reptiles will not be undertaken. Further, whilst the Applicant states [ER 10.5.56 et seq.] that proposed mitigation measures will be set out in a Precautionary Method of Working ("PMoW"), the ExA considers there to be a degree of ambiguity in the final OLEMS regarding the PMoW drafting and authorisation process, and the need for an Ecological Clerk of Works ("ECoW") to be present. Therefore, the ExA recommends [ER 10.5.60 et seq.] that the Order be amended to include specific reference to the submission of a PMoW for reptiles, through Requirement 21(1)(e) of the recommended Order. The Secretary of State agrees with the ExA's recommendation and has included this in the final Order and therefore considers matters relating to reptiles resolved.

Cumulative Impacts

- 8.39 The ExA considers [ER 10.5.63] that the commitment by the Applicant to install the ducting for the second project alongside the cabling for the first project would significantly reduce the overall disturbance compared to sequential construction of the two projects.
- 8.40 ESC / SCC considered [ER 10.5.66 et seq.] that the assessment of cumulative impacts required updating to consider potential new projects and delays to timelines for existing projects. The ExA states [ER 10.5.68] that it has not been presented with substantive evidence to the contrary in regard to the potential for other plans and projects, including Sizewell C, to share onshore ecological impact pathways with the Proposed Development, and that it is unlikely that any other plans or projects, apart from the East Anglia ONE North project and the potential National Grid substation extensions, would impact directly on the

same ecological receptors as the proposed development. The ExA concludes [ER 10.5.70 et seq.] that cumulative impacts would be greater than for the Proposed Development alone but not to a significant degree.

Conclusions

- 8.41 At the close of examination, most matters relating to onshore ecology were agreed between the Applicant, Natural England, and ESC / SCC respectively. The Secretary of State considers the responses to his consultation letters resolved outstanding issues regarding badgers and GCN. The ExA considered that impacts of the Proposed Development on the above-mentioned receptors would be no greater than minor adverse, with the exception of bats for which the short-term impact is moderate adverse. The ExA concluded [ER 10.6.1] that the impacts on onshore ecology of the Proposed Development alone and cumulatively would be negative in weight and of low significance overall, and that the Proposed Development would comply with all relevant legislation and policy.
- 8.42 The ExA considers [ER 10.6.1] that proposed ecological enhancement would not be sufficient overall to outweigh the adverse impacts on habitats and species that have been identified, particularly in the short-term, and cannot ascribe an overall positive impact in terms of onshore ecology to the Proposed Development. The Secretary of State agrees with the ExA's conclusions on Onshore Ecology.

9 Coastal Processes

- 9.1 The ExA sets out [ER 11.2.1 et seq.] that section 5.5 of NPS EN-1 considers coastal change and what the planning process should do to ensure that coastal communities continue to prosper and adapt to coastal change. The ExA notes that the decision-maker should be satisfied that any proposed development will be resilient to coastal erosion and deposition, taking account of climate change, during its lifetime. The ExA further notes the Marine Policy Statement ("MPS") highlights the potential for new infrastructure to have impacts on seabed geomorphology and the coastline and for marine plan authorities to seek to minimise and mitigate any geomorphic changes that a development will have on coastal processes.
- 9.2 East Suffolk Council's Policy is set out in the Suffolk Coastal Local Plan (September 2020) – 'Proposals for Major Energy Infrastructure Project' and seeks to ensure that appropriate erosion defences are incorporated into a project to protect the site, including the effects of climate change, are incorporated into the project to protect it during its lifetime. It is noted that other policies and plans [ER 11.2.5–11.2.6] have impacts on proposals for developments along the Suffolk coast.
- 9.3 The ExA notes [ER 11.3.1 et seq.] that the Applicant considered coastal physical processes in its ES and assessed potential impacts related to and arising from changes in those processes. The Applicant also set out how it had assessed the suitability of its proposed landfall locations with the avoidance of potential impacts, as far as possible, on the Coralline Crag formation being one consideration. The Applicant's preferred method of installing the offshore export cable would be HDD from the onshore landfall location to the south of the Coralline Crag with detailed design being refined after further surveying and investigations. The Applicant did not identify any significant cumulative impacts between the Proposed Development and other nearby marine developments.
- 9.4 The ExA sets out [ER 11.4.1] that the local Councils' LIR identified three issues with respect to coastal change [arising from the Proposed Development]: the destabilisation of cliff; the impact on the Coralline Crag outcrop and the exposure of structures required to be installed

at or close to the shoreline (ducts, cable and buildings). The LIR notes [ER 11.4.2] that the destabilisation of the cliff is a key local issue and that [ER 11.4.9] the Coralline Crag outcrop has an important role in stabilising the coastline over the Thorpeness to Dunwich frontage. Finally, the LIR notes [ER 11.4.12] that the proposed structures must be designed with a full understanding of the consequences of coastal change.

- 9.5 The ExA noted [ER 11.5.1 et seq.] that the local community was concerned about drilling under the cliffs, vibration and the potential for destabilisation and accelerated cliff erosion. It also noted that the Applicants prepared a study on coastal change in its ES and that ESC considered the findings to be robust which provided sound evidence for the Applicants to base their cable landing design proposal. (The ExA said it had no reason to disagree.) The ExA records that embedded mitigation, including HDD (the use of which was supported by ESC), was secured by Requirement 13 of the draft Order which requires the preparation of a Landfall Construction Method Statement which has to be approved by ESC, the Environment Agency, the Marine Management Organisation, Natural England and Sizewell B.
- 9.6 The ExA noted the [ER 11.5.5 et seq.] Applicant's intentions to reduce the risk of HDD impacting on the cliff, including locating the entry pit a setback distance of 85 metres from the cliff top and undertaking geotechnical investigations to inform its detailed design. Vibrations from the HDD were expected to be minor as the technique used rotary rather than percussive drilling. In addition, vibration monitoring would be undertaken in the vicinity of the cliffs and if the maximum vibration limit was exceeded then the HDD operation would be stopped – the final Landfall Construction Method Statement would include further information on the vibration monitoring to be undertaken to ensure the integrity of the cliffs would not be compromised. The HDD would avoid [ER 11.5.11] direct interaction with the Coralline Crag outcrop – the ExA notes that Protective Provisions in favour of EDF had been included in the draft Development Consent Order, including a commitment that the Applicant must not undertake cable trenching activities or locate the HDD punch out within the Trenching Restriction Area Exclusion Zone or within the visible extent of the Coralline Crag as confirmed by the Applicants' surveys.
- 9.7 The ExA sets out [ER 11.5.12 et seq.] the Applicant would undertake further monitoring to ensure that any exposure of the ducts at landfall during the operation of the Proposed Development could be recorded, remediated and mitigated.
- 9.8 The ExA concludes [ER 11.5.14] that it is satisfied the effect of the Proposed Development on coastal processes, including cliff stability, the impact on the Coralline Crag and the risk of exposure of the structures had been adequately assessed and mitigated. The ExA is assured that HDD can be delivered and that the design of the Proposed Development, including embedded mitigation, would be resilient to coastal erosion and would not contribute to coastal change. The ExA agrees [ER 11.5.15] that there would be no significant cumulative impacts on marine geology, oceanography and physical processes between the Proposed Development and other nearby marine developments and activities. The ExA takes the view, therefore, that relevant policy tests in NPS EN-1 and in the MPS have been adequately addressed.
- 9.9 The ExA's overall conclusions [ER 11.6.1] are that the effects of the Proposed Development on coastal processes have been adequately assessed and mitigated and that there would be no significant cumulative effects on those processes. In addition, the relevant NPS and MPS policy tests have been met and the issue is a neutral consideration in the overall planning balance. The Secretary of State agrees with the ExA's conclusions.

10 Onshore Water Quality and Resources

- 10.1 The ExA notes [ER 12.2.1] that NPS EN-1 sets out that an applicant should assess the existing status and potential impacts of its project on water quality, water resources and physical characteristics of the water environment and that the decision-maker should give those effects more weight if they would have adverse effects on the achievement of objectives under the Water Framework Directive. The Applicant's assessment of the Proposed Development's potential impact on the water environment, including the catchment areas of the Hundred River, Leiston Beck and The Friston Watercourse, the coastal fringe, groundwater and abstraction for public water supply, concluded that, after mitigation, any residual impacts would be minor adverse [ER 12.3.9–12.3.13]. The ES concluded that in respect of potential cumulative impacts there would be no increase from the minor adverse impacts from the Proposed Development alone [ER 12.3.16].
- 10.2 A key concern during the examination was the impact of the Proposed Development on a private water supply at Ness House. The water supply is derived from a wellhead and serves the Warden's Trust and other residential properties. Concerns included the potential for proposed HDD to disturb/pollute the water supply, possible saline backfilling and the risk of toxicity to the aquifer [ER 12.4.3]. Two independent Hydrological Risk Assessments were submitted by the Wardens Trust recommending work to be done before approval for any activities in the vicinity of Ness House. The Wardens Trust also submitted a post examination submission to the Secretary of State reiterating their concerns regarding the private water supply.
- 10.3 In its conclusion, the ExA notes that the Outline Landfall Constructions Method Statement and the Landfall Hydrogeological Risk assessment set out the onshore investigations that would be undertaken including monitoring akin to that proposed in the independent Hydrological Risk Assessments. The Environment Agency was satisfied that the Applicant had satisfactorily assessed the risk to the aquifer during HDD operations at that stage and that adequate further investigations would be undertaken post consent with the Environmental Agency being consulted on the findings of hydrological risk assessments undertaken prior to the relevant works being commenced. Those investigations are detailed in the Outline Landfall Construction Method Statement and Outline Code of Practice Plan which are secured by Requirements 13 and 22 in the draft Order. The ExA agreed with the Environment Agency's conclusions on this issue.
- 10.4 Overall, the ExA concluded [ER 12.6.1] the Proposed Development's impacts on water quality and resources had been adequately assessed and mitigated, there would be no significant cumulative effect on water quality and resources, the relevant NPS tests have been met and the issue is a neutral consideration in the overall planning balance.
- 10.5 The Secretary of State agrees with the ExA's conclusion on water quality and resources.

11 Noise, Nuisance and Health Effects Onshore

Noise and Vibration

- 11.1 The ExA notes [ER 13.2.1 et seq.] that NPS EN-1 acknowledges that excessive noise can have wide ranging impacts on quality of life, health, and use and enjoyment of areas of value such as quiet places and areas with high landscape quality. It sets out that the applicant should identify noise sensitive premises and areas, and what the applicant should include in the noise assessment. It also states that:
- the noise impact of ancillary activities should also be considered;

- operational noise should be assessed with reference to NPS EN-3 for renewables and NPS EN-5 for electricity networks;
- the project should demonstrate good design through selection of the quietest cost-effective plant available, containing noise within buildings, optimising layout, and use of landscaping, bunds and noise barriers to reduce noise transmission;
- the decision maker should not grant consent unless satisfied that the proposals will:
 - avoid significant adverse impacts on health and quality of life;
 - mitigate and minimise other adverse impacts; and
 - where possible contribute to improvements to health and quality of life through effective management and control of noise and should consider including measurable requirements or specific mitigation to ensure that noise levels do not exceed limits specified in the order.
- The decision maker should also consider additional mitigation measures and may need to consider requiring improved sound insulation to dwellings.

11.2 There are also relevant local plan policies [ER 13.2.9] which states: development proposals should reduce all forms of pollution including noise pollution; proposals for development should protect and enhance the tranquillity and dark skies of East Suffolk; and, ESC will have regard to noise and disturbance with the expectation that developments will not cause an unacceptable loss of amenity for existing and future occupiers in the vicinity.

The Applicant's Case

11.3 The Applicant assessed [ER 13.2.10 et seq.] the noise and vibration effects for residential receptors along the onshore development area, the noise effects due to off-site construction traffic noise, the increased operational noise from the substations, and the cumulative construction noise impacts with other developments. The Applicant's assessment concluded that no significant noise effects are predicted to occur during construction or operation of the Proposed Development, or from cumulative effects with other developments, and that decommissioning impacts are expected to be no greater than those for the construction phase.

Planning Issues

11.4 During the examination [ER 13.2.37], there was extensive discussion between IPs on issues related to noise and vibration effects and noise was mentioned in over 300 Relevant Representations, mostly in respect of construction working hours, impact on peace and tranquillity, and noise from increased traffic. There were also nearly 70 Relevant Representations stating that the operational noise limits were unacceptable. ESC, SCC and SASES disagreed with the Applicant on several issues, the key areas of disagreement are outlined below. The Secretary of State has also received numerous post examination responses which have raised concerns related to noise impacts of the Proposed Development.

Background Sound Level

11.5 ESC and SASES raised several issues on the noise monitoring methodology [ER 13.2.73 et seq.] used by the Applicant and stated that the Applicant should have used an alternative methodology for determining the background sound level for the onshore substation—ESC provided their preferred methodology. SASES also disagreed with the Applicant's approach to determining measured noise data at one of the identified receptors ("SSR9"). The Applicant, however, maintained that the methodology they had used was adequate and

followed industry-accepted guidance and that the method it applied at SSR9 was acceptable because of access restrictions. The ExA concluded [ER 13.2.113] that both the method used by the Applicant and that suggested by ESC for determining background sound levels were valid, however, they disagreed with the Applicant's approach at SSR9.

Operational Noise - Tonality

- 11.6 SASES was not satisfied [ER 13.2.82 et seq.] with the Applicant's position that tonality effects at the substation would be dealt with in the design process, particularly in the case where both projects are built. ESC also considered the lack of consideration of tonality to be a significant risk [ER 13.2.58]. The Applicant stated [ER 13.2.82] that the hum referred to by SASES and ESC is from older transformers in older substations designed to different standards and maintained that sound from the substation will not contain any perceptible tones at any of the receiver locations. Following the Applicant's commitment to a pre-commencement Operational Noise Design Report, ESC was satisfied that concerns about tonality could be adequately considered at the detailed design stage. The ExA [ER 13.2.114] concluded that the Applicant had not provided information to show whether a tonal correction needed to be applied and is therefore relying on tonality being adequately considered and capable of satisfactory mitigation at detailed design stage.

Operational Noise - Constructive Interference

- 11.7 During the examination, SASES raised [ER 13.2.47] the issue of occurrences of constructive interference at the substation site. However, the Applicant stated [ER 13.2.52] that it predicts this situation would occur very infrequently. ESC agreed [ER13.2.54] with SASES that this could be an issue and disagreed with the Applicant that it would be an infrequent occurrence. In response, the Applicant stated [ER 13.2.86] that the East Anglia ONE substation has a pair of identical transformers and a pair of identical shunt reactors to that of the Proposed Development which are located in close proximity but no interference patterns have been observed either there, nor, to the Applicant's knowledge, at any other operational substation. Requirement 12 of the draft Order was then revised to include further provisions to ensure that this type of sound will not be audible at the operational noise assessment locations, the Applicant also committed to providing a pre-commencement Operational Noise Design Report which would require formal agreement from ESC. Subsequently, ESC was satisfied [ER 13.2.87] that any concerns about other acoustic characteristics could be adequately considered at detailed design stage. SASES maintained that constructive interference could occur and disagreed with the Applicant's methodology. The ExA concluded [ER 13.2.115] that interference could occur and noted that the Applicant is relying on concerns about constructive interference being adequately considered and capable of satisfactory mitigation at detailed design stage.

Operational noise assessment method – BS4142

- 11.8 SASES, ESC, SCC and other IPs raised several concerns [ER 13.2.35; 13.2.42; 13.2.43] about the methodology used by the Applicant for the operational noise assessment. Notably, they disagreed with the maximum operational noise levels proposed by the Applicant at receptors near to the substation site. As a result, the Applicant revised [ER 13.2.94] the maximum operational noise levels at several receptors stating that doing so "*provides further confidence that no adverse effects will occur whatsoever*". Consequently, ESC confirmed [ER 13.2.95] that the Applicant's commitment to adopt Best Practicable Means ("BPM") and the reduced operational noise limits now specified in Requirement 27 in the draft Order are consistent with national policy at this stage, although they noted that Development Consent Orders for other substations have a separate low-frequency noise limit (this point was also

raised by SASES). The ExA expressed uncertainty about an example provided by the Applicant to support its maximum operational noise levels and concluded [ER 13.2.116] that:

- *“the Applicant has not demonstrated that the likely operational noise impacts can be mitigated so as to avoid significant adverse effects;*
- *the Applicant is relying on future compliance with the limits in Requirement 27 of the dDCO; however*
- *the Applicant’s commitment to adopt Best Practicable Means (BPM) and the reduced operational noise limits now specified in Requirement 27 in the dDCO are consistent with national policy.”*

Cumulative Effects

11.9 During the examination ESC expressed concerns [ER 13.2.54] about the possibility of ‘noise creep’ occurring due to future projects connecting to the substation site. As a result of this, ESC requested [ER 13.2.55] lower operational noise limits to minimise permanent changes to the existing sound climate, avoid significant adverse impact and control future noise creep. The Applicant committed to including the National Grid substation within the overall cumulative noise limit in Requirement 27 in the draft Order, this was welcomed by ESC, however, it maintained its concerns about noise creep. The ExA noted [ER 13.2.118] the possibility of noise creep but following the Applicant’s commitment to incorporating the National Grid substation into the draft Order, found that cumulative effects have been adequately considered.

Examining Authority’s Conclusion

- 11.10 The ExA concluded [ER 13.2.118 et seq.] that it was in broad agreement with the methodology and assessment of the construction noise impacts and that construction noise impacts were capable of satisfactory mitigation. Additionally, although the ExA noted there were some unresolved issues concerning the operational noise assessment and mitigation, it concluded that the Requirements in the draft Order must nevertheless be met and, consequently, that operational noise impacts can be satisfactorily mitigated. The ExA also concluded that adequate account had been taken of the cumulative noise impacts.
- 11.11 The ExA noted the concerns expressed by the local community and that the Proposed Development may have adverse noise impacts, particularly during operation, on receptors close to the substation infrastructure at Friston. These operational impacts may cause permanent harm and are therefore of medium significance, weighing negatively in the planning balance. The Secretary of State agrees with the ExA’s conclusions on Noise and Vibration.

Air Quality

- 11.12 The ExA notes [ER 13.3.1 et seq.] that NPS EN-1 sets out that infrastructure development can have adverse effects on air quality in the construction, operation and decommissioning phases and that the decision maker should consider whether any additional mitigation measures are needed. Additionally, the decision maker must always take account of any statutory air quality limits and refuse consent if a project will lead to non-compliance.
- 11.13 The ExA notes [ER 13.3.5] that the relevant Local Plan policies support low carbon and renewable energy developments where they are within an area identified as suitable for renewable or low carbon energy or are complementary of the existing environment without causing any significant adverse impacts, particularly relating to residential amenity and air quality, unless those impacts can be appropriately mitigated. The Local Plan policies expect

that development proposals will protect the quality of the environment and minimise and, where possible, reduce all forms of pollution and contamination including air pollution.

The Applicant's Case

- 11.14 All offshore air quality impacts and onshore operational traffic and transport effects were scoped out of the air quality assessment as the impacts during these phases were expected to be limited. Following completion of its assessment, the Applicant [ER 13.3.19] concluded:
- Predicted residual impacts on air quality are not significant;
 - Decommissioning impacts are expected to be no greater than those for the construction phase;
 - There are no transboundary air quality impacts as the onshore development area is not sited near any international boundaries;
 - Interactions of individual impacts on air quality have also been assessed but such impacts are no greater than the originally assessed impacts;
 - No significant cumulative effects are expected to occur between the East Anglia ONE North and East Anglia TWO projects; and
 - There is potential for a cumulative air quality effect with Sizewell C during the construction phase from dust and vehicle emissions. However, the Applicant does not anticipate that they would be significant.

Planning Issues

- 11.15 In the LIR [ER 13.3.26 et seq.], ESC and SCC raised a number of air quality issues relating to construction traffic emissions and cumulative effects. They concluded that additional information was required from the Applicant and several additional mitigation measures were necessary to address the potential air quality impacts adequately and for the Proposed Development to be in accordance with local policy. The Applicant provided the additional information ESC had requested [ER 13.3.32] held further discussions with them regarding possible mitigation [ER 13.3.38], and consequently agreed to additional mitigation measures [ER 13.3.44]. As a result of this, ESC were satisfied [ER 13.3.45] that all outstanding air quality matters had been addressed.
- 11.16 In its Relevant Representation, Public Health England [ER 13.3.29] did not object on the grounds of air quality impacts. Air quality impacts were, however, mentioned in over 200 Relevant Representations, with over 70 representations expressing concerns about impacts on human health related to air quality. In addition to this, SEAS submitted a report during the examination [ER 13.3.41] which detailed its concerns with the air quality assessment, these included concerns about vehicle emissions, the methodology applied in the assessment, and the assessment of cumulative effects.
- 11.17 The ExA concluded [ER 13.3.50] that impacts on air quality would only arise during construction of the Proposed Development and was in broad agreement with both the methodology used and the assessment of impacts. The ExA considered that adequate account had been taken of the cumulative air quality impacts. The ExA further noted that reliance was placed by the Applicant on its ability to satisfy particular air quality requirements in the draft Order at a future date but considered there was no reason why these requirements would not be capable of being met.
- 11.18 Overall, the ExA concluded that the Proposed Development will have adverse air quality impacts during construction, but these impacts will be temporary and adequately mitigated

and are therefore of low significance and negative weight in the planning balance. The Secretary of State agrees with the ExA on this matter.

Light Pollution

- 11.19 The ExA notes [ER 13.4.1 et seq.] the policies within NPS EN-1 and the Local Plan which are relevant to the topic of light pollution.
- 11.20 The Applicant's Assessment states [ER 13.4.7] that no 24-hour construction lighting is anticipated along the cable route except at HDD sites and construction consolidation sites, and no additional lighting is proposed along Grove Road or along the substation access roads. During operation, there will be security lighting around the perimeter fence to enable CCTV, car park lighting, and task related floodlights for repair and maintenance. It also sets out how control of artificial light emissions is proposed during construction and operation of the Proposed Development.
- 11.21 ESC and SCC raised the issue of light pollution [ER 13.4.10] in their LIR and note that it is to be mitigated through Requirements 22 and 25 of the draft Order. The LIR concludes that the proposals to control light pollution would be compliant with local policy, subject to the detail submitted for the artificial lighting schemes for both the construction and operational phases of the Proposed Development.
- 11.22 In its Relevant Representation, Public Health England [ER 13.4.12] did not object on grounds of light pollution. There were, however, over 200 Relevant Representations in total, with the majority expressing concerns about lighting during operations and maintenance, including over 80 representations about impacts on dark skies and around 60 about impacts of lighting on animals.
- 11.23 Although the Applicant did not conduct a specific assessment of cumulative impacts of light pollution, the ExA considered [ER 13.4.21] the issue and was satisfied that because of the spatial separation of relevant projects, that any cumulative effects would be negligible. The ExA noted [ER 13.4.22] that at the close of examination, there were no outstanding issues identified by the Applicant or by ESC in respect of light pollution.
- 11.24 The ExA concluded [ER 13.4.22] that the potential for adverse light pollution impacts to arise is primarily at the substation site during construction and was satisfied that cumulative light pollution impacts would be negligible. Additionally, the ExA was in broad agreement with the material submitted and that any adverse effects are capable of satisfactory mitigation. Overall, the ExA concluded that the Proposed Development would have minor adverse impacts in respect of light pollution, both during construction and operation, but these impacts are capable of satisfactory mitigation and are therefore of low significance and negative weight in the planning balance. The Secretary of State agrees with the ExA's conclusions on this matter.

Impacts on Human Health

- 11.25 The ExA notes [ER 13.5.1 et seq.] the policies within NPS EN-1, NPS EN-5 and the Local Plan which are relevant to the topic of Impacts on Human Health.
- 11.26 The Applicant conducted [ER 13.5.7 et seq.] a human health assessment which considered the cumulative impact on health of other developments and has committed to a range of embedded mitigation measures to manage potential human health impacts. The assessment concluded [ER 13.5.32] that: the main human health effects would arise through the construction process and associated traffic, including noise and dust emissions; that there would be no significant effect on human health for the general population; it is unlikely

that any particular health determinant will have a significant effect on vulnerable groups due to the extensive mitigation proposed; and that no cumulative effects are anticipated to occur.

11.27 In its relevant representation [ER 13.5.34], Public Health England said that

“we acknowledge that the Environmental Statement (ES) has not identified any issues that could significantly affect public health. We are satisfied that the wider determinants of health have been adequately assessed, using a suitable methodology. On the basis of the documentation provided we have no additional comments to make.”

11.28 There were over 200 Relevant Representations in total [ER 13.5.35], with the majority expressing concerns about mental health impacts and over 50 representations about Electric and Magnetic Fields (“EMF”). The Secretary of State has also received several post examination representations which have raised the issue of mental health and wellbeing impacts of the Proposed Development. Additionally, SASES submitted a written representation [ER 13.5.37] which raised a range of health and wellbeing impacts and SEAS submitted [ER 13.5.38] a Health Impact Assessment on both the direct and indirect impacts of a major construction project on a local population.

11.29 At the end of the examination the ExA concluded [ER 13.5.53] that the potential for human health impacts is primarily before and during construction and were in broad agreement that any adverse impacts on human health are capable of satisfactory mitigation. The ExA was satisfied that any cumulative human health impacts would be negligible.

11.30 Overall, the ExA concluded that the Proposed Development may have minor adverse impacts on human health, both before and during construction, but that these impacts are capable of satisfactory mitigation and are therefore of low significance and negative weight in the planning balance. The Secretary of State sees agrees with the ExA’s conclusions on this matter.

Common Law Nuisance and Statutory Nuisance

11.31 The ExA notes [ER 13.6.1 et seq.] the policies within NPS EN-1 which are relevant to the topics of Common Law Nuisance and Statutory Nuisance.

11.32 During the examination, SASES raised concerns [ER 13.6.5] about sections of the draft Order which cover common law nuisance and statutory nuisance. This issue was examined by the ExA [ER 13.6.6] during an issue specific hearing and the ExA concluded [ER 13.6.9] that the provisions in respect of nuisance in the application are satisfactory. The Secretary of State agrees with the ExA’s conclusion on this matter.

12 Transport and Traffic

12.1 The ExA notes [ER 14.2.1] that NPS EN-1 recognises that the transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on the surrounding transport infrastructure. It goes on to state that the decision-maker should ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development, and proposes suitable mitigation measures.

12.2 The ExA also notes [ER 14.2.6 et seq.] the policies relevant to traffic and transport within the Suffolk County Council Local Transport Plan and the East Suffolk Council – Suffolk Coastal Local Plan.

The Applicant's Case

- 12.3 The Applicant's assessment [ER 14.3.33] concluded that impacts arising during construction would be at worst minor adverse, that there would be no significant impacts arising during operation, and that there would only be negligible or minor adverse cumulative impacts between the two projects if both East Anglia ONE North and East Anglia TWO were constructed simultaneously. It also concluded that there would be significant adverse cumulative impacts during construction when the Sizewell projects were included but considered that these impacts would be satisfactorily mitigated by the construction of new roundabouts (as part of the Sizewell development).

Planning Issues

- 12.4 The ExA noted [ER 14.4.6] that transport and traffic issues during construction were a key issue for stakeholders in the pre-application consultation feedback and also a common thread through over 500 Relevant Representations. The Secretary of State has also received numerous post examination submissions which have raised concerns related to transport and traffic. In addition to this, the ExA states [ER 14.1.1] that transport and traffic was identified as a principal issue in its initial assessment.

Abnormal Indivisible Loads

- 12.5 The substation transformers are large and heavy indivisible items which will have to be delivered by road and, due to their size and weight, they are classed as Special Order Abnormal Indivisible Loads ("AIL"). The Applicant's AIL study [ER 14.4.22 et seq.] identified that these loads could come from the ports of either Lowestoft or Felixstowe via the A12. The Lowestoft route is the preferred choice as it is the closest suitable port—in line with the Highways England (now National Highways) Water Preferred Policy.
- 12.6 During the examination, SASES raised several concerns [ER 12.4.27 et seq.] related to AIL movements, the potential traffic they could cause, and the conditions of the roads and structures which AILs would need to navigate. SCC did not object to the AIL movements from the East Anglia ONE North and East Anglia TWO projects but raised concerns in their SoCG regarding the lack of national policy to address the management of AIL routes.
- 12.7 The ExA [ER 14.5.6 et seq.] considered the Applicant's investigation of the available modes of transport for construction traffic and of port related traffic, in addition to the concerns expressed by SCC and other Interested Parties related to AIL movements. The ExA concluded [ER 14.6] that it was satisfied that the Applicant had taken all reasonable steps to minimise transport of AIL by road, in accordance with the Water Preferred Policy and was satisfied that the impacts related to AIL movements would be temporary and of short duration, and that the limited number of AIL could be completed satisfactorily. The ExA suggested that sufficient and careful planning would need to be undertaken by the Applicant to minimise AIL impacts. The ExA considered that the Applicant should consider giving notice of its intentions to local residents, particularly affected landowners, at the earliest opportunity, as part of its communications strategy.

HGV Traffic

A12/A1094 Friday Street Junction

- 12.8 In their LIR, SCC and ESC raised the issue of HGVs turning right on to the A1094 from the A12, the issue was also raised by several other Interested Parties including several local parish councils. As a result, the Applicant proposed additional mitigation measures involving a traffic-signal controlled junction which was agreed with SCC and ESC. Consequently, SCC

stated [ER 14.4.50] that it agreed in principle that the proposal would address its concerns relating to the junction. SASES submitted [ER 14.5.51] a representation suggesting the new layout would cause congestion on the A12—the possible delays were noted by SCC, but they also pointed out that the delays needed to be considered against the impacts on road safety. The ExA considered the position of SASES and SCC [ER 14.5.12] and the traffic signal modelling information provided by the Applicant and noted that the delays to traffic would be minor. The ExA was in broad agreement with the methodology, assessment, and mitigation of impacts, and was satisfied that the Applicant's proposals to install the traffic signal-controlled junction would address the issue of HGV traffic turning right from the A12 on to the A1094 without significant re-routing or delay to other traffic.

HGV on A1094

- 12.9 Impacts from HGV traffic on the A1094 was raised as an issue in the joint LIR [ER 14.4.2] and by several other Interested Parties [ER 14.4.6] including SASES and numerous local residents. Issues raised included that the road had not been designed for HGV traffic, the potential for delays caused by increased traffic, and the possibility of air quality impacts as a result of increased HGV movements. The Applicant stated that its assessment of air quality effects shows that pollutant concentrations along the A1094 will be less than 75% of the statutory air quality objective values and that the commitment to the use of Euro VI vehicles during construction of the Proposed Development will minimise emissions as far as possible. On the topic of traffic delays, the Applicant's assessment predicted that the additional HGV traffic from the Proposed Development would be a 5% increase which would not lead to a significant driver delay. With regards to whether the road had been designed for HGV traffic, the ExA noted [ER 14.5.11] that the A1094 is designated as a 'Zone Distributor Route' on the SCC Lorry Route Network Map and is deemed suitable for the project's HGV traffic. Overall, the ExA was satisfied that the concerns raised by Interested Parties could be adequately addressed through robust monitoring and controls.

HGV in Aldeburgh

- 12.10 The ExA noted [ER 14.5.13] the submissions by SASES and SEAS [ER 14.4.63] in respect of the Applicant's HGV classified count data and considered it likely that the HGV utilised for the Proposed Development would be larger than the HGV currently making the manoeuvre from the A1094 to the B1122. However, the ExA weighed [ER 14.5.13] the arguments put forward by the Applicant and other parties and was satisfied that the limited and temporary disruption at the A1094/B1122 could be adequately controlled and mitigated. Overall, the ExA concluded [ER 14.5.14] that the Applicant's HGV strategy is adequate.

Cumulative Effects

- 12.11 The Applicant considered the cumulative effects of the Proposed Development with the East Anglia ONE North project [ER 14.3.23 et seq.] both if the projects were to be constructed sequentially, and if they were to be constructed simultaneously. The Applicant also undertook a cumulative impact assessment with the Sizewell C project. Subsequently, the Applicant concluded that there would be significant effects at the A12/ A1094 Friday Street junction and at the A12/B1122/A1120 junction at Yoxford, but that these would each be replaced by a new roundabout junction as part of the Sizewell C project. The Applicant concluded [ER 14.3.26] that elsewhere the traffic from the Proposed Development would make a negligible contribution to cumulative effects.
- 12.12 Numerous Relevant Representations submitted [ER 14.4.6] during the examination, and responses received during the post examination consultation periods, raised the issue of

cumulative effects from traffic. It was also raised as an issue by ESC and SCC in their LIR and by several Parish Councils.

- 12.13 In its Clarification Note: Sizewell Projects Cumulative Impact Assessment (Traffic and Transport) [ExA Ref: REP6-043], the Applicant provided additional information on the cumulative effects between the Proposed Development and the Sizewell C Nuclear Power Station. Overall, the ExA [ER 14.5.17] agreed with the Applicant that the majority of the significant cumulative effects are attributable to the Sizewell C project due to the comparatively large number of HGV movements required for the Sizewell C project.
- 12.14 With regards to the inclusion of the Nautilus and Eurolink interconnector projects in the cumulative effects assessment, the Secretary of State notes that Friston is a potential connection point for the National Grid Ventures interconnector projects [ER 14.5.15]. However, the Secretary of State disagrees with the ExA's statement [ER 14.5.17] that satisfactory assumptions could have been made to allow the Nautilus and Eurolink interconnector projects to be included in the Applicant's cumulative impact assessment.
- 12.15 Predicting the future traffic effects of projects for which very few details are available would not be helpful in determining the cumulative effects of the East Anglia ONE North and East Anglia TWO developments, as the elements of the future projects which would contribute to adverse traffic effects are likely to change significantly before their applications are submitted to the Planning Inspectorate. Attempting to predict the traffic movements at this early stage in the projects' lifecycle would rely on ambiguous assumptions and would not result in predictions which accurately represent the cumulative effects of the projects in question, or in mitigation which would adequately reduce the effects. In contrast, when the applications for the Nautilus and Eurolink interconnector projects are further progressed, accurate up-to-date construction programme and traffic and transport information will be available for the East Anglia ONE North, East Anglia TWO and Sizewell C projects which would allow effective mitigation measures to be implemented by the respective developers.
- 12.16 The Secretary of State refers to paragraph 44 of the recent ruling from Mr Justice Holgate on the Norfolk Vanguard offshore windfarm in relation to cumulative effects which states:
- "By the time the ES for the Vanguard project was submitted in June 2018, substantial progress had already been made on Boreas. Grid connection agreements at Necton had been entered into for Vanguard in July 2016 and Boreas in November 2016. The site selection process had already identified preferred substation footprints for both Vanguard and Boreas. The decision had been taken to use HVDC technology for both developments, determining the nature and scale of onshore infrastructure, including substations at Necton. The Boreas team had a pre-application meeting with the Planning Inspectorate on 24 January 2017, a request for a scoping opinion in respect of Boreas was made in May 2017 and the opinion issued in June 2017."*
- 12.17 Unlike the Norfolk Boreas Offshore Wind Farm project, no scoping opinion request has been submitted to the Planning Inspectorate for the Nautilus interconnector project, and it is currently in the early stages of the pre-application phase of the development consent process. So far, the only documentation available on the Planning Inspectorate's website for the Nautilus project is the Section 35 Direction. The Eurolink interconnector project is earlier in the development consent process than Nautilus, and no documentation has yet been submitted to the Planning Inspectorate.

12.18 The Secretary of State also notes that the Applicant's decision not to include these proposed projects in its cumulative effects assessment is supported by the Planning Inspectorate's Advice Note Seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects. Paragraph 3.3.1 of the Advice Note lists the information required to conduct stage 4 of a cumulative effects assessment:

- proposed design and location information;
- proposed programme of construction, operation and decommissioning; and
- environmental assessments that set out baseline data and effects arising from the 'other existing development and/or approved development'.

12.19 As none of the above information was available prior to the close of the East Anglia ONE North and East Anglia TWO examination period for either the Nautilus or Eurolink interconnector projects, the Secretary of State is content that it was not necessary for the Applicant to include these projects in its cumulative effects assessment.

The Examining Authority's Conclusion

12.20 The ExA [ER 14.6] concludes:

- that impacts all relate to the construction phase of the project and that there would be no significant impacts during operation;
- that the Applicant's investigation into the available modes of transport for construction traffic was satisfactory;
- the Applicant's selection of Lowestoft as preferred base port and Felixstowe as reserve in case Lowestoft is unavailable and the Applicant's assessment of port related traffic was satisfactory;
- the Applicant has taken all reasonable steps to minimise transport of AIL by road and that the Applicant's proposals in respect of port selection and movement of AIL were satisfactory, but that a great deal of careful planning will be required to minimise AIL impacts on the highway and on those affected;
- In respect of the potential AIL works at Marlesford, the ExA concluded that the Applicant should consider giving notice of its intentions to local people, and particularly the affected landowners, at the earliest opportunity, as part of its communications strategy;
- that impacts of construction traffic on the local highway network have been minimised and that concerns about the suitability of the A1094 for HGV can be adequately addressed through the Construction Traffic Management Plan secured in Requirement 28 of the draft Order;
- the Applicant's proposals to install traffic signals at the A12/A1094 junction would address the issue of HGV traffic turning right from the A12 to the A1094 without significant re-routing or delay to other traffic; and
- In respect of HGV in Aldeburgh making the manoeuvre between the A1094 and the B1122, the ExA concluded that this can be properly controlled so as not to cause significant problems.

12.21 Overall, the ExA concluded that the Proposed Development will have adverse transport and traffic impacts during construction, particularly during transport of AIL and in respect of HGV on the A1094 and at Aldeburgh, but that provided that robust and effective controls are in operation, these adverse impacts are capable of being satisfactorily managed and minimised; however, these impacts will nevertheless cause harm, albeit temporary, and are

therefore of medium significance and negative weight in the planning balance. The Secretary of State agrees with the ExA's conclusions on Traffic and Transport.

13 Socio-economic Effects Onshore

13.1 The ExA notes [ER 15.2.1 et seq.] the policies within NPS EN-1, the Suffolk Coastal Local Plan, the East Suffolk Economic Growth Plan 2018-2023, the East Suffolk Tourism Strategy 2017-2022 and the New Anglia Local Enterprise Partnership Norfolk and Suffolk Economic Strategy for which are relevant to onshore socio-economic effects. Notably this includes:

- that the Applicant should include an assessment of the socio-economic effects;
- cumulative effects of other projects should be considered;
- the Secretary of State should consider the socio-economic effects of new energy infrastructure and any relevant positive provisions made by the Applicant to mitigate impacts;
- the Secretary of State should consider whether mitigation measures are necessary;
- the Suffolk Coastal Local Plan states:
 - that tourism is a substantial and important part of the overall economy; and
 - proposals will be supported that grow and diversify the local economy, provided that the design and construction does not have an adverse impact on the character of the surrounding area and landscape and provides additional community, cultural or tourism benefits.

13.2 The Applicant's socio-economic assessment considered the short-term and long-term impacts of the Proposed Development on employment and tourism and categorised the main socio-economic effects as being:

- Positive effects – as a result of employment created directly, indirectly or induced by tourism spending by non-residential employees while working on the Proposed Development.
- Negative effects – as a result of tourism and recreation assets affected by physical disturbances, or by tourists being deterred in the long term by the physical infrastructure.

13.3 The Applicant's assessment [ER 15.3.13 – 15.3.21] concluded that the Proposed Development would result in the following beneficial effects:

- the ES considered that during construction non-residential workers would not adversely affect local tourism businesses by displacing visitors, and concluded there would be a major beneficial effect for local businesses as a result of spending in the local economy by these workers;
- moderate beneficial effect as a result of offshore construction;
- moderate beneficial effect as a result of onshore construction;
- major beneficial effect for tourism employment; and
- major beneficial effect for long term employment.

13.4 The Applicant's assessment [ER 15.3.13 – 15.3.21] considered the potential negative impacts of the Proposed Development and concluded:

- Based on the assessment of natural capital and the impacts contained elsewhere in the Environmental Statement for water and air quality, noise and traffic, and landscape, seascape and visual effects, as well as perception, the Applicant's assessment

concluded there would be an effect of negligible significance for local businesses and people working for them;

- Because of the low density of tourism receptors with views of the substation, and a National Grid survey which considered that business operators and recreational users would not be affected by National Grid projects in their area, that the Proposed Development would result in a negligible impact on the tourism industry in Suffolk Coast AONB, Suffolk Coastal District and Suffolk County; and
- That the offshore infrastructure would have an impact of negligible significance for the tourism industry in Suffolk Coast AONB, Suffolk Coastal District and Suffolk County.

Memorandum of Understanding

- 13.5 A non-legally binding Memorandum of Understanding (“MoU”) was agreed between the Applicant and SCC to promote employment and re-skilling opportunities, inform and inspire teachers and students, make best of existing local and national education and skills infrastructure, utilise the Applicant’s existing parent company skills programmes where possible, and work in collaboration with supply chain partners. During the examination the ExA questioned whether it was necessary to secure the MoU by means of a requirement in the Order or as a planning obligation. However, both the Applicant and SCC were of the opinion that this was not necessary, and that the flexible nature of the MoU was beneficial.
- 13.6 SASES considered that there was no information to the verifiable benefits being delivered by the existing East Anglia ONE and East Anglia THREE projects and noted that paragraph 5.12.7 of NPS EN-1 states that limited weight is to be given to assertions of social economic impacts that are not supported by evidence.
- 13.7 The MoU approach to promote employment and re-skilling opportunities and maximise the benefits of investment in the area was considered during the examination [ER 15.4.4 et seq; 15.5.8 et seq.]. However, overall, the ExA noted [ER 15.6.2] the support from the Councils and success of the current schemes, and that the MoU would *“Help to maximise the education, skills and economic benefits of the Proposed Development and would add to the economic benefits of the proposal”*.

Effects on Tourism: Accommodation and Spending Patterns

- 13.8 The ESC and SCC joint LIR expressed concerns that together the East Anglia ONE North and East Anglia TWO projects could create additional demand for accommodation in the peak tourist season, potentially deterring tourists due to occupancy rates or premium prices. The ExA [ER 15.4.10] raised this issue during the examination. Subsequently, the Applicant submitted a Socio-economics and Tourism Clarification Note which took into account the latest worker numbers from Sizewell C and considered that there would be excess demand only in peak season and only in the unlikely scenario where East Anglia ONE North and East Anglia TWO were constructed in parallel and this coincided with the peak of Sizewell C construction. ESC stated [ER 15.4.11] at Deadline 2 that it accepted that the updated Sizewell C information would not materially change the Applicant’s original assessment and that they agreed with the Applicant’s conclusions.
- 13.9 SASES voiced [ER 15.4.12] several issues with the Applicant’s approach, including:
- that the peak season is when the tourism industry makes the majority of its profits; and
 - that there is no comparison between the spending levels and patterns of non-resident workers and that of tourists.

13.10 SEAS noted [ER 15.4.12] issues with some of the Sizewell C statistics and highlighted accommodation issues with long term workers at Hinkley Point C.

13.11 The ExA noted [ER 15.5.12] the Councils' agreement with the Applicant that there would only be excess demand in the peak season *and* if East Anglia ONE North and East Anglia TWO are constructed in parallel with Sizewell C—which was considered unlikely to happen given their respective construction programmes. The ExA also agreed with the Applicant's analysis and highlighted that although non-residential construction workers are likely to contribute less to the local tourism economy than visitors, given the conclusions regarding the limited situations in which excess demand could occur, the ExA considered that this is unlikely to have a significant effect.

Effects on Tourism: Visitor Numbers

13.12 The ExA noted [ER 15.5.13] that *“the question of disbenefits garnered significant representations during the Examination. The range of estimates of any negative effects on tourism caused by the Proposed Development ranged from negligible from the Applicant's point of view to £24 million to £40 million per year (cumulatively with the other East Anglia project and SZC) from the Suffolk Coast Destination Management Organisation (DMO) to £140 million from SEAS.”*

13.13 The following issues related to the tourism impact of the Proposed Development were raised during the Examination:

- ECS and SEAS [ER 15.4.16] – commented on the Applicant's reliance on desk-based research and stated that they considered the TripAdvisor review to be inadequate;
- The Applicant [ER 15.4.17; 15.4.23; 15.5.14] – with regards to the report from the Suffolk Coast DMO as it did not adequately separate the effects caused by East Anglia ONE North and East Anglia TWO, and that of Sizewell C, and that the Applicant claimed the survey was 'perception based' and questioned the use of certain stimuli within the survey;
- The ExA, ESC, SASES and SEAS [ER 15.4.19 et seq; 15.5.17] – with regards to the Tourism Impact Review [REP1-102] submitted by the Applicant. ESC stated [ER 15.4.19] that the review did not show any comparable volume and value studies that they would normally rely on to analyse trends over time and that while it showed employment impacts in an area close to an AONB and a National Park, most of the projects analysed were not close to areas with similar characteristics to the Suffolk Coast. SASES was also of the view that the Applicant's review did not specifically relate to the area where the Proposed Development is planned. SEAS [REP2-081] considered that the case studies chosen had no resemblance in size, complexity or disruption to the Proposed Development and took issue with some of the statistics used;
- SEAS [ER 15.4.21] – submitted several reports on the impact of increased traffic and the impact of this on levels of tourism [REP5-113, REP8-236]. This issue was also raised by several local businesses;
- The Wardens Trust [ER 15.4.28] — were concerned that the Proposed Development would reduce the viability and attractiveness of the location and the Trust;
- The Applicant [ER 15.5.16] – raised several issues with the SEAS traffic reports and stated that the traffic data chosen, multipliers, and level of local tourism, were based on the (original) DMO report which included Sizewell C within its calculations; and

- SASES and other local groups including several parish councils [ER 15.4.22]: raised concerns about the impact of construction of the Proposed Development on tourist numbers.
- 13.14 At Deadline 13 of the examination, the Suffolk Coast DMO submitted new evidence [ExA Ref: REP13-075] which contained headline findings on new research which attempted to address the issues raised by the Applicant on the original Suffolk Coast DMO report. The updated survey results found that 37% of respondents considered that construction of East Anglia ONE North and East Anglia TWO would deter other people like them from visiting the Suffolk Coast. However, it also found that 55% of respondents considered the positives of having wind turbines off the coast would outweigh the negatives in the construction period.
- 13.15 The ExA expressed reservations about the Applicant's TripAdvisor review [ER 15.5.20] in terms of its ability to identify issues related to construction of a wind farm; and with the Suffolk Coast DMO report [ER 15.5.21] with regards to the original report being *"entangled with the proposal of Sizewell C"* and that the findings were *"submitted at a fairly summarized level"*. However, the ExA noted that the local nature of the surveys used by the DMO were in general a more useful approach than that taken by the Applicant. The ExA also considered [ER 15.5.22] that the evidence submitted by SEAS may overstate the impact on tourism based on the assumptions they used within their report.
- 13.16 The ExA considered [ER 15.5.24] that the village of Friston, particularly the northern edge may be adversely affected in socio-economic terms and noted [ER 15.5.25] the passionate views of the Wardens Trust and considered that changes to the proposed cable corridor that would locate works further from the Trust should assist in alleviating their concerns. However, they noted that the Trust remained concerned.
- 13.17 Overall, the ExA noted the range of estimates for socio-economic disbenefits and concluded [ER 15.6.3] that it was not convinced by the Applicant's evidence and did not agree that the Proposed Development would have no socio-economic disbenefits. The ExA considered [ER 15.6.4] that the Proposed Development would cause some harm to the local economy, particularly around the proposed substation site, cable route and landfall area and that the predicted adverse socio-economic effects may not be as high as those predicted by the DMO but *"would be likely be closer to such levels than the negligible effect predicted by the Applicant"*.

Cumulative Effects

- 13.18 The Applicant's assessment considers [ER 15.3.22] the cumulative effects of the East Anglia ONE North and East Anglia TWO developments if they were to be constructed simultaneously, and if they were to be constructed sequentially. The Applicant's assessment concluded that the cumulative effects would be the same as for the Proposed Development, as set out in paragraph 13.2 - 13.3 above. In terms of tourism and recreational disturbance, the ES considers effects would be negligible but acknowledges that the assessment does not include traffic impacts due to work on a freight management strategy for Sizewell C not being available.
- 13.19 In their Relevant Representation, Norfolk County Council considered [ER 15.4.29] that the Proposed Development needed to address the cumulative impacts on the local labour market and supply chain, fully taking into account other planned Nationally Significant Infrastructure Projects. Several Other Interested Parties also raised concerns about the cumulative impact of the Proposed Development on local tourism in combination with the East Anglia ONE North project, Sizewell C and other energy projects proposed for the area.

For the Secretary of State's consideration of the Applicant's inclusion of other proposed energy projects in the region in the cumulative effects assessment, please refer to paragraphs 12.14 – 12.19.

13.20 The ExA notes [ER 15.5.26] that if the Proposed Development were to be constructed simultaneously with the East Anglia ONE North development, then onshore jobs would increase slightly and offshore jobs would double. Operational job figures would likely near double but would be reduced by economies of scale, and disbenefits would likely remain at a similar level. Conversely, if the East Anglia ONE North and East Anglia TWO developments were constructed sequentially, the employment figures would be the same, but the duration would double. Under this scenario disbenefits would likely double as well, as the sequential building time would increase disturbance to visitors. If both East Anglia ONE North and East Anglia TWO were to be constructed alongside Sizewell C, the ExA notes that there would be significant economic benefits but that the disbenefits would also rise and would be likely to result in a greater detrimental impact on local tourism, both in terms of actual effects and public perception.

Post Examination Representations

13.21 The Secretary of State has received numerous post-examination representations from residents and local business, which raised issues related to socio-economics, such as:

- the importance of tourism to the local economy;
- economic impact on local economy—with regards to tourism, the impacts on the natural beauty of the area and the effect on wildlife and nature based tourism;
- long-term impacts on tourism, as visitors are less likely to return to the area as a result of the disruption caused by the Proposed Development;
- that the cumulative effects of future planned energy projects will impact local tourism; and
- responses from local businesses were received from the Beach View Holiday Park, Britten Pears Arts, James White Drinks, the Suffolk Coast Destination Management Organisation (on behalf of its business members) and from local holiday rental owners.

The Examining Authority's Conclusion

13.22 The ExA [ER 15.6.1] notes that the Proposed Development has the potential to deliver significant employment benefits, would create a significant number of jobs both onshore and offshore and would be likely to provide wages above the national average. The ExA also notes the success of the programmes to maximise the education, skills and economic benefits of previous East Anglia offshore wind farm.

13.23 The ExA concluded the Proposed Development would:

- Deliver a significant number of jobs during construction, both onshore and more significantly offshore. The majority of offshore jobs are likely to come from outside the local area;
- Provide significant employment during operation which would be mainly within Suffolk and Norfolk;
- Provide such jobs which are likely to have wages above the national average and would consequently have wider benefits;
- Through the MoU, help to maximise the education, skills and economic benefits; and

- Cause harm to the local economy, including to tourism, particularly around the proposed substation site, cable route, and landfall area during construction. This is based on the ExA's assessment of the evidence submitted during the examination. Such negative socio-economic effects are likely to be significantly reduced during operation (once the proposed development is constructed).

13.24 Overall, the ExA concluded [ER 15.6.12] that:

- *"The Proposed Development would provide socio-economic benefits. This provides positive weight for the Proposed Development. Likely socio-economic disbenefits reduce this positive weighting to medium.*
- *If constructed simultaneously with the other East Anglia project this weight would increase or reduce if constructed sequentially. Both weights would remain medium. Weighting would be similar if constructed simultaneously with SZC.*
- *The ES accords with the requirements of NPS EN-1 and would comply with policy SCLP4.5 of the Suffolk Coastal Local Plan. Harm to tourism causes conflict with policy SCLP6 of the same plan but this would be outweighed by the positive socio-economics effects of the proposed development."*

13.25 The Secretary of State has taken into account the ExA's analysis and the post examination representations and agrees with the ExA that overall, the socio-economic benefits of the Proposed Development would outweigh the disbenefits.

14 Land Use

14.1 The ExA notes [ER 16.2.1 et seq] the policies within NPS EN-1, the ESC Suffolk Coastal Local Plan, the East Economic Growth Plan 2018-2023 and the New Anglia Local Enterprise Partnership Economic Strategy for Norfolk and Suffolk which are relevant to land use. In particular, NPS-EN-1 states that the decision-maker should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification and also recognises the importance of rights of way, National Trails and other rights of access to land.

Best and Most Versatile Agricultural Land

14.2 The ExA notes [ER 16.1.2] that a significant proportion of the land in the onshore development area is Best and Most Versatile agricultural ("BMV") land, particularly the substation site, which consists of Grade 2 and Grade 3 land.

14.3 The issue of land use was raised in Relevant Representations by ESC and SCC and was also raised in 90 other Relevant Representations, the majority of which specifically raised the issue of the loss of Grade 2 and Grade 3 agricultural land at the substations site.

14.4 The LIR submitted by SCC and ESC questioned the Applicant's assessment of loss of Grade 2 and 3 agricultural land. As a result of this, the Applicant produced a clarification note [ExA REF: REP1-022] which corrected an error in the assessment and concluded that the impact caused by the permanent loss of BMV land would result in a major adverse effect at a site level of the substation. However, the Applicant highlighted that the overall conclusion is that the footprint represents *"a 0.01% of the County's farming resource and is assessed as minor adverse significance in the context of Suffolk."*

14.5 The LIR raised the issue that the potential loss of BMV land should have been taken into account during the connection point decision making.

14.6 As referred to above, paragraph 5.10.15 of NPS EN-1 states that the decision maker should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. The ExA notes [ER 16.5.12] that justification of the siting of the proposed substation and National Grid infrastructure appeared to be on the basis of the site selection process and states:

“ALC is considered under the “community” heading in the assessment of potential locations for the Applicant’s substation but does not appear to be considered as part of the National Grid substation assessment, and minimising loss of BMV agricultural land is not listed as a site selection principle, nor is BMV agricultural land listed as an area to be excluded for either the Applicant’s substation or the National Grid substation [APP-443: Red/Amber/Green (RAG) Assessment for Onshore Substations Site Selection in the Sizewell Area]”.

14.7 Consequently, the ExA concluded that the justification for the loss of BMV land at the proposed substation and National Grid infrastructure site was weak in respect of the policy test in paragraph 5.10.15 and that only limited weight had been placed on loss of BMV land at the proposed substation and National Grid infrastructure site.

14.8 The Secretary of State notes that both the Substation Options Table (page 10) and the National Grid Substation Options Table (page 17) of the Applicant’s Red, Amber, Green Assessment for Onshore Substations Site Selection in the Sizewell Area [ExA Ref: APP-052] contain rows which assess the impact of the respective development on BMV land, and that all the development considerations within the Options Tables were assessed equally, without weighting.

14.9 The Secretary of State has reviewed the Applicant’s Red, Amber, Green Assessment [ExA Ref: APP-052] and disagrees with the ExA’s conclusion that the justification for the loss of BMV land is weak. The Secretary of State considers that the Applicant has followed a robust methodology to assess possible sites for the project substations and the National Grid substation and notes that it undertook regular consultation with a range of parties (including Natural England who are the Secretary of State’s statutory consultee for matters regarding BMV land) and that it sufficiently meets the requirements of relevant policy and legislation. In the case of the substation site, of the 16 sites over 8 zones which met the technical criteria for the substation, only two sites had no impact on BMV land—Option 1a and Option 8a.

- Option 1a is located within the SCHAONB and during consultation the LPAs expressed concern that siting the substations in the eastern half of the Onshore Site Selection Study Area could have a significant impact on the SCHAONB [ES Chapter 4, paragraph 128]. From an engineering perspective, Option 1a also had limited co-location potential. Co-location of the substation and National Grid substation was listed as a primary objective by the Applicant in order to meet the requirements of the Connection and Infrastructure Options Note (“CION”) Process²³, NPS EN-1, the Horlock Rules²⁴ and the Electricity Act 1989²⁵.
- Option 8a is located within the reptile mitigation area for Sizewell C. During consultation in August 2018, EDF Energy indicated that they may be prepared to release a parcel of

²³ <https://www.nationalgrideso.com/document/45791/download>

²⁴ <https://www.nationalgrid.com/sites/default/files/documents/13795-The%20Holford%20Rules.pdf>

²⁵ <https://www.legislation.gov.uk/id/ukpga/1989/29>

land on the corner of Sizewell Gap and Lovers Lane to the Applicant for a potential substation location if suitable alternative mitigation land was identified and delivered by the Applicant (ES Chapter 4, paragraph 171). However, consultation responses from members of the public, local interest groups and statutory stakeholders highlighted concerns regarding the likely impacts of the proposed onshore substations on the SCHAONB and therefore compliance with National Policy. Additionally, this site is less than 500 m from an SPA/ SSSI and mature woodland site and would also use the same access route as Sizewell C, which if utilised, was predicted to result in adverse transport effects [ExA Ref: APP-052].

14.10 In the case of the National Grid substation site, of the 7 sites considered only 1 option had no impact on BMV land:

- Option NG2 – located within the SCHAONB and during consultation the LPAs expressed concern that siting the substations in the eastern half of the Onshore Site Selection Study Area could have a significant impact on the SCHAONB. Additionally, the site was less than 500 m to the Heritage Coast, an SSSI/SPA, and an area of mature woodland. It would also use the same access route as Sizewell C which could result in adverse transport effects [ExA Ref: APP-052].

14.11 Overall, the Secretary of State considers that the loss of BMV land is justified because, the Applicant has considered BMV land during the site selection process for the substation and the National Grid Substation, and because of the benefits provided by the chosen substation site and the Proposed Development's contribution to national energy and net zero targets. The benefits of the chosen substation site include the screening provided to the site by the surrounding woodland and the absence of adverse visual and landscape effects on the SCHAONB. The loss of BMV land is also justified as the Proposed Development will make a significant contribution to the need for low-carbon energy production, as identified in the current and draft NPS EN-1, EN-3, and the Net Zero Strategy²⁶ target to deliver 40 GW of offshore wind by 2030.

14.12 The Secretary of State understands that by not separating Grade 3a and Grade 3b land (Grade 1, 2 and 3a is BMV, Grade 3b is not) the Applicant has taken a precautionary approach to their assessment. However, it would have been beneficial if during the site selection process an estimate of the amount of each specific grade of land required for each site had been provided as this would have allowed a more accurate comparison of the impact on BMV land of each site. Nevertheless, the Secretary of State considers that sufficient weight has been placed on loss of BMV agricultural land during the selection process of the proposed substation and National Grid infrastructure site, and that that the justification for the loss of BMV land satisfies the policy test in paragraph 5.10.15 of NPS EN-1.

Public Rights of Way

14.13 The LIR notes that the Outline PRow strategy is broadly acceptable but will require further detail. Following further consultation with SCC, the Applicant stated during the issue specific hearings that there would be a temporary diversion for each PRow which would be closed temporarily during the construction period of the Proposed Development—so effectively all PRow would remain open. The three PRow which will be permanently closed will be

²⁶ <https://www.gov.uk/government/publications/net-zero-strategy>

replaced by an expanded PRoW network around the substation site. Subsequently, the Proposed Development will result in a negligible adverse effect on PRoWs.

Examining Authority's Conclusion

14.14 The ExA concluded [ER 16.6] that:

- the methodology and assessment of impacts arising both during construction and operation is satisfactory, and consequently that the local impact of agricultural land taken out of existing use permanently is major adverse and therefore significant;
- that due particularly to the close proximity of the construction works to both Thorpeness Common and Sizewell Common the construction impact on common land is greater than negligible;
- that physical disruption to PRoW and farming practices has been taken into account and can be properly mitigated;
- that suitable connection points to the existing overhead line are limited, but concludes that limited weight has been given by the Applicant to the quality of the agricultural land required for the onshore substation and National Grid infrastructure in the site selection process, and consequently concludes that the justification for the loss of BMV land at the proposed substation and National Grid infrastructure site is weak in respect of the policy test in paragraph 5.10.15 of NPS EN-1; and
- that the Proposed Development will have adverse impacts on land use, particularly on agricultural land to be taken out of use permanently, which would cause permanent harm and therefore be of medium significance and negative weight in the planning balance.

14.15 Excluding the justification for the loss of BMV land being weak in respect of the paragraph 5.10.5 policy test in NPS EN-1 (see paragraphs 14.1-14.10), the Secretary of State agrees with the ExA's conclusion.

15 Other Onshore Matters

15.1 The ExA considered all remaining matters, issues and questions raised in the examination in respect of the effects of the Proposed Development onshore and concluded there are none which affect the balance of conclusions reached in the onshore analysis for Chapter 6 to Chapter 16 of the ExA's Report or require any subsequent consideration in respect of the Overarching Analysis, Planning Balance, Land Rights, Statutory Provisions or Conclusions [ER 17.2.1]. The Secretary of State sees no reason to disagree with this analysis.

16 Offshore Ornithology

16.1 Overarching National Policy Statement for Energy EN-1 sets out policy considerations that are of relevance for biodiversity in general. The National Policy Statement for Renewable Energy EN-3 (NPS EN-3) provide offshore wind-specific biodiversity policy to inform decision-making on proposed developments.

16.2 With regards to the ornithological impacts of offshore wind farm projects, paragraph 2.6.101 of NPS EN-3 states that:

16.3 *"Offshore wind farms have the potential to impact on birds through:*

- *Collisions with rotating blades*
- *Direct habitat loss*

- *Disturbance from construction activities such as the movement of construction/decommissioning vessels and piling*
- *Displacement during the operational phase, resulting in loss of foraging/roosting area*
- *Impacts on bird flight times (i.e., barrier effect) and associated increased energy use by birds for commuting flights between roosting and foraging areas”*

16.4 The Marine Policy Statement recognises that offshore wind energy developments have the potential to adversely affect birds through the effects of displacement, barrier effects, and collision.

16.5 Policy BIO1 of the East Inshore and East Offshore Marine Plans states that:

“Appropriate weight should be attached to biodiversity, reflecting the need to protect biodiversity as a whole, taking into account of the best available evidence including on habitats and species that are protected or of conservation importance in the East marine plans and adjacent areas.”

16.6 During the Examination the Applicant made the following changes to the Proposed Development, which had the potential to reduce the impacts on offshore ornithology features [ER 18.3.13]:

- A reduction in the maximum wind turbine tip height from 300m to 282m above lowest astronomical tide; and
- An increase the minimum wind turbine blade tip clearance above sea level from 22m to 24m above mean high water springs.

16.7 The impact assessment takes into account the revised parameters and is based on the realistic worst-case scenario for potential impacts on offshore ornithology [ER 18.3.6].

16.8 The Applicant considered the impacts of the Proposed Development alone and cumulatively with other projects on the following species: kittiwake, gannet, lesser black-backed gull, herring gull, great black-backed gull, gannet, razorbill, guillemot and red-throated diver.

16.9 During the Examination, the Preliminary Environmental Information Reports for Hornsea Project Four (H4), Dudgeon Extension Project (DEP) and Sheringham Extension Project (SEP) became publicly available [ER 18.4.5]. Cumulative impacts were assessed with and without these projects.

16.10 In relation to offshore ornithology matters, the ExA agreed with the Applicant and Natural England that there would be no significant adverse impact on offshore ornithology for any species from the Proposed Development alone [ER 18.6.1].

16.11 With regards to the cumulative assessment, the ExA concluded that, contrary to the Applicant’s assessment, a significant adverse impact could not be ruled out for the Proposed Development when considered cumulatively with other projects (regardless of whether H4, DEP and SEP were included) for the following species:

- Kittiwake (collision)
- Great black-backed gull (collision)
- Guillemot (displacement)
- Razorbill (displacement)
- Red-throated diver (displacement)

- 16.12 The ExA also concluded that, in accordance with the Applicant's assessment, there would be a minor adverse cumulative impact (regardless of whether H4, DEP and SEP were included) for:
- Lesser black-backed gull (collision)
 - Gannet (collision, and collision plus displacement)
- 16.13 The ExA concluded a negligible cumulative impact (regardless of whether H4, DEP and SEP were included) for:
- Gannet (displacement)
 - Herring gull (collision)
- 16.14 Transboundary ornithological matters raised by Rijkswaterstaat were explored during the Examination [ER 18.5.87]. The Applicant's cumulative impact assessment for offshore ornithology refers to seasonal biologically defined minimum population sizes for UK waters which include migratory populations of birds from outside UK waters.
- 16.15 The ExA was satisfied that the Applicant's assessment of potential effects on ornithological receptors outside of the UK as a result of the Proposed Development is adequate and that the initial concerns expressed by Rijkswaterstaat were satisfactorily addressed [ER 18.6.1].

Conclusions

- 16.16 The Secretary of State notes that the ExA was content that the provisions of NPS EN-1 (particularly section 5.3) and NPS EN-3 (particularly paragraphs 2.6.58-2.6.71, 2.6.101 and 2.6.108-109) had been satisfied and that all relevant legislative and policy tests for this topic had been met [ER 18.6.1].
- 16.17 In considering the weight that should be afforded to the significant adverse effects identified above, the ExA considered the precautionary nature of the cumulative impact assumptions; the uncertainties in data for projects that had not been submitted by the end of the Examination; and NPS EN-1 which states that:
- "the benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests". (Para. 5.3.6)*
- 16.18 Overall, the ExA concluded that the effects on offshore ornithology were a medium negative consideration in the overall planning balance. The Secretary of State agrees with the ExA's conclusions on this matter.

17 Habitats Regulations Assessment

- 17.1 In the UK, the Habitats Regulations apply as far as the 12 nautical miles ("nm") limit of territorial waters. Beyond territorial waters, the Offshore Habitats Regulations serve the same function for the UK's offshore marine area. Following the UK's departure from the European Union, these domestic regulations continue to apply. The Secretary of State notes the Application covers areas within and outside the 12nm limit, so both sets of Regulations apply and hereafter will be referred to collectively as 'the Habitats Regulations'.
- 17.2 The Habitats Regulations provide for the designation of sites for the protection of habitats and species of international importance. These sites are called Special Areas of Conservation ("SACs"). The Regulations also provide for the classification of sites for the protection of rare and vulnerable birds and for regularly occurring migratory species within

the UK and internationally. These sites are called Special Protection Areas ("SPAs"). SACs and SPAs together form part of the UK's National Site Network.

- 17.3 The Convention on Wetlands of International Importance 1972 ("the Ramsar Convention") provides for the listing of wetlands of international importance. These sites are called Ramsar sites. Government policy is to afford Ramsar sites in the United Kingdom the same protection as sites within the National Site Network (collectively referred to here as "protected sites").
- 17.4 In the UK, the Conservation of Habitats and Species Regulations 2017 and the Wildlife and Countryside Act 1981 transposed the Habitats and Birds Directives into national law as far as the 12nm limit of territorial waters. Beyond territorial waters, the Conservation of Offshore Marine Habitats and Species Regulations 2017 serve the same function for the UK's offshore marine area. Following the UK's departure from the European Union, these domestic regulations continue to apply. The Secretary of State notes the Application covers areas within and outside the 12nm limit, so both sets of Regulations apply.
- 17.5 Regulation 63 of the Conservation of Habitats and Species Regulations 2017 provides that: *"....before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in-combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, [the competent authority] must make an appropriate assessment of the implications for that site in view of that site's conservation objectives."*
- 17.6 And that: *"In the light of the conclusions of the assessment, and subject to regulation 64 (considerations of overriding public interest), the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be)."*
- 17.7 Regulation 28 of the Conservation of Offshore Marine Habitats and Species Regulations 2017 contains similar provisions: *"Before deciding to undertake, or give any consent, permission or other authorisation for, a relevant plan or project, a competent authority must make an appropriate assessment of the implications of the plan or project for the site in view of that site's conservation objectives."*
- 17.8 And that: *"In the light of the conclusions of the assessment, and subject to regulation 29 (considerations of overriding public interest), the competent authority may agree to the plan or project only if it has ascertained that it will not adversely affect the integrity of the European offshore marine site or European site (as the case may be)."*
- 17.9 The Habitats Regulations require that, where the project is likely to have a significant effect ("LSE") on any such site, alone or in-combination with other plans and projects, an appropriate assessment ("AA") is carried out to determine whether the project will have an adverse effect on the integrity of the site in view of that site's Conservation Objectives.
- 17.10 Where an adverse effect on the integrity of the site cannot be ruled out, the Habitats Directive provides a derogation under article 6(4) which allows such plans or projects to be approved provided three tests are met:
- There are no feasible alternative solutions to the plan or project which are less damaging.
 - There are "imperative reasons of overriding public interest" ("IROPI") for the plan or project to proceed.

- Compensatory measures are secured to ensure that the overall coherence of the network of European sites is maintained.

17.11 The above tests, which are also set out in both the Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017, must be interpreted strictly and developments which may result in an adverse effect on the integrity of a European Site can only be authorised once the above tests have been met.

17.12 The complete process of assessment is commonly referred to as a Habitats Regulations Assessment (“HRA”). While noting that it is for the Secretary of State to carry out the HRA, the ExA concluded:

- Adverse effects on the integrity of the breeding lesser black-backed gull feature of the Alde-Ore Estuary SPA/Ramsar site could not be excluded because of the predicted collision related mortalities from the Proposed Development in combination with other offshore wind farms.
- Adverse effects on the integrity of the breeding gannet, kittiwake, razorbill, and guillemot features of the Flamborough and Filey Coast SPA could not be excluded because of the predicted collision and/ or displacement related mortalities from the Proposed Development in combination with other offshore wind farms.
- Adverse effects on the integrity of the non-breeding red-throated diver feature of the Outer Thames Estuary SPA could not be excluded because of the predicted disturbance and displacement effects of the Proposed Development in combination with other offshore wind farms.

17.13 The ExA concluded that the compensation measures proposed for each species and the overall package, including the secondary measures are feasible and appropriate and are adequately secured in the rDCO/DML: however, the ExA recommended that the Secretary of State may wish to seek further information on whether an alternative design could avoid the adverse effects on the lesser black-backed gull feature of Alde-Ore Estuary SPA and the red-throated diver feature of the Outer Thames Estuary SPA.

17.14 The Secretary of State’s HRA is published alongside this letter. The following paragraphs, which summarise the HRA, should be read alongside the HRA which is the full statement of the Secretary of State’s consideration of these matters.

17.15 The Secretary of State has carefully considered the information presented before him and during the examination, including the Report on the Implications for European Sites (“RIES”), the Environmental Statement, representations made by Interested Parties, and the ExA’s Report itself. He considered that the Proposed Development had the potential to have an LSE on 15 National Site Network sites when considered alone and in-combination with other plans or projects. These sites are listed below:

- Alde-Ore Estuary SPA
- Alde-Ore Estuary Ramsar site
- Breydon Water SPA
- Breydon Water Ramsar site
- Broadland SPA
- Broadland Ramsar site
- Flamborough and Filey Coast SPA

- Greater Wash SPA
- Humber Estuary SAC
- North Norfolk Coast SPA
- North Norfolk Coast Ramsar site
- Outer Thames Estuary SPA
- Sandlings SPA
- Southern North Sea SAC
- The Wash and North Norfolk Coast SAC

17.16 The Secretary of State has now undertaken an AA in respect of the conservation objectives of the sites to determine whether the Proposed Development, either alone or in-combination with other plans or projects, will result in an adverse effect on the integrity of the above sites.

17.17 The Secretary of State has considered the available information, including the mitigation measures secured through the Order and Deemed Marine Licences (“DMLs”), and has concluded that the Proposed Development will not have an adverse effect on integrity on the following sites:

- Breydon Water SPA
- Breydon Water Ramsar site
- Broadland SPA
- Broadland Ramsar site
- Greater Wash SPA
- Humber Estuary SAC
- North Norfolk Coast SPA
- North Norfolk Coast Ramsar site
- Sandlings SPA
- Southern North Sea SAC
- The Wash and North Norfolk Coast SAC

Consideration of Further Tests under the Habitats Regulations

17.18 The Secretary of State cannot rule out an adverse effect on integrity beyond reasonable scientific doubt in relation to:

- In-combination impacts on lesser-black backed gull from collision mortality, a qualifying feature of the Alde-Ore Estuary SPA and Ramsar site;
- In-combination impacts on kittiwake from collision mortality, a qualifying feature of the Flamborough and Filey Coast SPA; and
- Alone and in-combination impacts on red-throated diver from displacement/ disturbance, a qualifying feature of the Outer Thames Estuary SPA.

17.19 The Secretary of State has therefore reviewed the Proposed Development in the context of Regulations 64 and 68 of the Conservation of Habitats and Species Regulations and Regulation 28 of the Offshore Habitats Regulations to determine whether it can be consented.

- 17.20 Consent may only be given under Regulation 64 and 28 of the Habitats Regulations where no alternative solutions to the project are available which are less damaging to the affected European site and where Regulation 68 is satisfied.
- 17.21 Regulations 64 and 29 of the Habitats Regulations allow for the consenting of a project even though it would cause an adverse effect on the integrity of a European site (“AEOI”) if it is required for IROPI.
- 17.22 Regulations 68 and 36 of the Habitats Regulations require the appropriate authority to secure any necessary compensatory measures to ensure that the overall coherence of National Site Network is protected.
- 17.23 In accordance with guidance on the application of HRA published by the Planning Inspectorate (Advice Note 10) and DEFRA, the Secretary of State reviewed the Proposed Development following a sequential process, considering:
- Alternative solutions to the Proposed Development that have been sought;
 - Whether there are IROPI for the Proposed Development to proceed; and
 - Compensation measures proposed by the Applicant for ensuring that the overall coherence of the National Site Network is protected have been assessed.

Alternative Solutions

- 17.24 The objectives for the Proposed Development are:
- Reducing greenhouse gas emissions;
 - Increasing energy generation from low carbon sources to replace high carbon energy sources such as coal and gas;
 - Increasing energy security of supply for the UK market, including:
 - Securing safe, affordable, reliable energy, preferably generated in the UK; and
 - Replacing existing ageing energy generation infrastructure;
 - Meeting expected electricity demand whilst meeting climate change commitments;
 - Maximising social and economic opportunities for the UK from energy infrastructure investment (responded to the Clean Growth Strategy (DBEIS 2017) and the UK “Offshore Wind Sector Deal” (DBEIS 2019); and
 - Increasing the UK’s offshore wind capacity to 30GW by 2030.
- 17.25 In accordance with guidance published by DEFRA, the Secretary of State does not consider the development of alternative forms of energy generation to meet the objectives for the Proposed Development. Alternatives to the Proposed Development considered by the Secretary of State are consequently limited to either “Do Nothing” or “alternative wind farm projects”.
- Offshore wind farms not in UK Exclusive Economic Zone (EEZ);
 - Offshore wind farms within UK EEZ, including:
 - Within Scottish Territorial Waters;
 - At other locations available to the Applicant;
 - Within other Zones leased from The Crown Estate by other developers; and
 - Within Zones to be leased by The Crown Estate under the Licensing Round 4.

- 17.26 Natural England's advice was that a minimum of a 10km buffer between the array and the SPA would be required to avoid the displacement effects on red-throated diver. Following a review of the additional information submitted by the Applicant and Natural England, the Secretary of State considers that whilst a larger buffer distance between the Outer Thames Estuary SPA and Proposed Development array would reduce (>8.3km and <10km) or avoid (>10km) the adverse effect on integrity of the SPA from disturbance and displacement effects upon the red-throated diver feature, any increase in distance between the Project array and the SPA would reduce the generation capacity of the Project and would therefore not meet Project objectives and would not satisfy the alternatives test.
- 17.27 The Secretary of State therefore concludes that alternative solutions are not available that would meet Project objectives, and IROPI must be considered.

Imperative Reasons of Overriding Public Interest

- 17.28 A development, having an AEIOI on a European site may proceed (subject to a positive conclusion on alternatives and provision of any necessary compensation) if the project must be carried out for IROPI. The Secretary of State has therefore considered whether the Proposed Development is required for IROPI.
- 17.29 The Secretary of State is satisfied that there are imperative reasons of overriding public interest for the Proposed Development to proceed subject to adequate compensatory measures being implemented.
- 17.30 In arriving at his conclusion, the Secretary of State has reviewed how the Proposed Development provides a public benefit which is essential and urgent despite the adverse effects upon the integrity of three protected sites that will result from the Proposed Development alone and in combination with other operational, consented and planned developments.
- 17.31 The conclusion is predicated by the principal and essential benefit of the Proposed Development as a significant contribution to limiting the extent of climate change in accordance with the objectives of the Paris Agreement. The consequences of not achieving those objectives would be severely deleterious to societies across the globe, including the UK, to human health, to social and economic interests and to the environment.
- 17.32 The need to address climate change is the principal tenet behind the Climate Change Act 2008, and subsequently published NPSs for energy (NPS EN-1), renewable energy infrastructure (NPS EN-3) and electricity networks (NPS EN-5) provide a framework for delivering the UK's international commitments on climate change.
- 17.33 Measures set out in the NPSs have been given further impetus to reflect evolving understanding of the urgency of actions to combat climate change, including the legally binding commitment to reduce greenhouse gas emissions to net zero by 2050, made in July 2019.
- 17.34 The Government's strategy for decarbonisation to achieve this commitment relies on contributions from all sectors delivered through multiple individual projects implemented by the private sector. The Government has also set up schemes to facilitate the deployment of such projects and to provide the public with value for money, such as via the Contracts for Difference scheme.
- 17.35 The Government anticipates that decarbonisation will lead to a substantially increased demand for electricity as other power sources are at least partially phased out or transformed. Simultaneously the supply of electricity must decarbonise. This will require the

establishment of a reliable and secure mix of low-carbon electricity sources, including large-scale development of offshore wind generation.

- 17.36 Offshore wind generation schemes can only be developed through the mechanism put in place by The Crown Estate for leasing areas of the seabed in a structured and timely way. Projects, like the Proposed Development, which make a significant contribution to meeting the target capacity in the timeframe required are therefore both necessary and urgent.

Compensatory Measures

- 17.37 The Applicant submitted an Offshore Ornithology Without Prejudice Compensation Measures report for the National Site Network Sites where adverse effects were predicted i.e., Alde-Ore Estuary SPA and Ramsar, Flamborough and Filey Coast SPA, Outer Thames Estuary SPA.
- 17.38 The Alde-Ore Estuary SPA and Ramsar without prejudice compensation measures propose to enhance the breeding success of lesser black-backed gull within part of the SPA. This would be achieved by enclosing 4 ha of suitable nesting habitat with fencing to exclude mammalian predators. This scale of enclosure could support the 14,000 pairs required to restore the population and over-compensates for the predicted 1.6 birds per year that the Proposed Development is predicted to kill through collisions.
- 17.39 Management and monitoring would include regular checks of the fence integrity, and habitat management to maintain suitable nesting habitat. Furthermore, the breeding population within the enclosure will be monitored. If initial take up of the nesting opportunities is low then adaptive management measures, such as playback of calls and use of decoys may be considered to attract birds to the site.
- 17.40 The Flamborough and Filey Coast SPA without prejudice compensation measures for kittiwake propose the construction of artificial nest sites to increase the productivity of kittiwake in the southern North Sea. The proposed structure could accommodate 100 pairs of kittiwakes, which would provide enough over-compensation to address any uncertainties around this compensation measure for the 0.8 birds that the Proposed Development is predicted to kill through collisions.
- 17.41 The success of the compensation measures would be monitored, and adaptive management measures adopted where required.
- 17.42 The compensation measures for lesser black-backed gull and kittiwake would remain in place and be maintained as fit for purpose until the later of (i) the decommissioning of the windfarm or (ii) a determination by the Secretary of State that the compensation measure is no longer required, following consultation with the relevant statutory nature conservation body.
- 17.43 The Outer Thames Estuary SPA without prejudice compensation measures for red-throated diver propose to reroute vessels to and from East Anglia Three Offshore Wind Farm to reduce disturbance and displacement of red-throated divers within the SPA during the non-breeding season. A secondary compensatory measure proposed to identify suitable shipping areas (or areas from which pleasure craft could be restricted) in areas of otherwise suitable habitat for red-throated divers and agree to reroute these vessels.
- 17.44 Natural England agreed that fencing to exclude mammalian predators was an acceptable measure to compensate for the impacts on lesser black-backed gull.

- 17.45 With regards to the proposed compensation for kittiwakes, Natural England stated that more information was required on the size, location, timing, and design of the compensation measures to provide confidence in their deliverability and efficacy.
- 17.46 With regards to the displacement of red-throated divers in the Outer Thames Estuary SPA, Natural England advised that re-routeing vessels from East Anglia Three OWF would not provide adequate compensation for three reasons: firstly, because periodic disturbance from transiting vessels does not equate to the persistent displacement effect exerted by a windfarm array; secondly, the impacts of the East Anglia Three Offshore Wind Farm, including vessel movements, were not assessed as having an adverse effect on the integrity of the SPA during the determination of that project; and East Anglia Three Offshore Wind Farm vessel movements are already minimised through its Best Practice Protocol.

The Examining Authority's Conclusions

- 17.47 The ExA considered that the potential alternative solutions to delivering the objectives of the Proposed Development and the case for imperative overriding public interest met the requirements of Regulation 29 of the Offshore Habitats Regulations. The ExA also recommended that the compensation measures proposed for each species and the overall package, including the secondary measure related to ornithological by-catch reduction, were feasible and appropriate and were adequately secured in the recommended Order/DML, therefore met the requirement of Regulation 36 of the Offshore Habitats Regulations.

Post-Examination Consultation

- 17.48 During the determination period the Secretary of State's consultation letters invited the Applicant to provide further evidence to support the proposed compensatory measures for the SPAs. In relation to the red-throated diver feature of the Outer Thames Estuary SPA, additional information was sought on the specific areas of the SPA where red-throated divers are known to be displaced by vessel movements and evidence that the Applicant could secure a reduction in vessel movements to reduce the displacement of red-throated divers in these areas.
- 17.49 In response to this request, the Applicant confirmed that restricting vessel movements by unrelated third parties was beyond its control and re-iterated that it could secure a reduction in vessel movements for the East Anglia Three OWF.
- 17.50 The Secretary of State requested that the Applicant in consultation with Natural England to provide an updated project layout that included a sufficient buffer between the array and the SPA boundary to remove displacement impacts on red-throated divers within the SPA. In response to the Secretary of State's request, the Applicant presented an alternative project layout with a 10km buffer. The Applicant also increased the area of compensation available by including the re-routeing of vessels from East Anglia One OWF in addition to re-routeing vessels from East Anglia Three OWF.
- 17.51 Having reviewed the estimates of red-throated diver habitat loss presented by the Applicant for a scheme with a 10km buffer, Natural England maintained that the displacement effects of the Proposed Development would not be removed until the array was at least 10km from the SPA.
- 17.52 The Applicant estimated that a 10km buffer would result in a reduction in installed capacity of 7.8%.

Further Clarifications

- 17.53 In March 2022 the Applicant expanded their commitments to monitoring and modelling the distribution of red-throated diver within the SPA. This included the use of aerial digital surveys of the abundance and distribution of red-throated divers within the SPA and a 10km buffer. The Applicant also committed to extending the period in which it would restrict vessel movements within the SPA to 1 November to 31 March.
- 17.54 The Applicant also committed to creating and hosting a partnership of the relevant parties to identify and implement opportunities for reducing the disturbance effects on red-throated diver at a strategic level.
- 17.55 Natural England stated that 'Natural England concludes that the package of measures provides a reasonable prospect of the coherence of the national site network being maintained'. This advice was provided in the specific scenario of a 8km buffer for the East Anglia ONE North Offshore Wind Farm and a 10km buffer for the Proposed Development (with the implementation of a 10km buffer between the array and the boundary of the SPA there would be no need to secure compensatory measures for the Proposed Development). However, the Applicant clarified that it did not offer a Proposed Development layout with a buffer of 10km and that this was provided only for the purposes of considering the adequacy of compensation.

Conclusions

- 17.56 The Secretary of State is satisfied that the necessary compensatory measures to ensure that the overall coherence of the National Site Network can be secured with regards to The Flamborough and Filey Coast SPA kittiwake feature; and the Alde-Ore Estuary SPA lesser black-backed gull feature.
- 17.57 The Secretary of State notes the advice of Natural England that the updated package of compensation measures provides a reasonable prospect of coherence of the national site network being maintained. The Secretary of State notes that this advice is provided in the specific scenario of a reduction in the impacts of the Proposed Development to 10km, i.e. an avoidance of impacts, and a reduction in the impacts of the East Anglia ONE North Offshore I via an 8km buffer and should not be taken as Natural England's advice on other permutations. However, he considers that, given the compensation ratio of 9:1 the shared package of compensatory measures would adequately compensate for adverse effects on the red-throated diver feature of the SPA at a distance of 8.3km between the Proposed Development and the Outer Thames Estuary SPA, and that no buffer is required for the Proposed Development.

18 Marine Mammals

- 18.1 The ExA notes [ER 19.2.1] that NPS EN-1 sets out that the decision maker should be satisfied that the preferred methods of construction, in particular the construction method needed for the proposed foundations and the preferred foundation type, where known at the time of application, are designed so as to reasonably minimise significant disturbance effects on marine mammals. Unless suitable noise mitigation measures can be imposed by requirements to any development consent the decision maker may refuse the application. The ExA also notes [ER 19.2.2 et seq] the relevant policies within NPS EN-3, the UK Marine Policy Statement and the East Inshore and East Offshore Marine Plans.

The Applicant's Case

- 18.2 The Applicant's assessment [ER 19.3.5] committed to the following mitigations in relation to marine mammals:
- A soft-start and ramp-up protocol that is secured in the draft Marine Mammal Mitigation Protocol;
 - A Marine Mammal Mitigation Protocol for piling;
 - A Marine Mammal Mitigation Protocol for unexploded ordnance ("UXO") clearance; and
 - Site Integrity Plans ("SIPs") in relation to the SNS SAC for both piling and UXO clearance.
- 18.3 The Applicant's assessment concluded [ER 19.3.8 et seq.] that the residual impacts from the Proposed Development during the construction phase were either negligible or minor adverse. For the operation stage [ER 19.3.9] the residual impacts were predicted to be negligible except for the following impacts which were predicted to be minor adverse:
- permanent threshold shift and temporary threshold shift from cumulative sound exposure level for all three species due to underwater noise from operational wind turbines;
 - disturbance to harbour porpoise, grey seal and harbour seal due to behavioural change resulting from underwater noise from maintenance activities; and
 - displacement of harbour porpoise from changes to prey resource during operation.
- 18.4 The Applicant stated that the residual impacts during decommissioning would be the same or less than those assessed for the construction phase.
- 18.5 The Applicant predicted [ER 19.3.11] cumulative residual impacts would be minor adverse for harbour porpoise, grey seal, and harbour seal due to the low density of these species in the development area, and its commitment to implement mitigation measures.

Planning Issues

- 18.6 A subject of discussion in the examination [ER 19.5.9] was the inclusion of UXO clearance activities within the draft Deemed Marine Licences rather than being controlled by separate marine licences. The Marine Management Organisation ("MMO") maintained that this would be best controlled through separate licences although agreed appropriate drafting. The ExA was satisfied that the relevant provisions of the draft Deemed Marine Licences would allow for an up-to-date assessment of effects and secured the necessary controls and noise mitigation measures to ensure that the effects of UXO clearance on marine mammals are minimised.
- 18.7 During the examination, The Wildlife Trusts stated [ER 19.4.8] that commercial fishing should be included as a project in the cumulative assessments, rather than being treated as a part of the baseline for the marine mammal assessment. The ExA stated [ER 19.5.23] that it did not seem logical or necessary to assess the continuation of existing fishing activity as a cumulative project, if it has been considered in the baseline, unless the evidence indicated that there was the realistic prospect the effects of fishing would increase.
- 18.8 Whale and Dolphin Conservation suggested [ER 19.4.11] that foundations requiring piling should not be used due to the disturbance and displacement effects on harbour porpoise; that further assessment of the effects of alternative foundations on marine mammals and prey species should be undertaken; and effective noise-reducing measures should be applied where any piles are driven. The ExA was satisfied [ER 19.5.15] that the Applicant had assessed the realistic worst-case scenario in terms of the foundation types and accepts

that the Applicant cannot determine whether 'pile-less' foundations would be feasible until the detailed design stage.

- 18.9 Mechanisms for the control of underwater noise [ER 19.4.19], including the content of draft mitigation plans and the wording of Deemed Marine Licence conditions required to secure marine mammal mitigation, were key themes throughout the examination.
- 18.10 The means for securing the implementation of marine mammal mitigation measures were also discussed during the examination: by its close, the draft Deemed Marine Licence provisions [ER 19.4.23] to secure the implementation of the marine mammal mitigation measures were agreed by Natural England and the MMO. However, agreement from The Wildlife Trusts was not confirmed.
- 18.11 A further theme of the examination related to the monitoring of effects on marine mammals [ER 19.4.24 et seq.]. The Applicant's principles for monitoring effects on marine mammals was presented in the Offshore In-Principle Monitoring Plan, which was updated during the examination in response to discussions with Interested Parties.
- 18.12 Overall, the ExA was satisfied [ER 19.5.33] that the package of mitigation measures in the ES and the Offshore Schedule of Mitigation for the potential effects on harbour porpoise, grey seal and harbour seal will be implemented through the draft Marine Mammal Management Plan and In-Principle Site Integrity Plan. The ExA was also content that the draft Deemed Marine Licence conditions serve to secure these commitments.
- 18.13 Furthermore, the ExA considered [ER 19.5.39 et seq.] that the Applicant has committed to monitor one of the first four piles at a location expected to generate the greatest underwater noise emissions, and that this together with the use of Passive Acoustic Monitoring devices to monitor potential behavioural impacts, represented a proportionate approach to monitoring the effects on marine mammals for the Proposed Development both alone and cumulatively.

Conclusions

- 18.14 The ExA concluded [ER 19.6] that the residual effects of disturbance from underwater construction noise on harbour porpoise, grey seal and harbour seal would be minor adverse. There was also the potential for permanent threshold shift and temporary threshold shift from cumulative sound exposure level for all three species due to underwater noise effects in the operation stage.
- 18.15 With regards to cumulative effects, the ExA found potential for minor adverse residual effects on harbour porpoise, grey seal and harbour seal during the construction and operation stages due to underwater noise from piling and other noise sources; changes to prey resources; and vessel interaction (collision risk).
- 18.16 The ExA was content that the provisions of NPS EN-3 had been satisfied, and that all relevant legislative and policy tests for this topic had been met.
- 18.17 Overall, the ExA concluded that the effects on marine mammals were a low negative consideration in the overall planning balance. The Secretary of State agrees with the ExA's conclusions on this matter.

19 Other Offshore Biodiversity Effects

Benthic Ecology

- 19.1 The Applicant reported that two potential Annex I habitats were identified within the offshore development area: *Sabellaria spinulosa* (“Sabellaria”) reef and vegetated shingle. The Applicant predicted a range of impacts on benthic ecology during construction, operation and decommissioning in the ES. No residual impacts were predicted to be greater than minor adverse. The Applicant committed to employ mitigation and best practice measures including avoiding designated sites where possible, micro-siting where possible to avoid Sabellaria reef, avoiding cable crossings where possible, using HDD techniques from the intertidal zone to the subtidal zone, minimising scour protection, burying cables wherever possible and not disposing of sediment within 50 m of known areas of Sabellaria reef [ER 20.3.5 et seq].
- 19.2 Throughout the examination, Natural England raised several issues regarding benthic ecology [ER 20.4.1]. Natural England’s concerns included how a second Annex I reef survey report would be secured if required, how the reef buffer could be secured on a case-by-case basis, and the issue of geotechnical investigations to inform a cable burial assessment and the degree to which cable protection would be required. In response to written questions by the ExA, Natural England stated that it was content with the current controls in the DMLs regarding Sabellaria reef and considered that further controls on cable installations in mixed sediment were not required. Natural England also agreed to the In-Principle Monitoring Plan with regard to benthic ecology monitoring. The MMO stated that it considered the Sabellaria Reef Management Plan was appropriate to avoid negative impacts on Sabellaria reef [ER 20.4.2 et seq].
- 19.3 The Eastern Inshore Fisheries and Conservation Authority (“EIFCA”) raised concerns regarding the scale of activities in the Southern North Sea. It did not agree with the Applicant’s conclusions of the assessment of cumulative impacts [ER 20.4.8]. The ExA considered that the matters raised by EIFCA would not fall within the geographical scope of cumulative impact considerations for the Proposed Development, and noted that Natural England and the MMO did not raise significant concerns regarding the assessment and management of cumulative impacts in relation to benthic ecology [ER 20.5.7].
- 19.4 At the close of examination, all matters were agreed between the Applicant and Natural England and the MMO respectively, with the exception of the mitigation in relation to Sabellaria reef and whether any new cable and scour protection should fall within the ambit of the DML marine licensing regime [ER 20.5.1].
- 19.5 The ExA was content that the management plan process set out in the Outline Sabellaria Reef Management Plan provided appropriate steps and actions for its implementation and would provide a robust process to identify and safeguard areas of Sabellaria reef [ER 20.5.2 et seq].
- 19.6 The MMO considered that the need for the installation of any new cable and scour protection should be a marine licensing matter. The ExA noted that Condition 24 of Schedule 13 and Condition 20 of Schedule 14 require that information regarding any new locations for scour protection and cable protection would need to be agreed by the MMO in consultation with the statutory nature conservation body. This must be submitted at least four months before the intended installation of such protection. The ExA considered this to be a sufficiently robust assessment and authorisation process and consequently disagreed with the MMO’s argument that this should be a matter for a separate marine licence [ER 20.5.5].

19.7 Overall, the ExA was content that the potential impacts of the Proposed Development alone and cumulatively on benthic ecology have been adequately addressed and that appropriate mitigation is secured in the draft Order [ER 20.5.8].

Fish and Shellfish Ecology

19.8 Pre-application consultation regarding fish and shellfish ecology was undertaken as part of the Expert Topic Groups, comprising the MMO, Natural England and Cefas. The Applicant committed to embedded mitigation, including: burying export cables where possible to reduce the effects of EMFs and reduce the need for surface cable protection; employing overnight working during construction; no simultaneous UXO detonations; and no concurrent piling or UXO detonation with the East Anglia ONE North project [ER 20.3.10 et seq].

19.9 The predicted residual impacts for fish and shellfish ecology for the construction and operation stages were negligible, minor adverse, or minor beneficial due to changes in fishing activity. The impacts from the decommissioning stage were considered to be no worse than the construction stage. Residual cumulative impacts were predicted to be minor adverse [ER 20.3.12 et seq].

19.10 During examination, Natural England stated that the cable corridor for the Proposed Development was to be sited in a high intensity nursery ground for herring. Natural England queried whether the Applicant could cite any more recent evidence regarding herring tolerance to suspended sediment concentrations, and whether there was any further site-specific information regarding the risk to sand eels including through noise impacts [ER 20.4.9].

19.11 EIFCA highlighted the potential for impacts on a range of species including tope shark and thornback ray that utilise the Outer Thames Estuary SPA, and North Sea nursery grounds for species such as herring, cod and mackerel and spawning grounds for sole and sand eels. They also raised concerns about the potential impacts of EMFs on marine fauna, and the scale of offshore development in the Southern North Sea [ER 20.4.10 et seq.]. The potential impact on fish species, predominantly herring spawning was an enduring theme in the examination. Conflicting views were raised about how restrictions on piling and UXO detonation during the herring spawning season could be secured in the Order to give sufficient certainty but also flexibility to account for yearly variations in the occurrence of herring spawning [ER 20.4.13 et seq].

19.12 The Applicant submitted a Fish and Shellfish Clarification Note in response to Relevant Representations made by Natural England, MMO and EIFCA, with updated survey data on herring larvae, noise modelling and assessed the impact of increased suspended sediment concentrations on whelk and King scallop [ER 20.4.12].

19.13 The MMO raised concerns regarding Condition 29 of Schedule 13 and Condition 25 of Schedule 14 which related to restrictions on piling and UXO detonation during the herring spawning season of “approximately 14 days”. In the final draft Order, the Applicant submitted revised wording to overcome the MMOs concerns [ER 20.4.14 et seq].

19.14 By the close of the examination, all the matters raised regarding fish and shellfish ecology had been agreed between the Applicant and the MMO, EIFCA and Natural England, respectively. The ExA notes the documents that are secured in Schedule 17 of the draft Order include the Offshore In-Principle Monitoring Plan, that is secured in Condition 17 of Schedule 13 and Condition 13 of Schedule 14. Additionally, Condition 29 of Schedule 13 and Condition 25 of Schedule 14 of the draft Order contain the agreed wording for

restrictions on piling and UXO detonation during the herring spawning season [ER 20.5.9 et seq].

- 19.15 Apart from the East Anglia ONE North project, there are no other direct impact pathways identified in relation to other plans and projects. The ExA notes that the conclusions of the assessment of cumulative impacts on fish and shellfish ecology have been agreed by Natural England and the MMO, and the ExA concurs with this assessment [ER 20.5.11 et seq].
- 19.16 The ExA was content that mitigation was adequately secured in the draft Order and agrees that the impacts on fish and shellfish ecology from the Proposed Development alone and cumulatively would be minor adverse, with residual impacts being minor adverse, negligible, or slightly beneficial [ER 20.5.10 et seq]. The Secretary of State agrees with this assessment.

Marine Designated Sites and Other Offshore Biodiversity Matters

- 19.17 The Applicant reported that the Proposed Development does not overlap with any internationally, nationally, or locally important sites designated for benthic ecology receptors. The offshore cable corridor for East Anglia Two would be 2.1 km from the Orford Inshore Marine Conservation Zone ("MCZ"), but the Applicant predicted there would be no potential for the Proposed Development to impact on the site's designated features of subtidal mixed sand and gravels. The Landfall overlaps with the Leiston – Aldeburgh SSSI, and areas of sandbank that are supporting features of the Outer Thames Estuary SPA are present inshore of the offshore cable corridor [ER 20.3.14 et seq]. Impacts on the SSSI and SPA are considered in chapters 10 & 24 respectively of the decision letter.
- 19.18 No issues were raised during examination by any IPs including Natural England regarding the impact of the Proposed Development on marine designated sites [ER 20.4.20].
- 19.19 The ExA stated that, due to the separation distances and the nature of the Proposed Development, it concurs with the Applicant's assessment that the Proposed Development either alone or cumulatively would have a neutral impact on marine designated sites [ER 20.5.13]. No other significant issues regarding any other offshore biodiversity impacts have been raised, beyond those discussed in this and other sections of the decision letter [ER 20.5.14].

The Examining Authority's Conclusions

- 19.20 Overall, the ExA concluded that other offshore biodiversity effects of the Proposed Development alone and cumulatively would be negative in weight and of low significance, and that the Proposed Development complies with all relevant policy and legislation tests [ER 20.6.1]. The Secretary of State agrees with the ExA's conclusion on Other Offshore Biodiversity Effects.

20 Marine Physical Effects and Water Quality

- 20.1 The ExA notes that NPS EN-1 sets out that an applicant should assess the existing status and potential impacts of its project on water quality, water resources and physical characteristics of the water environment and that the decision-maker should give those effects more weight if they would have adverse effects on the achievement of objectives under the Water Framework Directive. NPS EN-3 sets out that an applicant should assess the effects of marine development in terms of water quality, waves, tides scour, sediment transport and suspended solids.

- 20.2 The Applicant's assessment of the Proposed Development's potential impact on marine geology, oceanography and physical processes, concluded that, after mitigation, there would be no significant effects during the construction, operation or decommissioning phases [ER 21.3.2–21.3.4]. The assessment also concluded there would be no cumulative effects and no potential for transboundary effects was identified [ER 21.3.5 et seq].
- 20.3 The Applicant's assessment of the Proposed Development's potential impact on marine water and sediment quality, concluded that, after mitigation, all assessed effects would be either minor adverse or negligible.
- 20.4 In the final SoCG with the MMO, all matters regarding marine geology, oceanography and physical processes and marine water and sediment quality were agreed. In the final SoCG with Natural England, all matters regarding marine geology oceanography and physical processes were agreed. As such, the ExA concluded [ER 21.6.1]:
- “The effects of the Proposed Development in terms of marine geology, oceanography and physical processes are broadly negligible and relevant policy is met.*
- The effects of the Proposed Development in terms of marine water and sediment quality effects are broadly minor adverse and relevant policy is met.*
- This means that a low negative weighting for this matter should be carried forward into the overall planning balance.”*
- 20.5 The Secretary of State agrees with the ExA's conclusion on Marine Physical Effects and Water Quality.

21 Offshore Historic Environment

- 21.1 NPS EN-1 requires an applicant to provide a description of the significance of the heritage assets affected by the Proposed Development and the contribution of their setting to that significance. EN-1 also notes that the Secretary of State should consider requirements to ensure appropriate procedures are in place for identification and treatment where there is a high possibility of undiscovered heritage assets. EN-3 sets out that offshore heritage assets can be affected by the physical siting of the Proposed Development and by indirect changes to the physical marine environment. EN-3 emphasises consultation at an early stage and the identification of any beneficial effects on the historic marine environment. The ExA noted the relevant aspects of the NPPF, the UK Marine Policy Statement and the East Inshore and East Offshore Marine Plans. [ER 22.2.1 et seq.]
- 21.2 The Applicant carried out consultation through various groups and reports: no public feedback specific to marine archaeology and cultural heritage was raised during this process [ER 22.3.4].
- 21.3 There are no known seabed prehistory sites in the study area, but there is the potential for previously undiscovered prehistoric sites [ER 22.3.6]. There are several recorded wrecks and obstructions but no known aircraft crash sites, and no sites subject to statutory protection [ER 22.3.7]. Within the windfarm site 262 anomalies were found during survey work: five were wrecks, four of which had been previously charted [ER 22.3.8]. Within the cable corridor 841 anomalies were found: eight were wrecks, all of which were previously charted [ER 22.3.8]. The wrecks are considered to be of regional importance due to their association with the World Wars and the East Coast Channels and are regarded as heritage assets of

medium importance [ER 22.3.9]. There is a high potential for World War II defence remains within the intertidal area around Thorpeness beach [ER 22.3.8].

- 21.4 Archaeology Exclusion Zones (“AEZs”) using buffers of 50 m around the wreck extent and 15m around wreck debris are proposed for the anomaly/wreck sites within the windfarm. AEZs are proposed for 17 ‘A1’ sites in the cable corridor, whereas ‘A2’ sites (smaller areas of debris and disturbance) will not have AEZs, but will be avoided by micro-siting where possible. All known assets in the intertidal zone will be avoided by the use of horizontal directional drilling. [ER 22.3.10]
- 21.5 Total loss of as yet undiscovered heritage assets has been assumed as a precautionary approach for the assessment. Additional mitigation methods will be agreed in consultation with Historic England in accordance with industry standards and guidance and confirmed in the Offshore Written Scheme of Investigation [ER 22.3.11].
- 21.6 Potential indirect impacts to heritage assets from changes to physical processes were assessed to have no impact [ER 22.3.12].
- 21.7 Impacts on the setting of heritage assets and the historic sea character are assessed as temporary. The potential for drilling fluid breakout to adversely affect heritage assets is assessed as negligible due to the use of a Marine Pollution Contingency Plan. [ER 22.3.13]
- 21.8 The AEZs would be retained throughout the project lifespan and there would be no impact during operation. Maintenance activities could have an impact on potential heritage assets, but with mitigation this would be reduced to minor adverse harm [ER 22.3.14].
- 21.9 A minor adverse effect is predicted due to scouring, from the possibility of foundations in the seabed leading to flow acceleration. The effect on the setting of the heritage assets and the historic seascape character is considered to be minor adverse. [ER 22.3.15 et seq.]
- 21.10 Decommissioning activities are predicted to result in a minor adverse effect on direct impact to potential heritage assets for similar reasons as the construction and operation phases [ER 22.3.17].
- 21.11 A minor adverse cumulative effect is predicted to occur between East Anglia ONE North, East Anglia TWO and East Anglia THREE as a result of possible impacts on undiscovered heritage assets [ER 22.3.18]. Adverse effects on former submerged landscapes or maritime and aviation resources are considered to be outweighed by the acquisition and archaeological assessment of geophysical and geotechnical survey data contributing significantly to a greater understanding of the offshore historic environment [ER 22.3.19]. Cumulative impacts to the setting of heritage assets and historic seascape character are described as potentially a significant cumulative change due to the possible altering of perception of the historic seascape character to be associated primarily with offshore renewables [ER 22.3.20]. Whilst the historic seascape character is considered to have a high capacity to accommodate change, cumulative change will occur as a result of multiple projects: the ES considers that whether this is positive or negative is subjective and dependant on the view of individuals [ER 22.3.21]. The ExA noted this point, but concluded that this change would cause minor adverse harm [ER 22.5.12].
- 21.12 The ExA notes offshore heritage was not a contentious issue during the examination and was almost solely raised by Historic England [ER 22.4.1]. The Applicant committed to further archaeological assessments, stating that a final WSI would be submitted to Historic England at least six months before the start of licensed activities and the MMO at least four months before [ER 22.4.6]. A post-consent design plan would detail any AEZs and micro-siting requirements, and Historic England would be consulted on the scope of all further surveys

[ER 22.4.6]. A revised Written Scheme of Investigation was submitted at deadline 3 and Historic England confirmed that this updated version had captured their concerns, and that the Applicant had committed to alter Schedule 14, Part 2, Condition 13(1)(g) of the draft Order [ER 22.4.9].

- 21.13 The final SoCG between Historic England and the Applicant confirmed that all EIA, draft Development Consent Order, and Written Statement of Investigation (“WSI”) matters were agreed between the parties [ER 22.4.10].

Conclusions

- 21.14 The ExA considered that all direct impacts to known heritage assets would be avoided and there would be no impact during construction, operation or decommissioning [ER 22.5.3 and 22.5.7]. The ExA accepted that undiscovered heritage assets could not be avoided during construction, maintenance, or decommissioning, but that the Applicant’s precautionary approach and the mitigation proposed reduced harm to minor adverse [ER 22.5.4 and 22.5.8]. The ExA considered that potential indirect impacts from changes to physical processes is likely to have no impact [ER 22.5.5]. The ExA considered that the effects on setting of heritage assets due to construction and the potential for drilling fluid breakout to adversely affect heritage assets was negligible due to the mitigation agreed [ER 22.5.6]. The setting of marine heritage assets would be minor due to the large scale of the historic seascape character and its capacity to accept change [ER 22.5.9].
- 21.15 The ExA considered that the large-scale archaeological assessment of geophysical and geotechnical survey data cumulative, along with the scientific and educational opportunities both in the UK and with European partners has the potential to have a minor beneficial effect [ER 22.5.11].
- 21.16 The ExA considered that the Applicant had adequately provided the required information and that the Proposed Development complies in this respect with NPSs EN-1, EN3, and policy SOC2 of the East Inshore and East Offshore Marine Plans. The ExA was satisfied that the proposed mitigation and the provisions of the offshore Written Scheme of Investigation would ensure that the Proposed Development will not cause harm to known heritage assets throughout the lifetime of the Proposed Development. [ER 22.6.2] The ExA concluded that the cumulative harm to unknown heritage assets and the historic seascape character would not be outweighed by the positive effects of the expansion of marine archaeological knowledge and that a low negative weighting is to be carried forward in the planning balance [ER 22.6.3].
- 21.17 The Secretary of State agrees with the ExA’s conclusion on Offshore Historic Environment.

22 Offshore Socio-economic and Other Effects

Fishing

- 22.1 NPS EN-3 sets out that an applicant should engage with statutory advisors and representatives of the fishing industry, and notes that the Secretary of State should be satisfied that the site selection has reasonably minimised adverse effects on fish stocks and that consultation should consider co-existence due to the possibility of safety zones limiting fishing access. Reasonable mitigation derived from the consultation should seek to enhance (where possible) medium to long term benefits to the sector whilst alleviating any construction and operational disruption. [ER 23.2.1 et seq.]

22.2 Policy FISH1 of the East Inshore and East Offshore Marine Plans seeks to avoid development that prevents fishing activity or access to fishing grounds, but that where this is not possible, to mitigate or minimise adverse effects. Policy FISH2 seeks to avoid development affecting fish spawning grounds, nursery areas and associated habitat. [ER 23.2.3 et seq].

22.3 The Applicant prepared Statements of Common Ground with:

- Eastern Inshore Fisheries and Conservation Authority - with all matters agreed to be closed or agreed (pending relevant Natural England advice, but with a reservation on cumulative effects);
- National Federation of Fishing Organisations and the Dutch Fishing Federation: VisNEd - with general agreement but with reservations on survey methodology, on the minimum spacing of wind turbines, on the willingness of individual vessel masters to resume fishing within wind farm array areas and on cumulative effects; and
- Commercial Fisheries Working Group - with general agreement, but minor reservations on the use of an additional offshore fisheries liaison officer where possible, and on the need for close monitoring of potential cable exposures [ER 23.2.6].

22.4 The Applicant's assessment concluded that, after mitigation, all adverse effects on fishing during the construction, operation or decommissioning phases would be either minor adverse or negligible [ER 23.2.8 et seq]. Cumulative effects were found to be negligible or minor adverse for construction, operation or decommissioning with the exception of a moderate adverse effect for Dutch and UK Beam Trawlers and Dutch Seine Netters [ER 23.2.12].

22.5 The ExA notes [ER 23.2.15 et seq] that the issue of fishing and fisheries impacts was not a strongly contentious issue during the examination and was raised largely in writing by technical and sector stakeholders [ER 23.2.16]. The ExA also noted the reservations expressed within the SoCGs with regards to survey methodology and the severity of cumulative effects but noted that no detailed evidence was advanced to rebut the Applicant's assessment and no specific requests were made to provide or secure additional mitigations [ER 23.2.17 et seq.]. The ExA concluded that:

- Herring stocks are adequately safeguarded through the imposition of DML conditions on herring spawning;
- Conditions limiting piling and UXO detonations also secure the interests of the fishing sector and protect fish stocks; and
- On balance the Proposed Development is policy compliant in respect of fishing effects. Significant adverse effects in combination on some Dutch and UK vessels must be noted but all reasonable steps have been taken to control these effects [ER 23.2.22].

Shipping

22.6 NPS EN-3 sets out that an applicant should engage with statutory advisors and representatives of the commercial shipping and recreational boating sectors, and notes that a navigational risk assessment should be undertaken [ER 23.3.1 et seq.]. It notes that the Secretary of State should not grant development consent where interference with the use of recognised sea lanes essential to international navigation is caused [ER 23.3.3]. Wider disruption or economic loss to shipping and navigation sectors should be minimised but consent should not be given to proposals which pose unacceptable navigation risks after mitigation, and the continuity of search and rescue activities and ongoing utilisation of waters

by recreational craft must also be taken into account [ER 23.3.3]. The ExA also notes that the East Inshore and East Offshore Marine Plans presume against the authorisation of proposals for static infrastructure that encroach on important navigation routes and seek to safeguard the current and potential future operation of ports and harbours [ER 23.3.4 et seq].

22.7 The Applicant completed SoCGs with all main matters agreed, with the following bodies:

- the UK Chamber of Shipping; and
- the Marine and Coastguard Agency [ER 23.3.8].

22.8 General descriptions of impacts in terms of duration of construction and the potential effects of installed infrastructure on shipping are broadly equivalent to those for fishing [ER 23.3.9].

22.9 With mitigation, all impacts, including cumulative impacts, were characterised in the range from 'no perceptible effect' via 'broadly acceptable' to 'tolerable and as low as reasonably practicable' ("ALARP"). The highest impact applies to commercial vessel safe navigation in construction and operation. [ER 23.3.10 et seq.]

22.10 The ExA notes that the issue of shipping and navigation was not a contentious issue during the examination and was raised on a limited basis only by technical stakeholders [ER 23.3.18]. The MMO did not raise any issues relating to shipping and navigation and the Maritime and Coastguard Agency had secured agreement with all relevant matters in its Statement of Common Ground [ER 23.3.19]. As with fishing and fisheries, no detailed evidence was advanced to rebut the assessment positions set out in the ES and supporting evidence provided by the Applicant [ER 23.3.20]. Cumulative effects ranged from broadly acceptable to tolerable and as low as reasonably practicable [ER 23.3.23].

22.11 Taking all relevant evidence and policies into account, the ExA concludes that:

- The DMLs secure appropriate navigational markings (aids to navigation) and Trinity House is required to be notified of construction works;
- There are no remaining risks to navigation that have not been mitigated to an appropriate level; and
- On balance, the Proposed Development is policy compliant with respect to its effects on shipping and navigation [ER 23.3.24].

Aviation

22.12 NPS EN-1 sets out that an applicant should provide an assessment of effects on civil and military aviation or other defence interests and consult with the Ministry of Defence ("MoD"), the Civil Aviation Authority ("CAA"), National Air Traffic Services ("NATS") and any aerodrome likely to be affected [ER 23.4.1]. It stipulates that any assessment should include the potential impacts upon the operation of communication, navigation and surveillance infrastructure, flight patterns (both civil and military), other defence assets and aerodrome operational procedures, and that it should assess the cumulative effects with other relevant projects [ER 23.4.2]. It also sets out that the Secretary of State should be satisfied that any effects related to these areas have been addressed and that adverse effects have been minimised and that reasonable mitigation is carried out [ER 23.4.3].

22.13 The Applicant's consultation with civil and military aviation stakeholders identified that the main potential issue was wind turbine interference with Primary Surveillance Radars, and the potential for the turbines to become aviation obstacles or obstructions, particularly to helicopters engaged in offshore operations [ER 23.4.8]. Preliminary analysis showed that

the northern section of the windfarm would be within the Radar Line of Sight for NERL Cromer radar and the MoD's radar at Trimingham [ER 23.4.9 et seq.].

22.14 The Applicant's assessment notes the following potential construction impacts:

- Creation of obstacles – this would be mitigated by notification, marking and lighting, reducing any risk to an acceptable level;
- Radar impact – wind turbines would not be detected by radar until they are operational.
- Impacts caused by helicopters used during construction – as there are no helicopter main routes in the site the impact is considered to be not significant [ER 23.4.13 et seq.].

22.15 The Applicant's assessment notes the following potential operation and decommissioning impacts:

- Creation of obstacles – this would be mitigated by notification, marking and lighting, reducing any risk to an acceptable level; and
- Radar impact – presence of the Proposed Development would lead to impacts on the Radar Line of Sight for Cromer and Trimingham radars. However, the ES states that next generation radars should be able to distinguish between wind turbine and aircraft returns [ER 23.4.16 et seq.].

22.16 Interim mitigation is secured in the Order. With this mitigation the effect is assessed to be not significant [ER 23.4.19]. During the decommissioning phase all impacts are assessed as no change or not significant [ER 23.4.21].

22.17 The Applicant's assessment of cumulative effects considers a range of offshore windfarms and notes that with the use of embedded mitigation the cumulative effects of obstacle creation is considered to be not significant [ER 23.4.23]. Without the proposed mitigation, the cumulative effect of the East Anglia ONE North, East Anglia TWO and East Anglia THREE developments would be major adverse. However, the proposed mitigation measures would reduce this to not significant [ER 23.3.24].

22.18 The ExA notes that the issue of aviation impacts was not a contentious issue during the examination and was an issue that was raised solely by technical stakeholders [ER 23.4.27]. NATS stated that the impact on the Cromer radar was anticipated to be unacceptable, but they were in conversations with the Applicant and while a solution had not been identified they believed one would be forthcoming [ER 23.4.28]. A signed Statement of Common Ground with NATS agreed wording for requirement 35 and NATS withdrew their objection [ER 23.4.29]. The CAA signed a Statement of Common Ground agreeing to aviation lighting in requirement 31 [ER 23.4.30]. The Defence Infrastructure Organisation on behalf of the MoD signed a Statement of Common Ground confirming agreement between the parties for wording and mitigation in requirements 13, 31, and 34 [ER 23.4.31 et seq.].

22.19 The ExA agrees with the Applicant's assessment that construction effects would not be significant due to the proposed mitigation which would reduce the adverse effects to an acceptable level [ER 23.4.35].

Conclusions

22.20 The ExA concludes that:

- The Applicant has adequately provided the required information and the Proposed Development complies in this respect with NPS EN-1;

- Impacts during construction of the proposed wind farm would not be significant;
- With the imposition of agreed Requirements 31, 34 and 35 in the draft Development Consent Order and the mitigation measures included within them, impacts during the operation of the proposed wind farm would not be significant;
- Impacts during the decommissioning of the proposed wind farm would not be significant;
- That with the proposed mitigation, the cumulative effects would not be significant; and
- Overall, with the proposed mitigation, the Proposed Development would not cause harm to aviation safety [ER 23.4.43 et seq].

22.21 Taking the above points on fishing, shipping and navigation and aviation into account, the ExA concluded that with mitigation in place there would be no harm to fishing, there would be at least a reduction of navigational risk to as low as reasonably practicable, and would not harm aviation safety [ER 23.5.1]. The ExA concluded that each of these carried neutral weight, and that overall a neutral weight would be carried forward to the planning balance for offshore socio-economic effects [ER 23.5.1 et seq.].

22.22 The Secretary of State agrees with the ExA's conclusion on Offshore Socio-economic and other effects.

23 Alternatives and Site Selection

23.1 The ExA notes [ER 25.2.1] that there is a general requirement to address alternatives in the EIA process arising from Regulation 14(2)(d) of the 2017 Regulations.

23.2 The ExA also notes [ER 25.2.2] that although NPS EN-1 does not contain a general requirement to consider alternatives or establish whether the Proposed Development represents the best option, it does state that applicants must include information about the main alternatives they have studied and sets out the specific legislation or policy requirements under which alternatives must be considered. These are:

- in specific situations with regards to the Habitats Regulations;
- reasonable alternatives should be considered to avoid significant harm to biodiversity and geological conservation interests;
- in respect of flood risk, a sequential test should be applied as part of site selection
- in respect of Areas of Outstanding Natural Beauty, consideration should be given to the scope for developing outside the designated area

23.3 NPS EN-1 (paragraph 4.4.3) sets out principles which guide decisions about what weight should be given to alternatives. These include:

- the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner;
- alternatives not among the main alternatives studied by the Applicant should only be considered to the extent that they are both important and relevant;
- alternative proposals which are vague or inchoate can be excluded on the grounds that they are not important and relevant.

23.4 The ExA outlines [ER 25.2.5] that it has considered alternatives proposed by persons other than the Applicant but highlights that they have not undergone analysis to an equivalent rigour to those addressed in the application document set, and that once the ExA reached a position *“that the site selection process undertaken by the Applicant is compliant with*

policy and has led to a broadly deliverable Proposed Development, it has followed that less analysed alternatives that are not supported by the Applicant are not matters that the ExA has (by the conclusion of the Reporting period and for recommendation purposes) viewed as being important and relevant.”

- 23.5 With regards to the proposed offshore development, the ExA notes [ER 25.2.7] that the Applicant has adopted the Rochdale Envelope approach, which enables the Applicant to assess a worst-case scenario and amend the development to respond to technological and market changes between initial design and final construction. The ExA sets out the paragraphs within NPS EN-1 and NPS EN-3 which support and guide this approach.
- 23.6 With regards to the proposed transmission system aspects of the development—the National Grid Electricity Transmission substation, the ExA notes [ER 25.2.13 et seq.] the relevant policies within NPS EN-5, notably that the location of sites for transmission infrastructure is market led, subject to the applicant’s assessment of the risk that the Secretary of States may not grant development consent. The ExA notes that *“the burden of site selection and the adoption of site selection criteria falls onto applicants for electricity networks NSIPs.”* The ExA also notes [ER 25.2.15 et seq.]:
- the National Grid Electricity Systems Operator (“NGESO”) Connection and Infrastructure Options Note (“CION”) process and the National Grid’s Guidelines on Substation Siting and Design (the “Horlock Rules”); and
 - the process and duties under the Electricity Act 1989, and the requirement in NPS EN-5 which requires the Applicant to explain how the Electricity Act 1989 duties have been discharged.

The Applicant’s Approach

- 23.7 The following items were considered by the Applicant and the ExA with regards to alternatives and site selection:
- Offshore site selection process;
 - Onshore site selection process;
 - Whether the East Anglia ONE North and East Anglia TWO projects would be built sequentially or simultaneously;
 - Transmission site selection process; and
 - Cable corridor site selection process.

Offshore Site Selection Process

- 23.8 The Applicant outlines the offshore site selection process in Chapter 4 of the ES, in summary the process consisted of:
- 2008 - Initial offshore selection through the Crown Estate;
 - 2008/2009 - Offshore Energy Strategic Environmental Assessment undertaken;
 - 2010 - East Anglia Offshore Wind (“EAOW”) Consortium formed between Scottish Power Renewables and Vattenfall, the East Anglia Zone (Zone 5) was then split into separate windfarm sites.
 - 2014 - EAOW undertook a Zone Appraisal and Planning process and considered a range of technical and environmental constraints. The site boundary for the Proposed Development emerged from this process.

23.9 Following the onshore site selection process (see details below) the broad strategic siting process for the offshore cable corridor and landfall were undertaken [ER 25.3.3] A primary aim of this process was to avoid areas subject to development requirements for Sizewell C.

Onshore Site Selection Process

23.10 The ExA notes [ER 25.3.6] that the main optionality considered in terms of onshore construction was the option to construct East Anglia ONE North and East Anglia TWO sequentially or simultaneously. The sequential construction process was assessed by the Applicant as the worst-case scenario in the context of the Rochdale Envelope approach.

23.11 The ExA notes [ER 25.3.7] that there are provisions in the draft Development Consent Order which:

- Require the installation of cable ducts for East Anglia ONE North and East Anglia TWO to be coordinated to minimise disruption;
- Ensure transmission connection works are not begun speculatively or to benefit developments other than East Anglia ONE North and East Anglia TWO: and
- Connection works cannot commence until the relevant offshore works have commenced; or alternatively, that the Secretary of State is satisfied that the works should commence.

Transmission Site Selection Process

23.12 Within the framework provided by NPS EN-1, NPS EN-5 and the Electricity Act 1989:

- A connection offer to the transmission system is made at a strategic location, following a procedure outlined in the CION process; and
- A specific onshore site is identified using a detailed assessment within the framework set by the Horlock Rules.

23.13 In 2010 the EAOW signed connection agreements with National Grid and several of the windfarms planned for the East Anglia Zone were to be connected at the transmission system at the existing Bramford 400 kV substation near Ipswich. However, when Vattenfall and ScottishPower Renewables split the ownership of EAOW development areas, a review of the existing connection agreements was undertaken in 2017 (“the CION review”). The following four options were considered in the CION review:

- Option 1: connecting to the existing Bramford 400 kV substation;
- Option 2: connecting to existing / extended Sizewell 400 kV substation;
- Option 3: connecting to new Leiston 400 kV substation; or
- Option 4: connecting to existing Norwich Main 400 kV substation.

23.14 The CION review resulted in a connection offer at option 3, which necessitated a new National Grid substation. The Applicant then reviewed 8 zones within the Leiston area using a red, amber, green assessment which considered a range of environmental and technical constraints—Zone 7: Friston and Zone 8: Broom Covert Sizewell emerged from this assessment as the best areas.

- Zone 7: Friston – benefits were: location outside the SCHAONB, availability of a large area of land where all the substation infrastructure could be co-located, screening benefits from existing woodland, and avoidance of possible conflicts with Sizewell C. Disbenefit was the increased distance to the landfall location.

- Zone 8: Broom Covert (Sizewell) – benefits were: shorter distance to landfall, disbenefits were: proximity to SCHAONB, likelihood of Sizewell C objecting to necessary land acquisitions.

Adequacy of Site Selection Process

23.15 Numerous concerns were raised [ER 25.4.5] during the examination about the adequacy of the Site Selection Process, including:

- the extent of the site appraisal process available for the CION review and the landscape character conclusions applied in the assessment;
- that the Applicant and National Grid Electricity Transmission had not given sufficient weight to matters such as adverse effects, avoidance and mitigation with regards to historic assets near Friston, and subsequently, were argued to be in breach of their Electricity Act 1989 duties;
- that the Bramford substation near Ipswich could have offered a viable connection option and its dismissal was insufficiently reasoned; and
- that the Broom Covert site near Sizewell C could have offered a viable connection location and its dismissal was insufficiently reasoned;

23.16 The ExA noted [ER 25.5.11] the *“extent of community concern and disquiet about the general adequacy of the site selection process that led to the selection of the Friston transmission connection location and cable corridors.”* but concluded that *“the legal and policy framework for the consideration of alternatives and site selection summarised in paragraph 25.5.1 of this Report has been met, there is no basis for broader consideration of submissions on this matter”*.

Offshore Ring Main

23.17 SASES [ER 25.4.8] and numerous IPs and post examination submissions received by the Secretary of State suggested that there should be a coordinated offshore extension to the national electricity transmission system, sometimes referred to as an offshore ring main, connecting multiple offshore windfarm arrays via collecting substations on platforms.

23.18 The ExA notes [ER 25.4.9] that this alternative was not considered by the Applicant in the ES. The Applicant took the view that it was entitled to prepare an onshore transmission system connection location and cable alignment that addressed the direction set by the current NPS EN suite policy settings and using the current CION process to site necessary grid infrastructure.

23.19 As the operational policy did not change during the examination, The ExA concluded [ER 25.5.14 et seq.] that: *“The Applicant is not compelled to advance a voluntary ‘pathfinder’ approach to the development of an ORM or equivalent project. It has developed a project-specific solution and secured a grid connection offer. It is entitled to consideration of its individual connection proposal that has been under design development for some time, with the current onshore connection proposals, within the framework provided by current policy.”*

23.20 The Secretary of State can confirm that the operational policy relevant to this matter has not altered during the decision period, and as such, agrees with the above conclusion from the ExA.

Policy Change

23.21 Due to the emergence of the Energy White Paper, the BEIS OTNR and the review of the Energy NPSs which emerged during the examination period, it was argued by SASES and

the Rt Hon Dr Thérèse Coffey MP that a decision should not be taken on an application that responded to onshore design and development drivers from a policy framework that appeared likely to be substantially reformed.

23.22 The ExA notes [ER 25.4.11] that this led to a related concern from SASES that, should the Application be approved, a transmission connection would be developed at Friston which might become a ‘de facto’ connection hub for other use and development, when site selection decision-making had been driven within existing policy settings, by the service of individual project need. This could lead to the establishment of a strategic connection location in a place in which, were it to be considered as such, arguably such a facility should not be developed because its harms would outweigh its benefits.

23.23 However, the ExA states [ER 25.5.4] that at the time of writing, alternative policy approaches arising from the BEIS OTNR do not yet form policy and the Applicant is entitled to consideration under the currently applicable policy framework.

23.24 The ExA considers [ER 25.5.16] that the Energy White Paper is an important and relevant consideration but states that *“its operational implementation is for most relevant purposes delegated to the BEIS OTNR and the review of the EN suite of NPSs”* and notes that neither the OTNR nor the review of NPSs has reached a stage where it would be appropriate to accord any significant weight to them.

A Split Decision

23.25 Due to the evolving policy documents set out in the previous section, IPs (led primarily by SASES and the Rt Hon Dr Thérèse Coffey MP) argued that there should be a ‘split decision’ and consent should be granted to the offshore arrays but that consent should be withheld onshore.

23.26 The ExA concludes [ER 25.5.17]: *“Given the limited remit of this consideration of alternatives and the conclusion that the work carried out by the Applicant has been adequate to legal and policy purpose, there is no basis within the matters considered in this Chapter for a ‘split decision’: a recommendation to grant development consent offshore whilst withholding development consent onshore. This is a matter for conclusion in the planning balance, but cannot arise here in and of itself.”*

23.27 Further details of the Secretary of State’s consideration of a split decision can be found in paragraphs 3.17 -3.19.

The Electricity Act 1989 duties and the CION process

23.28 With regards to the Applicant’s Electricity Act 1989 duties and the CION process for transmission system siting. The ExA notes [ER 25.5.8]:

“NPS EN-5 Section 2.2 is clear that it is not the role of the ExA to second-guess the judgement of an Applicant or NGET in respect of the siting of transmission infrastructure, and that equally, the Applicant or NGET’s siting choices are at their own risk, within the framework provided by NPS EN-1 paragraph 4.4.1.”

and [ER 25.5.10]: *“if the preferred site is capable of recommendation on the balance of applicable law, policy and other important and relevant considerations, then it is sufficient for the ExA to observe that as a matter of fact the CION process was carried out and that options were appraised. Equally in respect of the EA1989 duties, it is sufficient for the ExA to find that all relevant matters were considered by the Applicant during the option appraisal process. The ExA finds accordingly.”*

Conclusions

23.29 Overall, the ExA concluded [ER 25.6.1]:

- The consideration of alternatives forms part of the HRA process in circumstances where an AEoI has been found, where it is necessary to demonstrate that no alternatives exist that would cause lesser harm. The ExA is satisfied that the consideration of alternatives has been sufficient to inform any need to engage the 'no alternatives' test of the Habitats Regulations.
- The consideration of alternatives has been sufficient for EIA purposes and specifically, to enable site avoidance and or mitigation in relation to biodiversity and geological significance.
- The consideration of alternatives in relation to flood risk was sufficient in respect of the policy applicable at all times during the preparation and Examination of the Application. Additional considerations have recently arisen from changes to the NPPF and are addressed in Chapter 6, but broadly the ExA is content that technical means of resolving them within the Order land can be found.
- The consideration of transmission connection location and onshore cable alignment alternatives has contributed towards a reduction of the effect of the proposed development on the AONB (although that has occurred to a substantial extent by moving adverse effects to a location outside the designated area).

23.30 The Secretary of State agrees with the conclusions of the ExA on Alternative and Site Selection. As noted at paragraph 3.24, the Secretary of State does not consider that his decision should be deferred or that the onshore elements should be refused pending the outcome of the OTNR.

24 Good Design

24.1 The ExA notes [ER 26.2.1 et seq.] the policies which cover "good design" in NPS EN-1, NPS EN-3, NPS EN-5 and within the Suffolk Coastal Local Plan Policy. Notably, these include:

NPS EN-1 and NPS EN-3:

- Applying 'good design' to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible;
- NPS EN-1 acknowledges that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area;
- the Secretary of State needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory constraints, are as attractive, durable and adaptive (including taking account of hazards such as natural flooding) as far as possible;
- although the Applicant may not have any or very limited choices in physical appearance of some energy infrastructure, there may be opportunities to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation;
- applicants should be able to demonstrate how the design process was conducted and how the proposed design evolved; and

- NPS EN-3 notes that proposals for renewable energy infrastructure should demonstrate good design in terms of landscape and visual amenity, and in the design of the projects to mitigate impacts such as noise and effects on ecology. NPS EN-5 has a similar policy with regards to overhead lines.

Suffolk Coastal Local Plan

- states that the Council will take into consideration the nature, scale, extent and potential impact of proposals for major energy infrastructure projects, including cumulative effects, throughout their lifetime; and
- seeks to encourage high-quality design that responds to local character and that development is designed appropriately responding to local context.

24.2 Throughout the examination [ER 26.3.1 et seq.] the ExA asked various questions of the Applicant regarding good design, including questions on how the provisions of NPS EN-1 were met for all areas of the Proposed Development.

Planning Issues

24.3 The ESC and SCC LIR noted [ER 26.3.3 et seq.] that one of the main concerns of the local community was the design of the substations and whether adherence to the Outline Onshore Substation Design Principles Statement [ExA Ref: APP-585] would deliver a development of acceptable standards. They also wanted to ensure that all reasonable endeavours had been made to reduce the size and scale of the substation. The LIR also raised the following issues:

- The Outline Onshore Substation Design Principles Statement (“SDPS”) did not cover the National Grid substation (also raised by SASES);
- That insufficient information had been submitted to allow an adequate assessment of the design;
- There was not a clear commitment in the outline design principles to reducing the overall size and height of the substations;
- The Councils requested a more detailed outline of the engagement proposed; and
- There was not adequate consideration of the potential for future development.

24.4 The key issues raised during the examination were:

- ESC suggested a commitment to installing the cable ducting for East Anglia ONE North & East Anglia TWO simultaneously to reduce impacts during the construction phase;
- Disappointment from stakeholders at the level of engagement from National Grid;
- The proposed substation area was substantially greater than the benchmark for similar substations documented by National Grid Electricity System Operator (“NGESO”) and the substations for Hornsea 1 and Rampion;
- Insufficient commitment to reducing the parameters of the substation post-consent;
- SCC requested an additional design principle be included to reflect the need for the design to have regard to policy changes and technological advancements;
- SASES submitted a comprehensive document which considered:
 - (i) There should be an independent power engineering review of the Proposed Development;
 - (ii) the footprint and height of the substation was excessive and did not compare favourably with substations constructed for other schemes;

(iii) The SDPS did not go far enough and a range of visualisations beyond the substation colour images should be produced for the community.

- 24.5 During the examination, the Applicant committed to installing the cable ducts simultaneously and stated that they had been able to reduce the overall footprint of the substation and retain existing woodland near the site. They also increased the minimum air-draught height and reduced the total height of the turbines which reduced the seabird collision risk and visual effects on the SCHAONB.
- 24.6 ESC welcomed the commitment regarding the cable route ducting and commitment to reduce the footprint of the substation and the commitment to reduce the height of the substation buildings. SASES considered that the proposal to reduce the footprint by 10% would have no effect on the impacts on landscape or heritage.
- 24.7 The Applicant considered that Hornsea could not be used for a meaningful comparison due to it being a final as built solution and being designed differently, and stated that rectangular substations are the standard approach, and one which leads to space efficiencies. The Applicant stated that the power engineering review suggested by SASES would be inappropriate—the ExA agreed with this position [ER 26.4.30].
- 24.8 The Applicant also considered that the additional design principle recommended by SCC would not be appropriate, considering that many of the design criteria for the substation layout are relatively rigid, in order to comply with safety, maintainability and quality of supply obligations.

GIS / AIS Substation

- 24.9 During the examination [ER 26.3.31] the Applicant presented an alternative design and accompanying photomontages for the substation which incorporated Gas Insulated Switchgear (“GIS”) rather than Air Insulated Switchgear (“AIS”). This design had the benefit of being smaller than the original design. The initial photomontages were considered to be insufficient to allow a comparison of the two substations and, subsequently, the ExA issued a Rule 17 request for further information on the overall design and layout of the substations including the AIS and GIS options. Subsequently, the Applicant submitted a Landscape and Visual Impacts Assessment and a Heritage Assessment Addendum and accompanying photomontages. The assessment concluded [ER 26.3.37] that although there were clear differences between the AIS and GIS options, there was no material difference in the assessed levels effect from the GIS option or the AIS option during construction or operation. The ExA considered [ER 26.4.22] that the GIS substation would have the least visual impact but noted the concerns raised by the Right Honourable Dr Thérèse Coffey MP over the potential climate change impact of the gases used to insulate the switchgear equipment. National Grid Electricity Transmission also stated [ER 26.4.31] that due to their commitment to reduce greenhouse gases, and to work within the parameters of the Electricity Act 1989 to keep costs to a minimum for the consumer, that it was highly unlikely that the GIS option would be chosen

Design Evolution and Process

- 24.10 Design elements of the Proposed Development which evolved:
- Commitment to install the ducting for both projects in parallel, if both are consented;
 - Reduction in the total footprint of the substation site;
 - Revising siting of the substation to retain an area of woodland;

- Reduction in substation height, limiting the maximum height of substation buildings to 14m and reduction in height of other elements.
- Reduction of cable route working area to the east of Aldeburgh Road and for the crossing of the Hundred River;
- Reductions/ revisions to the working area of the Hundred River Crossing and landfall area;
- A change to the foundation type for the offshore platforms;
- Reduction in height of the offshore wind turbines;
- Lower lighting intensity of night-time lighting;
- Additional planting to screen the NG substation to the south of Little Moor Farm;
- A Substations Design Principles Statement was submitted at Deadline 4 [ER 26.3.25] which contained: proposed design parameters, design principles, and a draft engagement strategy; and
- A commitment in a revised OLEMS for the Applicant to prepare an onshore preparation works management plan.

24.11 ESC considered that the SDPS addressed their request for a commitment to making every effort to reduce the size and scale of the substations during the post consent design refinement work and that Requirement 12 of the draft Order was satisfactory.

24.12 The ExA considered [ER 26.4.11] that the lack of a specific good design chapter from the ES was an omission. However, the ExA considered that the changes to commitments and documentation made by the Applicant during the examination demonstrated the evolution of the design of the Proposed Development.

24.13 The ExA generally accepted [ER 26.4.14] that differing options had been considered and demonstrated by the Applicant during the design process for the Proposed Development and noted that the design principles contained within the SDPS seek to ensure that, moving forward, the visual impact of the Proposed Development is reduced and that a design review is undertaken.

Sustainable Infrastructure, Sensitivity to Place, and Good Aesthetics

Offshore

24.14 The design of the proposed turbines offshore has been altered during the application process to reduce the height of the proposed turbines, from 300 m to 282 m [ER 26.4.16]. This has reduced visual impact upon the seascape and landscape, as well as on visual receptors. The change to the lighting of the proposed turbines to minimise visual impact of the windfarm at night will also reduce landscape harm and visual impacts.

- Increase to the minimum draft height would reduce the impact of the Proposed Development on cumulative and in-combination effects on seabirds

Landfall and Cable Route

24.15 The ExA considers [ER 26.4.20] that the choice of technology for landfall (HDD) and the burying of the cable route in general demonstrate good design. The ExA also notes [ER 26.4.21] that the cable corridor route was designed to minimise overlap with designated sites and that it crosses the SPA at the narrowest point.

Substation Site

- 24.16 The ExA [ER 26.4.22] agrees that the GIS substation would have the least visual impact but notes the climate change concerns associated with the gas used in this type of substation. Overall, it considered that although the selected substation site avoided designated sites, that it would still have a significant impact on the landscape.
- 24.17 The ExA notes [ER 26.4.24] that the design of the substation was refined during the examination reducing the total footprint and maximum height of the substation buildings. However, the ExA considered that although such measures assisted with the achievement of good design, other options such as separating the East Anglia ONE North and East Anglia TWO substations or alternative shapes for the substation layout were not always explored.
- 24.18 The ExA accepted [ER 26.4.26] that the OLEMS evolved throughout the examination and became a more detailed and useful document, but notes that although the additional planting proposed would provide benefits to visual receptors, that the change to openness of the landscape would have a consequential adverse effect.
- 24.19 The ExA considered [ER 26.4.26 et seq.] that the SDPS, the updated OLEMS and Requirement 12 of the draft Order would provide a reasonable foundation for design matters.
- 24.20 During the decision period by the Secretary of State, the approach to managing surface water during the construction of the Proposed Development evolved. This issue is covered in paragraph 4.3.1 et seq of this document.

The Examining Authority's Conclusion

- 24.21 The ExA considers [ER 26.5.1] that the absence of a specific ES design chapter was a significant omission but that the document updates during the examination have provided the necessary design details.

Offshore

- 24.22 The ExA concludes [ER 26.5.1] that good design has been demonstrated in respect of landscape and visual amenity and offshore design parameters to increase the minimum draught height.

Landfall and Cable Route

- 24.23 The ExA concludes that good design has been demonstrated in respect of landscape and visual amenity and onshore ecology due to the reduced working widths in sensitive areas.

Substations

- 24.24 The ExA considered that good progress on the design of the proposed substation took place via the updates to measures and key documents during the examination but noted that not all options were explored and believed that the SDPS could have been improved by incorporating the suggestions from SCC.
- 24.25 The ExA considered that although the design of the National Grid substation did not progress during the examination, the incorporation of the National Grid substation and the SECs in the SDPS and OLEMS would ensure that design matters would progress post-consent. The ExA also considers that flood risk would be adequately mitigated by a SuDS scheme during the operational phase.
- 24.26 The ExA notes *“the acknowledgement in NPS EN-1 that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the*

enhancement of the quality of the area. Given this the ExA consider that the Proposed Development would be as attractive, durable and adaptable as it can be.”

24.27 Overall, the ExA concludes [ER 26.5.2] that more options could have been considered for the substation design and the lack of changes or alterations to the proposed National Grid substation and SECs during the examination is to be regretted. However, given post consent provisions secured within Requirement 12 of the draft Order, the Proposed Development would be as attractive, durable and adaptable as it can be and complies with paragraph 4.53 of NPS EN-1 and *“The Proposed Development complies with NPS EN-1 but the reservations above mean that a low negative weighting is to be carried forward in the planning balance. However, it is acknowledged that the design process going forward contained within the dDCO [draft Order] and the SDPS has the ability to create a good design outcome.”*

24.28 The Secretary of State agrees with the ExA’s conclusion on Good Design.

25 Other Overarching Matters

Transboundary Considerations

25.1 Transboundary screening and consultation were undertaken pursuant to under Regulation 32 of the 2017 Regulations. Three transboundary screenings were carried out by the Planning Inspectorate on behalf of the Secretary of State and recorded in a single transboundary screening document [ExA REF: OD-001]. The ExA concluded that that the Proposed Development is not likely to have a significant effect on the environment in an EEA State and that there were no outstanding transboundary matters for consideration. The Secretary of State sees no reason to disagree with the ExA on this matter.

Equality Act 2010

25.2 The Equality Act 2010 includes a public sector equality duty (“PSED”). This requires a public authority, in the exercise of its functions, to have due regard to the need to (a) eliminate discrimination, harassment and victimisation and any other conduct prohibited by or under that Act or; (b) advance equality of opportunity between persons who share a relevant protected characteristic (age; gender reassignment; disability; marriage and civil partnerships²⁷; pregnancy and maternity; religion or belief; sex, sexual orientation and race) and persons who do not share it; and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

25.3 In considering this matter, the Secretary of State (as decision-maker) must pay due regard to the aims of the PSED. This must include consideration of all potential equality impacts highlighted during the Examination. There can be detriment to affected parties but, if there is, it must be acknowledged and the impacts on equality must be considered.

25.4 The ExA states [ER 27.3.11] *“The ExA is satisfied that ample opportunity has been provided in the Examination for oral or written representations to be made by any Interested Party (IP) wishing to do so, and has given particular consideration to submissions from Tessa Wojtczak and from the Applicant, including its Public Sector Equality Statement. The ExA is satisfied with the Applicant’s assessment and responses.”* and concludes that: *“there is no evidence of any differentiated or disproportionate impacts on groups with protected*

²⁷ In respect of the first statutory objective (eliminating unlawful discrimination etc.) only.

characteristics, and that impacts will be of low significance and neutral weight in the planning balance.”

25.5 The Secretary of State is confident that, in taking the recommended decision, he has paid due regard to the above aims when considering the potential impacts of granting or refusing the Application and can conclude that the Proposed Development will not result in any differential impacts on people sharing any of the protected characteristics. The Secretary of State concludes, therefore, that granting the Application is unlikely to result in a substantial impact on equality of opportunity or relations between those who share a protected characteristic and others or unlawfully discriminate against any particular protected characteristics.

Human Rights

25.6 The Secretary of State has considered the potential infringement of human rights raised by the ExA [ER 27.4.1] in relation to the Proposed Development.

25.7 The ExA concludes *“In relation to the balance of effects arising from construction, operation and decommissioning, on the basis of the findings in relation to the planning merits of the Proposed Development in Chapters 5 to 26 of this report the ExA finds that the wider public interest in achieving the substantial and timely renewable energy benefits of the Proposed Development does justify interference with the human rights of any of the owners and residential occupiers affected them.”*

25.8 As such, the Secretary of State has no reason to believe that the grant of the Order would give rise to any unjustified interference with human rights so as to conflict with the provisions of the Human Rights Act 1998.

Natural Environment and Rural Communities Act 2006

25.9 The Secretary of State, in accordance with the duty in section 40(1) of the Natural Environment and Rural Communities Act 2006, has to have regard to the purpose of conserving biodiversity, and in particular to the United Nations Environmental Programme Convention on Biological Diversity of 1992, when granting development consent.

25.10 The Secretary of State is of the view that the ExA’s report, together with the environmental impact analysis, considers biodiversity sufficiently to inform him in this respect. In reaching the decision to give consent to the Proposed Development, the Secretary of State has had due regard to conserving biodiversity.

26 Compulsory Acquisition and Related Matters

26.1 The 2008 Act, together with related case-law and guidance, sets out that compulsory acquisition can only be granted if certain conditions are met, namely:

- the land is required for the development to which the consent relates or is required to facilitate or is incidental to that development. The land taken must be no more than is reasonably required and be proportionate (Section 122(2) of the 2008 Act);
- there must be a compelling case in the public interest (Section 122(3) of the 2008 Act);
- there must be a need for the development to be carried out (Section 122(3) of the 2008 Act);
- there must be consistency and coherence in the decision-making process (Section 122(3) of the 2008 Act);
- all reasonable alternatives to compulsory acquisition have been explored;

- the Applicant has a clear idea of how it intends to use the land and can demonstrate that funds are available to pay for the acquisition; and
- they are satisfied that the purposes stated for the acquisition are legitimate and sufficient to justify the inevitable interference with the human rights of those affected.

26.2 The Applicant seeks powers to compulsorily acquire land and rights over land (including creation of new rights) to support the delivery of the Proposed Development [ER 29.3.2]. The Applicant is seeking to enter private agreements with all landowners and occupiers, but seeks compulsory acquisition and temporary possession powers for the works and operation in the event that this is not possible [ER 29.4.4 and 29.4.9]. By the close of the Examination the Applicant had been unable to acquire all land and rights required by agreement [ER 29.4.12].

26.3 The Applicant made changes to include additional land [ER 29.3.6, 29.5.19 et seq.; 29.5.43]. The ExA was satisfied the legal requirements in relation to this additional land were satisfied and it was appropriate to include this additional land in the draft Order [ER 29.3.14]. A number of additional changes were sought during the course of the Examination, involving modification of existing plots, creation of additional plots, removal of plots and reducing the area of plots [ER 29.4.1]. The ExA considered these changes, and all affected persons and additional affected persons who requested to were heard at either Compulsory Acquisition Hearing 2 or 3, or had already been consulted by the Applicant and had made representations at Deadline 11 [ER 29.5.22 et seq., and 29.5.44 et seq.]. [ER 29.5.22 et seq.; 29.5.44 et seq.]. The changes meant several objections were effectively withdrawn as the relevant interests were removed from the application [ER 29.5.7].

26.4 The Applicant seeks temporary possession of land within the cable corridor for the construction phase, followed by compulsory acquisition once it has determined what land is required permanently for the works and the operation of the Proposed Development [ER 29.4.3 and 28.4.17].

26.5 The standard cable corridor is 70m wide, but at a number of locations a greater width will be required [ER 29.4.18]. The standard working width will be reduced to a maximum of 16.1m at important hedgerows [ER 28.4.19]. Permanent rights will only be required over a width of approximately 20m – the width of the two cable trenches plus room for necessary operational and maintenance works [ER 29.4.20]. The ExA asked the Applicant why it requested a 70m wide cable corridor when only 32m was required [ER 29.5.72]. The Applicant explained that a typical working width of 32m would be needed to ensure thermal independence, room for a haul road, temporary works and public rights of way diversions, sufficient space to store excavated material, and to manage surface water, and it would apply if the project is built sequentially or at the same time as the East Anglia ONE North project. If only one project went ahead reducing the Order Limits could lead to sub-optimal land use and limit micro-siting options and the ability to minimise environmental impacts. Land would be taken on a temporary basis and compulsory acquisition powers would only be exercised when it was determined what land is required permanently – typically 20m for each project. The ExA was satisfied with this approach, that compulsory acquisition powers would only be exercised over the land actually required permanently, and that the test in section 122(2)(a) of the Planning Act 2008 is satisfied in this respect. [ER 29.5.153 et seq.]

26.6 The ExA asked the Applicant to explain why it was not considered necessary to include powers within both Orders to allow one project to lay ducting for both projects. The Applicant explained it had made a commitment in the draft Order that should both projects be constructed sequentially the first project would install the ducting for the second along the

whole of the onshore cable route at the same time, and the Applicant did not consider it necessary to include powers in each Order to allow each project to lay ducting for the other, as the projects are subject to separate applications. [ER 29.5.40].

- 26.7 The Applicant seeks to vary the statutory time period for the use of compulsory acquisition powers from five to seven years [ER 29.2.11]. The Applicant justified this on the basis that uncertainties relating to Contract for Difference rounds meant that a realistic timetable would be based on allocation round 5 rather than the forthcoming allocation round 4, and that the intention to initially take temporary possession and then seek permanent rights based on the final location of the infrastructure supported a seven year period whilst not contradicting the pressing need argument for additional renewable energy infrastructure [ER 29.5.53 et seq.]. The ExA was satisfied with the Applicant's proposed approach and concluded that the seven year period in Article 19 was satisfactory [ER 29.5.161]. On 9 February 2022 the Secretary of State announced that CfD rounds will be in future be conducted on an annual basis²⁸. The Secretary of State has considered the Applicant's position in light of this request and concludes that despite the change to the timing of future CfD round it is appropriate to grant a seven year period, in particular noting the Applicant's intended approach to minimising the amount of land that will be compulsorily acquired.
- 26.8 The ExA considered that the provisions in Article 26 (temporary use of land) are adequate [ER 29.5.55].
- 26.9 The offshore land plan contains two options, and the ExA asked which would be taken forward: the Applicant argued that flexibility was needed as the final site layout had not yet been determined [ER 29.5.42]. The ExA was satisfied of the Applicant's need to retain these alternative corridors and concluded that these should remain within the Order [ER 29.5.143].
- 26.10 National Grid Electricity Transmission plc ("NGET") confirmed that it requires freehold title at its connection substation and sealing end compounds, including for drainage and access, permanent rights and easements of the overhead line works and underground cables, and for access to all operational assets, along with temporary possession powers and construction of all NGET temporary and permanent works and maintenance of all assets, and it anticipates the Applicant using its compulsory acquisition powers under the Order and subsequently transferring the necessary temporary possession powers, land and rights to NGET [ER 29.5.56]. The substation was associated development and did not meet the criteria in the Planning Act 2008 to be treated as a separate NSIP [ER 29.5.57]. NGET acknowledged that other projects may connect into its substation, but those projects would be subject to separate DCO approvals to acquire the necessary land, that it was public knowledge that National Grid Ventures ("NGV") is proposing two separate interconnector projects, Nautilus and Eurolink, but NGET was not aware whether NGV had taken any final decisions on these projects [ER 29.5.59]. The ExA recognised the weight of arguments against the removal of permitted development rights on operational land associated with the substations site, but recommended a change to the draft Order to apply conditions to elements of permitted development [ER 29.5.65]. The ExA concluded that the case is made out for the application of conditions to govern the exercise of certain Permitted Development Rights in relation to the NGET substation, which seek approval of an amended operational drainage management plan for substantial permitted development works [ER 29.5.152].
- 26.11 The ExA asked the Applicant about possible alternative sites raised in representations. The Applicant considered Bramford was unsuitable due to constraints of overhead lines,

28 <https://www.gov.uk/government/news/government-hits-accelerator-on-low-cost-renewable-power>

other undertakers' apparatus, areas required for planting for the East Anglia ONE and East Anglia THREE projects, the need for compulsory acquisition, pinch points along the route passing through three designated sites and the cost of the longer route using AC technology, and that the solution proposed by SASES would not work as the limit (1320MW) was insufficient for both projects; Bradwell would require extension of an overhead line with consequent environmental, timetabling and consenting challenges; Old Leiston airfield and Harrow Lane, Theberton have problems associated with the proximity of nearby residential property, caravan park, Leiston Abbey and Theberton village, the openness of the landscape and views and the absence of screening [ER 29.5.66]. The ExA was satisfied that these were not viable alternative sites [ER 29.5.148].

- 26.12 The ExA investigated the possibility of an alternative grid connection at Broom Covert which was initially suggested by NNB Generation (SZC) Company Limited, but which subsequently stated the land is being used for translocation of reptiles from the construction of the Sizewell C power station and was unavailable [ER 29.5.67 et seq.]. Following queries from the ExA at Compulsory Acquisition Hearing 3 the Applicant explained that in July 2017 EDF Energy had advised that this land, or any land associated with the development of Sizewell C, was not available as it was allocated for ecological compensation and mitigation for reptiles, and the Applicant was satisfied that as EDF was a statutory undertaker, coupled with the importance of the land to Sizewell C and EDF's need to protect the safety and security of Sizewell B power station meant the land was not available; it had also considered the matter following requests from ESC and SCC and concluded that the policy and consenting challenges outweighed the increased cost of further cabling to Grove Wood. The ExA was satisfied with the Applicant's response and concluded that compulsory acquisition of the land to the west was necessary and proportionate [ER 29.5.70 et seq.]. The ExA concluded Broom Covert was not a viable alternative [ER 29.5.148].
- 26.13 The ExA was satisfied that changes made to the alignment of the cable route at the Wardens Trust represented a reasonable balance between impacts on the Sandlings Special Protection Area and the residential property at and around Ness House [ER 29.5.124]. The ExA considered that this late change was reasonable and did not amount to over-acquisition compared with the pre-application alignment [ER 29.5.159].
- 26.14 The ExA considered concerns in relation to Works accesses at Aldringham and considered there was a justifiable need for all the land requested and that the land and rights required were necessary and proportionate [ER 29.5.74 et seq.]. In relation to works at Marlesford the ExA noted the rights sought were only temporary, and would not need to be exercised until relatively late in the construction period when the substation transformers were being delivered and commissioned. The ExA was satisfied of the need to include the land, subject to proper communications with those affected, and consequently concluded it was both necessary and proportionate to include the land in the Order. [ER 29.5.76] In both instances the ExA was satisfied with the Applicant's explanation that it has to demonstrate to Ofgem throughout development, design and construction that the costs incurred, including land costs, are economic and efficient [ER 29.5.77].

Crown Land and Rights

- 26.15 The Applicant confirmed The Crown Estate does not own or have any interests in any land within the onshore Order limits [ER 29.5.90]. Agreements for Lease have been entered into with The Crown Estate for both the windfarm site (dated 15 February 2016) and the offshore substation site and offshore export cable corridor (dated 1 March 2019) [ER 29.5.90].

26.16 The Crown Estate confirmed that its Commissioners consented to the acquisition of rights of Crown land offshore, subject to specified wording being included in the Order [ER 29.4.29]. The ExA noted that this wording was not reflected in the final version of the Applicant's preferred Order [ER 29.4.30] and consequently concluded that it should be included in the recommended Order [ER 29.5.140].

Statutory Undertakers and Protective Provisions

26.17 The land of statutory undertakers subject to an unwithdrawn representation may only be acquired if it can be purchased without serious detriment to the carrying on of the undertaking or can be replaced by other land belonging to, or available for acquisition by, the undertakers without serious detriment to the carrying on of the undertaking or any detriment can be made good by the undertakers by the use of other land belonging to them or available for acquisition by them (section 127 of the 2008 Act).

26.18 Representations were received from NGET, Network Rail Infrastructure Limited ("Network Rail"), Anglian Water Services Ltd, Cadent Gas Limited and Eastern Power Networks plc (represented by UK Power Networks (Operations) Limited [ER 29.4.32].

26.19 The ExA noted that a number of statutory undertakers made no formal representations, or limited or no responses to the Applicant [ER 29.4.38 et seq.].

26.20 In relation to the Sizewell nuclear power stations the Nuclear Decommissioning Authority informed the ExA there were no remaining matters that were not covered by a Statement of Common Ground concluded between it, Magnox Ltd and the Applicants on 31 March 2021 that are relevant to the decommissioning of Sizewell A that should be considered by the Secretary of State [ER 29.4.44]. Satisfactory protective provisions were agreed with EDF Energy Nuclear Generation Limited (Sizewell B) and its representation was withdrawn [ER 29.4.42]. At the end of the examination EDF (NNB Generation Company Limited) was confident that the protective provisions would adequately protect Sizewell C and it no longer had an objection to either scheme [ER 29.4.43].

26.21 ESC and SCC considered the measures in the outline Code of Construction Practice were satisfactory and therefore no protective provisions were required in respect of highway works or interactions [ER 29.4.45].

26.22 At the close of the examination there were no representations from statutory undertakers outstanding and not withdrawn, and the ExA was satisfied with the outcome of the Applicant's negotiations with statutory undertakers [ER 29.4.46; 29.5.89].

Special Category Land

26.23 The Secretary of State notes that no National Trust land or public open space or new rights over such land are sought [ER 29.4.48].

Funding

26.24 The Application is accompanied by a funding statement and a signed funding agreement, and the documents were updated several times during the Examination [ER 29.4.49]. The ExA noted that although the balance sheet of the accounts supplied by the Applicant appear to suggest there are sufficient funds to meet contingent liability the Applicant does not appear to state explicitly that adequate funding would be available for compulsory acquisition within the statutory time period [ER 29.4.55; 29.4.58]. The ExA investigated this issue in its written questions and at Compulsory Acquisition Hearing 1 and 82 [ER 29.5.16; 29.5.83]. By the close of the examination there was a signed funding agreement between

the Applicant and its parent ScottishPower Renewables (UK) Limited, and the ExA concluded there is a reasonable prospect of the requisite funds for acquisition becoming available within the necessary timescale to meet all financial liabilities arising from the exercise of the compulsory acquisition and temporary possession powers sought [ER 29.5.85; 29.6].

Outstanding Objections from Affected Parties

- 26.25 Most outstanding objections related to rights of access and to the siting of the substation and grid connection works at Friston. The ExA has considered topics not directly relevant to the objector's interest in land in the relevant chapters of its Report [ER 29.5.10]. In total there were 39 outstanding objections [ER 29.5.11]. The parties and their concerns are set out in detail in the ExA's Report [ER 29.5.11] and are not repeated here. The Secretary of State notes that in each case, after considering the objections raised by each Affected Person, the ExA concluded that the compulsory acquisition tests were met in respect of the interests of all Affected Persons that were being sought [ER 29.5.11]. The ExA detailed the issues raised by affected parties at the Compulsory Acquisition Hearings and carried unresolved issues forward as matters outstanding at the end of the examination [ER 29.5.97 et seq.].
- 26.26 The Secretary of State notes that a number of these objections raised issues in relation to the arguments for a "split" decision, and/or concerns in relation to the Nautilus and Eurolink Interconnector Projects [ER 29.5.11]. The ExA considered the Order should not contain falling away provisions supporting a "split" decision [ER 29.5.160]. The Secretary of State's consideration of this issue can be found in paragraphs 3.17 - 3.19.
- 26.27 At the end of the examination there were outstanding matters in relation to several objectors. The ExA was satisfied the rights sought over Michael Mahony's land were both necessary and proportionate, and the tests in section 122 of the Planning Act 2008 were satisfied [ER 29.5.167]. The ExA concluded that insofar as they relate to compulsory acquisition and temporary possession the issues raised in relation to Mrs Elspeth Gimson's land are capable of being addressed satisfactorily within the provisions in the draft Order [ER 29.5.168]. The ExA was satisfied the revision to the cable alignment achieves a reasonable balance in respect of the proximity to the Sandlings SPA and the Wardens Trust site, that concerns about the water supply are capable of satisfactory resolution, and that cumulative impacts have been adequately assessed: in respect of the cable route the tests in the Planning Act 2008 are satisfied [ER 29.5.169]. In relation to Tessa Wojtczak the ExA was satisfied the issues in relation to compulsory acquisition are capable of satisfactory resolution through the provisions in the draft Order [ER 29.5.170].

Category 3 Parties

- 26.28 These are parties who have no legal interest in the land but may be entitled to compensation if they are affected by the construction or use of the Proposed Development [ER 29.5.50].
- 26.29 The ExA considered representations from parties concerned that their properties were not included in the Book of Reference: After careful consideration the ExA was satisfied with the Applicant's reasons for not including them [ER 29.5.114 et seq.]. These parties were concerned about the interference from the construction works: the Applicant explained that due to the limited duration of the works it considered a claim for injurious affection was unlikely unless the interference was more than it is reasonable to expect a landowner to suffer [ER 29.5.141]. The Applicant explained that additional construction phase controls would be put in place through the updated Outline Code of Construction Practice and the

Project Update Note in respect of sequential construction. After considering the various submissions the ExA concluded these parties need not be included in the Book of Reference. [ER 29.5.142]. The Secretary of State agrees with the ExA.

The Use of Non-Disclosure Agreements

- 26.30 This issue has been cited by the ExA in the objection of Dr Alexander Gimson and Tessa Wojtczak, but the ExA provides no further detail in its Report [ER 29.5.11].
- 26.31 A submission was made to the Secretary of State by SEAS on 30 November 2021 setting out detailed concerns²⁹. The Applicant responded to these concerns on 31 January 2022 as part of its response to the Secretary of State's second round of post-examination consultation³⁰.
- 26.32 In brief, concerns were raised that parties entering into an agreement with Scottish Power Renewables for the voluntary acquisition of land or rights in it were being required to sign Non-Disclosure Agreements that prevented these parties from participating in the examination and that consequently the ExA was not getting a clear picture of the strength of objection to the two Proposed Developments.
- 26.33 The Secretary of State has considered the representations of both SEAS and the Applicant carefully due to the important issues that they raise about the conduct of the Examination and the rights of all affected parties to have a fair hearing. Having also reviewed the totality of the ExA's Report the Secretary of State considers that all relevant issues were raised and explored in the Examination and that he has the necessary information to enable him to make a decision.

Public Sector Equality Duty

- 26.34 The ExA considered the Applicant's Public Sector Equality Statement, submitted at Deadline 4 instead of Deadline 3 as originally stated (four weeks late) [ER 29.5.93]. The ExA considered the Statement and concluded that the ability of other parties to comment on it had not been significantly hindered by its late submission [ER 29.5.93]. At Compulsory Acquisition Hearings 2 and 3 the ExA heard representations from affected parties in relation to the PSED issues [ER 29.5.96]. The ExA considered adequate opportunity was provided for representations to be made, there was no evidence of any differentiated or disproportionate impacts on groups with protected characteristics, and that the Public Sector Equality Statement would assist the Secretary of State in discharging his duty under the Equality Act 2010 [ER 29.6]. The Secretary of State sees no reason to disagree with the ExA's conclusion on this point.

Human Rights considerations

- 26.35 The ExA considered human rights throughout the examination, and considered those affected have had various opportunities to make representations and to be heard, including at Open Floor Hearings and Compulsory Acquisition Hearings. The ExA was satisfied there

²⁹ https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-007542-SEAS_SoS_NDAAPP_30Nov2021.pdf

³⁰ [https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-009649-ExA_AS-1_SoS_Q2_V1%20EA1N&EA2%20Applicants'%20Responses%20to%20the%20SoS'%20Questions%20of%2020.12.2021%20\(Ite m%203\).pdf](https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010077/EN010077-009649-ExA_AS-1_SoS_Q2_V1%20EA1N&EA2%20Applicants'%20Responses%20to%20the%20SoS'%20Questions%20of%2020.12.2021%20(Ite m%203).pdf)

had been no interference with the right to a fair and public hearing (Article 6 of the European Convention on Human Rights). [ER 29.5.125 et seq.]

26.36 The ExA has considered the effects of the project on the living conditions of local residents during construction and operation. It acknowledged there would be impacts but they would be controlled and mitigated through the requirements attached to the draft Order, and the ExA did not consider the residual impacts would amount to interference with the right to respect of private and family life, home and correspondence (Article 8 of the European Convention on Human Rights). [ER 29.5.127 et seq.]

26.37 The ExA considered the Applicant's proposals strike a fair balance between the public benefit and interference with individual rights, that the rights sought are the minimum necessary to facilitate the delivery of this Proposed Development, that those whose land is affected would be entitled to compensation in accordance with the law, and that the Applicant has committed to mitigate the effects of uncertainty through provision of good and timely information through the Stakeholder Communications Plan which will form part of the Code of Construction Practice. The ExA concluded that any infringement would be proportionate and justified in the public interest, the provisions in the draft Order would strike a fair balance between the public interest in the development going ahead and the interference with the rights of those affected, and that any interference would be in accordance with the law. [ER 29.5.130; 29.6]

Overall Conclusion on Compulsory Acquisition

26.38 The ExA considered the Applicants had made out a compelling case in the public interest and relevant regulations and guidance had been followed by the Applicant. The ExA concluded the requirements of section 123(2) of the Planning Act 2008 were satisfied. [ER 29.6]

26.39 The ExA recognised that Applicant's approach to design flexibility could lead to some uncertainty for landowners in respect of the amount of land required and the timing of the exercise of compulsory powers, but concluded that the Stakeholder Communications Plan, part of the Code of Construction Practice, would mitigate the effects of uncertainty. The ExA concluded that the Applicant's case is generally satisfactory and the relevant statutory tests and guidance were met, both in respect of the original application and the changes to it. [ER 29.6]

26.40 The Applicant is seeking to acquire the necessary land and interests by agreement where possible. The ExA concluded that acquisition of the powers sought would be proportionate and justified by the public interest of the Proposed Development, and the public benefit from it would outweigh the private loss. [ER 29.6]

26.41 By the close of the examination, the ExA was satisfied there is a reasonable prospect of the requisite funds for acquisition becoming available within the necessary timescale to meet all financial liabilities arising from the exercise of the compulsory acquisition and temporary possession [ER 29.6].

26.42 The Secretary of State considers that relevant legislation and guidance relating to compulsory acquisition and temporary possession have been followed by the Applicant and that, given his overall consideration that developed consent for the Proposed Development should be granted, there is a compelling case in the public interest to grant compulsory acquisition and temporary possession powers to facilitate the Proposed Development. The Secretary of State agrees with the ExA's conclusions on funding.

27 The Secretary of State's Consideration of the Planning Balance

- 27.1 The ExA considered all the merits and disbenefits of the Proposed Development and concluded that in the planning balance, the case for development consent has been made and that the benefits of the Proposed Development would outweigh its adverse effects [ER 28.4.4]. The ExA judged that the benefits of the Proposed Development at the national scale, providing highly significant additional renewable energy generation capacity in scalar terms and in a timely manner to meet the need for such development (as identified in NPS EN-1), are sufficient to outweigh the negative impacts that have been identified in relation to the construction and operation of the Proposed Development at the local scale. In reaching this conclusion, the ExA had regard to the effect of the Proposed Development cumulatively with the East Anglia ONE North development and with such other relevant policies and proposals as might affect its development, operation or decommissioning and in respect of which there is information in the public domain. The Secretary of State agrees with the ExA's overall conclusion on the case for development.
- 27.2 Because of the existence of three relevant NPSs, NPS EN-1, NPS EN-3, and NPS EN-5, the Secretary of State is required to determine this application against section 104 of the Planning Act 2008. Section 104(2) requires the Secretary of State to have regard to:
- any local impact report (within the meaning given by section 60(3)),
 - any matters prescribed in relation to development of the description to which the application relates, and
 - any other matters which the Secretary of State thinks are both important and relevant to the decision.
- 27.3 The Secretary of State acknowledges and adopts the substantial weight the ExA gives to the contribution to meeting the need for electricity generation demonstrated by NPS EN-1 and its significant contribution towards satisfying the need for offshore wind [ER 28.4.4]. He further notes that the ExA has identified that the Proposed Development would be consistent with the Climate Change Act 2008 (2050 Target Amendment) Order 2019 which amended the Climate Change Act 2008 to set a legally binding target of 100% below the 1990 baseline. The Secretary of State notes that the designated energy NPSs continue to form the basis for decision-making under the Planning Act 2008. The Secretary of State considers, therefore, that the ongoing need for the Proposed Development is established as it is in line with the national need for offshore wind as part of the transition to a low carbon economy, and that granting the Order would be compatible with the amendment to the Climate Change Act 2008.
- 27.4 After reviewing the ExA Report, the Secretary of State has reached the following conclusions on the weight of other individual topics to be taken forward into the planning balance: flooding & drainage - high negative weighting; landscapes & visual amenity - medium negative weighting; onshore historic environment - medium negative weighting; seascapes - neutral weighting; onshore ecology - low negative weighting; coastal processes – neutral weighting; onshore water quality & resources; noise and vibration - medium negative weighting; air quality, light pollution, and impacts on human health - low negative weighting; transport & traffic - medium negative weighting; socio economic effects onshore – medium positive weighting; land use effects - medium negative weighting; offshore ornithology - medium negative weighting; marine mammals - low negative weighting; other offshore biodiversity - low negative weighting; marine physical effects & water quality - low negative weighting; offshore historic environment - low negative weighting; offshore socio-economic

& other effects - neutral weighting; good design - low negative weighting; other overarching matters – neutral weighting.

- 27.5 Following his consideration of the various submissions relating to the potential for the OTNR to provide an alternative onshore grid connection for the Proposed Development (see paragraphs 3.13 to 3.19 above), the Secretary of State has decided to accord limited weight to the OTNR against granting the Proposed Development.
- 27.6 The Secretary of State has considered all the merits and disbenefits of the Proposed Development and concluded that, on balance, the benefits of the Proposed Development outweigh its negative impacts.
- 27.7 For the reasons given in this letter, the Secretary of State considers that there is a strong case for granting development consent for the East Anglia TWO Offshore Wind Farm. Given the national need for the development, as set out in the relevant NPSs, the Secretary of State does not believe that this is outweighed by the Proposed Development's potential adverse impacts, as mitigated by the proposed terms of the Order.
- 27.8 The Secretary of State has also considered the proposal supported by multiple interested parties that there should be a split decision or partial consent in respect to proposed onshore and offshore development, but after careful consideration agrees with the ExA's position that the East Anglia ONE North and East Anglia TWO developments are entitled to be evaluated under the policy framework that is in place rather than the prospect of a new one, and that the great weight to be accorded to delivering substantial and timely carbon and climate benefits also weighs in favour of not taking split decisions driven by other elements of further possible policy changes.
- 27.9 The Secretary of State has therefore decided to accept the ExA's recommendation to make the Order granting development consent [ER 28.4.7] to include modifications set out below in section 29 below. In reaching this decision, the Secretary of State confirms regard has been given to the ExA's Report, the joint LIR submitted by East Suffolk Council and Suffolk County Council, the NPSs, and to all other matters which are considered important and relevant to the Secretary of State's decision as required by section 104 of the Planning Act 2008. The Secretary of State confirms for the purposes of regulation 3(2) of the ExA Planning (Environmental Impact Assessment) Regulations 2017 that the environmental information as defined in regulation 2(1) of those Regulations has been taken into consideration.

28 Representations Received After the Close of the Examination

- 28.1 In total, the Secretary of State received 424 items of correspondence after the close of the examination. The Secretary of State has considered the matters raised in the correspondence but does not think they raise any new issues that were not considered by the ExA in its report.
- 28.2 The Secretary of State issued consultation requests for further information on 2 November 2021 and 20 December 2021. The Secretary of State has carefully considered these matters, and where relevant has integrated the information provided within this decision letter. All consultation responses have been published on the East Anglia TWO project page on the Planning Inspectorate's website³¹.

³¹ <https://infrastructure.planninginspectorate.gov.uk/projects/eastern/east-anglia-two-offshore-windfarm/>

29 Modifications to the Order by the Secretary of State

29.1 Following consideration of the draft Order provided by the ExA, the Secretary of State has made the following modifications to the draft Order:

- a. Amendments to Article 26 (temporary use of land for carrying out the authorised project) to make a distinction between the requirements for different types of land at paragraph (3).
- b. The inclusion of provision for service of documents at Article 45.
- c. Inclusion of paragraph 3 in Schedule 8 (Modification of compensation and compulsory purchase enactments for creation of new rights and imposition of new restrictions) to modify section 5A(5A) of the Land Compensation Act 1961.
- d. Removal of the original Parts 2, 3 and 4 of Schedule 18 (Offshore Ornithology Compensation Measures).
- e. Additions to Part 1 of Schedule 18 (Flamborough and Filey Coast Special Protection Area - Kittiwake Compensation Measures) to provide details of specific content required in annual reports to the Secretary of State; to provide that the artificial nesting sites must have been in place for at least four full breeding seasons prior to operation of any turbine; and to provide that the artificial nesting sites shall be maintained beyond the operational lifetime of the authorised development if they are colonised.
- f. Additions to Part 2 of Schedule 18 (Alde-Ore Estuary Special Protection Area: Lesser black-backed gull Compensation Measures) to provide details of specific content required in annual reports of the Secretary of State; to provide that the predator control fencing must have been in place for at least four full breeding seasons prior to operation of any turbine; and to provide that the predator control fencing shall be maintained beyond the operational lifetime of the authorised development if the site is colonised.
- g. Additions to Part 3 of Schedule 18 (Outer Thames Estuary: Red-throated diver Compensation Measures) to provide details of specific content required in annual reports of the Secretary of State; to provide for the convening of a partnership with relevant authorities and user representation to improve understanding of disturbance and displacement effects on red-throated diver within the SPA; and to provide for the compensation plan to include details of the work in respect of ornithological by-catch measures.

29.2 In addition, the Secretary of State has made various changes to the draft Order which do not materially alter its effect, including changes to conform with the current practice for statutory instruments (for example, modernisation of language), changes made in the interests of clarity and consistency, and changes to ensure that the Order has its intended effect.

30 Challenge to Decision

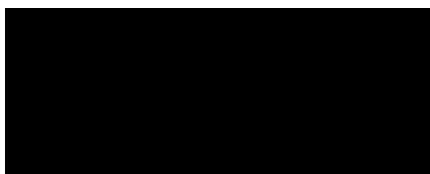
30.1 The circumstances in which the Secretary of State's decision may be challenged are set out in the Annex to this letter.

31 Publicity for Decision

31.1 The Secretary of State's decision on this Application is being publicised as required by section 116 of the 2008 Act and regulation 23 of the ExA Planning (Environmental Impact Assessment) Regulations 2017.

Section 134(6A) of the Planning Act 2008 provides that a compulsory acquisition notice shall be a local land charge. Section 134(6A) also requires the compulsory acquisition notice to be sent to the Chief Land Registrar, and this will be the case where the Order is situated in an area for which the Chief Land Registrar has given notice that they now keep the local land charges register following changes made by Schedule 5 to the Infrastructure Act 2015. However, where land in the Order is situated in an area for which the local authority remains the registering authority for local land charges (because the changes made by the Infrastructure Act 2015 have not yet taken effect), the prospective purchaser should comply with the steps required by section 5 of the Local Land Charges Act 1975 (prior to it being amended by the Infrastructure Act 2015) to ensure that the charge is registered by the local authority.

Yours sincerely



Gareth Leigh

Head of Energy Infrastructure Planning

ANNEX A: LEGAL CHALLENGES RELATING TO APPLICATIONS FOR DEVELOPMENT CONSENT ORDERS

Under section 118 of the Planning Act 2008, an Order granting development consent, or anything done, or omitted to be done, by the Secretary of State in relation to an application for such an Order, can be challenged only by means of a claim for judicial review. A claim for judicial review must be made to the Planning Court during the period of 6 weeks beginning with the day after the day on which the Order is published. The decision documents are being published on the date of this letter on the Planning Inspectorate website at the following address:

<https://infrastructure.planninginspectorate.gov.uk/projects/eastern/east-anglia-two-offshore-windfarm/>

These notes are provided for guidance only. A person who thinks they may have grounds for challenging the decision to make the Order referred to in this letter is advised to seek legal advice before taking any action. If you require advice on the process for making any challenge you should contact the Administrative Court Office at the Royal Courts of Justice, Strand, London, WC2A 2LL (0207 947 6655).