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Your ref: EN010087

10 December 2021

Dear Mr Davey,

PLANNING ACT 2008

PLANNING ACT 2008: APPLICATION FOR DEVELOPMENT CONSENT FOR THE NORFOLK BOREAS 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 12 January 2021 of the Examining Authority (“the ExA”) – a panel comprising five members, Frances Fernandes, Stephen Bradley, Peter Braithwaite, Annie Coombs, and Menaka Sahai - which conducted an Examination into the application (“the Application”) submitted on 11 June 2019 by Norfolk Boreas Limited (“the Applicant”) for a Development Consent Order (“the Order”) under section 37 of the Planning Act 2008 (“the 2008 Act”) for the Norfolk Boreas Offshore Wind Farm (“Norfolk Boreas”) and associated onshore and offshore development (“the Development”).
- 1.2. The Application was accepted for Examination on 4 July 2019. The Examination began on 12 November 2019. Hearings scheduled for 17 and 18 March 2020 and an Accompanied Site Inspection of 19 March 2020 were postponed due to the public health situation surrounding coronavirus (COVID-19). On 6 April 2020 the Planning Inspectorate requested an extension to the Examination period due to the concern that cancelling hearings to reflect Government guidelines might potentially result in Interested Parties not being given a fair opportunity to participate in the Examination, and due to COVID-19 resource prioritisation some Interested Parties no longer had the capacity to participate in the Examination process.

On 11 May 2020 the Secretary of State extended the Examination for no longer than five months from 12 May 2020 to 12 October 2020. The Examination closed on 12 October 2020, and the ExA's Report was submitted to the Secretary of State on 12 January 2021. The Secretary of State set a new decision deadline of 10 December 2021 to allow an opportunity for further information on cumulative impacts of the onshore substation and offshore environmental effects to be provided and considered. A statement confirming the new deadline for the decision was made to the House of Commons and the House of Lords on 12 May 2021¹.

- 1.3. The Order, as applied for, would grant development consent for the construction, operation, and maintenance of an offshore wind generating station with a gross electrical output of up to 1,800 megawatts ("MW"). The Examination considered two potential Scenarios:
 - Scenario 1 – The Norfolk Vanguard Offshore Wind Farm ("Norfolk Vanguard") would be constructed first and would install ducts onshore and other shared works; or
 - Scenario 2 – Norfolk Vanguard would not be built. The Development would proceed alone, undertaking all works to connect to the national electricity transmission grid.
- 1.4. The offshore elements would comprise:
 - An offshore generating station with an electrical export capacity of up to 1,800MW including up to 158 wind turbine generators ("WTGs") each fixed to the seabed, one offshore service platform, up to two meteorological masts, up to two Light Detection and Ranging (LIDAR) measurement buoys and up to two wave measurement buoys;
 - A network of undersea array cables and fibre optic cables between the WTGs; and
 - In Scenario 1 only, a network of subsea cables and fibre optic cables connecting the turbines to an offshore electrical platform within Norfolk Vanguard Offshore Wind Farm East.
 - Associated offshore development would include up to two further electrical platforms, a network of subsea cables and fibre optic cables and up to four subsea export cables and fibre optic cables (Work No. 2, 3A, 4A for both Scenarios), scour protection, cable protection, removal of seabed material and disposal of arisings, cable installation preparation, and excavation of Horizontal Directional Drilling ("HDD") exit pits. Scenario 1 also includes up to three interconnector cables and fibre optic cables (Work No. 3B).
- 1.5. Associated development in the intertidal area would comprise up to four subsea export cables and fibre optic cables between mean low water springs (MLWS) and Mean High Water Springs ("MHWS") at Happisburgh South (Work No. 4B).
- 1.6. Associated onshore development would comprise:
 - Up to two transition jointing pits and up to four cables and fibre optic cables laid in ducts from MHWS (Work No. 4C for both Scenarios);
 - For Scenario 1 - Up to four cables and fibre optic cables pulled through existing ducts (Work No. 5(a), 6(a), 7(a));

¹ <https://questions-statements.parliament.uk/written-statements/detail/2021-05-12/hcws5>

- For Scenario 2 - Up to four cables and fibre optic cables laid in ducts underground (Work No. 5(b), 6(b), 7(b));
- An onshore project substation and associated water management, bunding and landscape works and up to 12 interface cables and fibre optic cables laid underground (Work No. 8A, 8B, 9 for both Scenarios and access connections, Work No. 12A for Scenario 1 and Work No. 12B for Scenario 2);
- National Grid substation extension, surface water management and landscape works (Work No. 10A(a), 10B(a), 10C for Scenario 1 and Work No. 10B(a), 10B(b), 10C for Scenario 2);
- For Scenario 1 - Removal of one pylon and construction of two new pylons and fittings (Work No. 11A);
- For Scenario 2 – Overhead line modifications (Work No. 11B);
- Works associated with construction onshore, associated mitigation measures, habitat creation and archaeological works;
- For Scenario 2 – temporary overhead line diversion local to the Necton National Grid substation.

1.7. The onshore cable route would be 45m wide. In Scenario 1 construction would require cable pulling, accesses, cable logistics area, jointing pits, and link boxes. Scenario 2 would also require cable duct installation, cable duct crossings, trenchless crossings, and mobilisation areas [ER 5.4.9]. At the Necton substation Scenario 1 would require construction of an access road to the substation and the substation itself; Scenario 2 would also require the A47 junction improvement and screening [ER 5.4.10]. The Necton National Grid substation would require an extension to accommodate the connection points for the Development; the direction would be easterly for Scenario 1 and westerly for Scenario 2, with overhead line modifications being required for Scenario 2 only [ER 5.4.11].

1.8. Ancillary works would comprise offshore and onshore temporary works to facilitate construction and/or maintenance of the Development or protect land or structures affected by the Development.

1.9. 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 5-7 of the ExA Report, and the ExA's summary of conclusions and recommendation is at Chapter 10.

2. Summary of the ExA's Report and Recommendation

2.1. 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:

- Traffic and transportation;
- Landscape and visual effects;
- Onshore construction effects;

² <https://infrastructure.planninginspectorate.gov.uk/projects/eastern/norfolk-boreas/>

- Noise and vibration;
- Terrestrial biodiversity, biological environment, and ecology;
- Water resources and flood risk;
- Socio-economic factors;
- Offshore marine biodiversity, biological environment, and ecology;
- Marine and coastal processes;
- Commercial fisheries and fishing;
- Habitats Regulations; and
- Compulsory acquisition.

2.2. The ExA's recommendation in section 10.3 (page 547) is as follows:

“10.3.1. For all the above reasons and in the light of the ExA's findings and conclusions on important and relevant matters set out in this Recommendation Report, the ExA under the Planning Act 2008 (as amended) recommends that the SoS should not make an Order granting development consent for the Norfolk Boreas Offshore Wind Farm.

10.3.2 In the event that the SoS disagrees, the ExA recommends that the SoS makes the Order subject to the modifications summarised in Chapter 9 of this Recommendation Report and set out in Appendix D.

10.3.3 The ExA also draws the SoS's attention to the areas of outstanding concern and matters which the ExA has advised the SoS may wish to pursue as summarised in Chapter 7 of this Recommendation Report. In particular, the SoS should satisfy themselves that compensatory measures identified in Chapter 6 for the features of the Alde-Ore Estuary SPA/Ramsar site, the Flamborough and Filey Coast SPA and the Haisborough, Hammond and Winterton SAC are secured; and residual significant adverse effects at the EIA level remain for:

- a. impact of collision and displacement from the Proposed Development on gannet;*
- b. cumulative collision impact for greater black-backed gull and herring gull; and*
- c. cumulative displacement impact for red-throated diver.*

10.3.4. Furthermore, the SoS should satisfy themselves that the relevant local authorities are sufficiently equipped to enact their prescribed role in relation to the discharge of requirements.

10.3.5. If the SoS is minded to make the Order, in relation to the application for powers of Compulsory Acquisition (CA) within the Order the ExA concludes in Chapter 8 of this Recommendation Report that:

- a. The Applicant has shown that all reasonable alternatives to CA have been explored and that there are no alternatives which ought to be preferred.*
- b. The Applicant has demonstrated that the extent of land over which powers are sought would be no more than is reasonably required and is proportionate to the needs of the Proposed Development.*
- c. the private loss to those affected has been mitigated to a large degree through the use of Temporary Possession to minimise permanent land-take and the extent of the rights and interests proposed to be acquired; and*

d. the proposed interference with the human rights of individuals would be for a legitimate purpose, proportionate and justified in the public interest.

10.3.6. Taking these factors together, and only subject to the Order being made, the SoS can be satisfied that the application would comply with s122(3) of the PA2008, that the powers can be justified, and that they do not represent a disproportionate interference with the human rights of the affected parties. Similarly, the SoS can be satisfied that in respect of statutory undertakers, no element of the powers would substantially interfere with their ability to carry out their statutory duties."

3. Summary of the Secretary of State's Decision

3.1. 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").

4. The Secretary of State's Consideration of the Application

4.1. The Secretary of State has 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'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. A list of abbreviations used in this letter is set out in Annex B: List Of Abbreviations.

4.2. The Secretary of State has had regard to the Local Impact Reports ("LIR") submitted by Breckland Council, Broadland District Council ("Broadland DC"), North Norfolk District Council ("North Norfolk DC"), and Norfolk County Council ("Norfolk CC"), environmental information as defined in Regulation 2(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 National Policy Statements ("NPSs"). 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. The Energy White Paper, Powering Our Net Zero Future, was published on 14 December 2020. It announced a review of the suite of energy National Policy Statements but confirmed that the current Nationally Policy Statements were not being suspended in the meantime. The relevant energy Nationally Policy Statements therefore remain the basis of the Secretary of State's consideration of the Application.

4.3. 113 Relevant Representations were made in respect of the Application by statutory authorities, non-statutory authorities, businesses, non-governmental organisations, individuals, and representative bodies. 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.

4.4. In the ExA's Report, the Secretary of State identified a number of issues upon which further information or clarification was required. A consultation letter was issued on 28 April 2021³ requesting responses by 28 May 2021, and subsequently extended to 25 June 2021. Following consideration of the information received a further consultation letter was issued on 9 July 2021⁴ requesting responses by 20 August 2021. A final consultation letter was issued on 22 September 2021⁵ requesting responses by 21 October 2021, along with a clarification letter on 24 September 2021 in response to queries from the Applicant on which offshore wind farm projects to include in the requested updated ornithological modelling⁶. All the consultation responses have been published on the National Infrastructure Planning website's Norfolk Boreas project page⁷. The responses to the consultation have been incorporated into this decision letter in the relevant sections and have informed the final decision. Details of the information provided have been incorporated into this decision letter in the appropriate locations.

Implications of the Norfolk Vanguard judicial review for the determination of the Norfolk Boreas application

4.5. On 18 February 2021, the High Court of Justice handed down a judgment which quashed the development consent order that had been granted by the Secretary of State for the proposed Norfolk Vanguard⁸ offshore wind farm. The Secretary of State notes in particular the finding of the judge that a decision on development consent for the first of two projects closely related in time and in close geographical proximity (such as Norfolk Vanguard and Norfolk Boreas) cannot be made without adequate consideration of the cumulative impacts of both projects and a proper weighing of those cumulative impacts in the overall planning balance. Given that Norfolk Boreas is now the first of these two projects to be decided, the Secretary of State has set out his conclusions on cumulative impacts as between Norfolk Boreas and Norfolk Vanguard as they arise in the consideration of individual topics detailed below. He has also carefully considered the comments of the judge regarding consultation with Interested Parties on the procedure for determining both the Norfolk Vanguard and Norfolk Boreas applications in light of the judgment. As a result, on 29 April 2021, the Secretary of State issued a consultation letter to all Interested Parties on both the Norfolk

³ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002810-NORB-Secretary-of-State-letter.pdf>

⁴ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002833-NORB-further-consultation-letter-9-7-21.pdf>

⁵ https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002866-NORB_SoS_Consultation_September_2021.pdf

⁶ https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002874-NORB_clarification_letter_-_September_2021.pdf

⁷ <https://infrastructure.planninginspectorate.gov.uk/projects/eastern/norfolk-boreas/?ipcsection=docs&stage=6&filter1=Secretary+of+State+consultation>

⁸ *Pearce and Secretary of State for Business, Energy & Industrial Strategy and Norfolk Vanguard Limited* [2021] EWHC 326 (Admin) - <https://www.bailii.org/ew/cases/EWHC/Admin/2021/326.html>.

Vanguard and Norfolk Boreas applications requesting information following the judgment⁹ with a deadline for responses of 20 May 2021.

- 4.6. The Secretary of State received responses to this consultation along with responses to the second and third Norfolk Boreas consultation letters which argued that the two projects should be treated as one project rather than two separate applications and that a fresh, unified, application should be submitted for examination. The Secretary of State notes the conclusion of the judge that Norfolk Boreas and Norfolk Vanguard are properly considered as two separate projects¹⁰, and in the light of that clear conclusion does not consider that this is necessary. However, the Secretary of State has taken care to ensure, whilst treating the two projects separately, that their cumulative impacts are properly considered and mitigated for.
- 4.7. A number of the responses to the Secretary of State's consultation letter of 29 April 2021 requested that the re-determination of the Norfolk Vanguard project application should proceed by way of a re-opening of the examination process. Having considered all the comments that had been submitted to him, the Secretary of State, while noting that it would be possible for him to re-open the examination into the Norfolk Vanguard development consent application, decided that the necessary re-determination of the application would proceed by way of written representations and explained this in his letter of 5 July 2021.
- 4.8. The Secretary of State notes that the consideration of development consent applications submitted under the 2008 Act process is primarily based on written representations. The Secretary of State considers that based on the combination of the information in the Norfolk Vanguard Examination Library and the additional information he was able to obtain via the consultation process, he was able to consider cumulative impacts properly without a new examination. He considers that the written representations process provided an appropriate mechanism for Interested Parties to draw to his attention the details of any arguments about relevant matters.
- 4.9. In response to the Secretary of State's final consultation letter of 22 September 2021 an interested party contested that it could not be assumed that the Interested Parties for the Norfolk Boreas application will be exactly those for the Norfolk Vanguard application as otherwise the insistence that the two projects are separate would be further flawed. The Secretary of State notes that in order to ensure that the issues relating to each project were properly considered consultations have been undertaken separately for each project after the joint consultation letter of 29 April 2021. The Secretary of State notes further that following the joint consultation letter of 29 April 2021 the subsequent Norfolk Vanguard consultation letters issued on 5 July 2021 and 11 October 2021 were copied to all Norfolk Boreas Interested Parties. The Secretary of State has carefully considered the responses to these letters to establish whether they contained new information relevant to the Norfolk Boreas application. Further, the Secretary of State notes that his consultation letter of 28 April 2021 related to issues arising from his review of the ExA's Report, that the specific questions in his letter of 9 July 2021 related solely to Norfolk Boreas offshore issues, and that the letter of 22 September related predominantly to offshore issues. The Secretary of

⁹ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010079/EN010079-004303-NORV-Re-Determination-Consultation-Letter-29-April-2021.pdf>

¹⁰ At paragraph 128 of the judgment.

State considers that the various points highlighted above demonstrate that all practical measures have been taken to avoid the concerns expressed and that fair publicity for the consultations has been given to the relevant information.

- 4.10. In determining the Norfolk Boreas application, the Secretary of State has ensured that the responses to consultations undertaken for the Norfolk Vanguard re-determination have been scrutinised to identify whether they raise any issues for the determination of the Norfolk Boreas application which have not been drawn to his attention through his consultations for the Norfolk Boreas application.

Need for the Development

- 4.11. The Secretary of State notes that the Application is a 'Nationally Significant Infrastructure Project' 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 100MW.
- 4.12. The ExA concluded that the Development accorded with the guidance in the Overarching National Policy Statement ("NPS") for Energy (EN-1), NPS for Renewable Energy Infrastructure (EN-3); and the NPS for Electricity Networks Infrastructure (EN-5) [ER 3.2.5]. The ExA was satisfied that the need for the Development has been established and recommended that the Secretary of State should give substantial weight to the contribution that the Development would make to satisfying the need for this type of energy infrastructure (EN-1, Para 3.1.4). The ExA considered that the presumption in favour of development for offshore wind, as an energy type set out in NPS EN-1, would therefore be engaged (EN-1, Para 4.1.2). The ExA considered that the Development would significantly contribute to the Government's "net zero" emissions target [ER 7.2.5], and that the significant contribution to be made by the Development carries substantial weight in favour of the Order being made [ER 7.2.6].

The Secretary of State's Conclusion

- 4.13. The Secretary of State agrees the Development would accord with NPS EN-1, EN-3, and EN-5.
- 4.14. The Secretary of State agrees that substantial weight should be attributed to the contribution that the Development would make towards meeting the national need demonstrated by the Overarching NPS for Energy (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).
- 4.15. The Energy White Paper, *Powering our Net Zero Future*, was published on 14 December 2020. It announced a review of the suite of energy NPSs but confirmed that the current NPSs were not being suspended in the meantime. The relevant energy NPSs therefore remain the basis for the Secretary of State's consideration of the Application.

Traffic and transportation

- 4.16. The Secretary of State notes the concerns related to the impacts of construction traffic of the Development alone and cumulatively with other offshore wind farms upon several sensitive locations, in particular the villages of Oulton and Cawston and the Old Railway Gatehouse.

- 4.17. The Environmental Statement (“ES”) considered construction, operation and decommissioning of the onshore elements of Scenarios 1 and 2, based on forecasts of background levels of traffic for 2023 (Scenario 1) and 2026 (Scenario 2). It assessed 108 highway links for severance, pedestrian amenity, road safety and driver delay. The Outline Traffic Management Plan (“OTMP”) contains standard mitigation measures [ER 5.2.11].
- 4.18. Embedded mitigation for both Scenarios includes provision of side accesses, measures to minimise Heavy Good Vehicle (“HGV”) movements, and reducing employee movements on local routes [ER 5.2.10]. Enhanced measures are proposed where significant effects would still arise following embedded mitigation, including driver training, parking controls, monitoring and reporting, and complaint response standards [ER 5.2.12]. Further mitigation is proposed for six specific Links in Scenario 2 [ER 5.2.13].
- 4.19. The B1145 through Cawston (“Link 34”) would be used to access three cable sections and two trenchless crossings [ER 5.2.17]. It is classified as a “Main Distributor” by the Highway Authority, Norfolk County Council (“Norfolk CC”) [ER 5.2.24], which was satisfied that taking construction traffic through Cawston was the only viable route [ER 5.2.53]. Cawston Parish Council (“Cawston PC”) and several residents argued that Cawston High Street is not suitable for HGV construction traffic, and particularly the cumulative Hornsea Project Three traffic. The main concerns were narrow footpaths, pedestrian safety, loss of roadside parking, air quality, and impacts on properties close to the High Street [ER 5.2.34].
- 4.20. The worst-case scenario for the Development alone predicted 29 daily HGVs, with predicted cumulative construction impacts with Hornsea Project Three of 351 HGV movements, 1211.6% above the baseline, with a peak flow of 56 HGVs per hour during the defined eight hours of construction, and the Applicant concluded a major adverse significant cumulative effect at Link 34 [ER 5.2.20]. Overlapping weekly HGV profiles for the two Projects identified 260 to 351 daily movements for four non-consecutive weeks, and 136 to 215 cumulative daily movements for 39 weeks [ER 5.2.21]. The ES found moderate adverse effects on Link 34 which is significant in Environmental Impact Assessment (“EIA”) terms [ER 5.2.24].
- 4.21. A Highway Intervention Scheme (“HIS”) [REP4-016] has been developed to reduce the residual impact on Cawston below significant levels. It was revised throughout the Examination and further developed to mitigate impacts for Hornsea Project Three alone, Norfolk Vanguard alone, the Development alone, and the three projects cumulatively [ER 5.2.27 et seq.]. Ørsted (the Hornsea Project Three developer) agreed that the Applicant, Norfolk Vanguard and Hornsea Project Three are all committed to implementing the revised HIS as single or cumulative project mitigation [ER 5.2.40]. The HIS caps daily HGV movements at 112 for the Development, and a managed cumulative traffic demand of 239 daily HGV movements [ER 5.2.28 et seq.]. The Applicant submitted a number of measures to address Norfolk CC’s concerns that the HIS could fail and Norfolk CC confirmed it was confident that the cumulative HGV peaks could be managed post-consent [ER 5.2.30 et seq.]. With mitigation the worst period for cumulative construction traffic effects would be 27 out of the 48 weeks construction period in Cawston, and the peak 127 HGVs for Hornsea Project Three is reduced from 11 months to one [ER 5.2.47]. The ExA concluded the revised HIS would mitigate the adverse effects of HGV movements from the Development alone, and cumulatively with Norfolk Vanguard and Hornsea Project Three [ER 5.2.48]. Norfolk CC was content with the amended HIS, and the ExA accepted that the HIS, set out in the OTMP, will deliver mitigation of adverse cumulative effects on traffic and transport [ER 5.2.61].

- 4.22. The ExA is content that traffic noise issues can be addressed through the Cawston noise monitoring plan in the Outline Code of Construction Practice (“OCoCP”) [ER 5.2.52].
- 4.23. In response to the concerns of the resident of Whitehouse Farm, the ExA was satisfied that the introduction of a 20mph speed limit would prove beneficial by slowing traffic as it approached the restricted visibility access to the property [ER 5.2.46].
- 4.24. Link 68 would also serve Hornsea Project Three’s main construction compound at Oulton Airfield [ER 5.2.64]. Cumulative effects occur in both Scenarios. The worst case (overlap of Scenario 2 duct installation with Hornsea Project Three) was 242 HGVs over six consecutive weeks, a cumulative increase of 198 HGVs (451.5%) over the 44 HGV baseline, with a peak flow of 25 HGVs per hour during the defined hours of construction (approximately 10 hours). This was a moderate adverse effect [ER 5.2.66]. The cumulative assessment included agricultural vehicles during harvest periods [ER 5.2.68]. The ExA notes that Link 68 is a reasonable width with good visibility and relatively few sensitive receptors, and considers that the proposed use of Link 68 for construction traffic in principle is acceptable [ER 5.2.76]. Oulton Parish Council (“Oulton PC”) expressed concerns about inadequacies in the Applicant’s baseline data, but Norfolk CC agreed with the Applicant’s approach [ER 5.2.67].
- 4.25. The Applicant has proposed a Highway Mitigation Scheme (“HMS”) to address the adverse effects of construction traffic on Link 68. Norfolk CC raised no objections to it [ER 5.2.77].
- 4.26. Broadland DC, Oulton PC, and the residents of the Old Railway Gatehouse were concerned with the adverse effects of construction traffic on the Old Railway Gatehouse [ER 5.2.71]. The Applicant proposed acoustic glazing and a 2m high acoustic barrier wall to minimise the potential perceived disturbance [ER 5.2.73]. Broadland DC confirmed no further mitigation would be required to address the cumulative effects and were satisfied that the HMS would effectively mitigate the adverse effects of increased HGV traffic on the Old Railway Gatehouse [ER 5.2.74 and 78]. The residents of the Old Railway Gatehouse were not satisfied and the Applicant agreed further physical alterations would be considered post consent [ER 5.2.74]. The ExA was satisfied the HMS and property improvements in the OTMP would adequately mitigate the temporary increase in traffic outside the Old Railway Gatehouse [ER 5.2.78].

Post-examination consultation

- 4.27. Several parties, including Cawston and Oulton Parish Councils, raised concerns about the cumulative traffic impacts if the proposed Dudgeon and Sheringham Extension Projects are taken into consideration. In its response to the 9 July 2021 consultation letter, Oulton Parish Council highlighted that those Projects have shortlisted Oulton for their main construction compound, that Equinor (the project promoter) had only provided traffic data for the cable route construction, landfall, and substation, but not for the main construction compound, and that consequently the traffic figures used by Norfolk Boreas at Link 68 may be incorrect, with attendant knock-on effects for noise, air quality, etc at Oulton. In its response to the 22 September 2021 consultation letter, Oulton Parish Council expressed concerns that construction of the proposed Dudgeon and Sheringham Extension Projects cable routes would cause agricultural vehicles to have to find alternative routes with potential increases in traffic through Cawston or Oulton. In its response to the 22 September 2021 consultation letter Cawston Parish Council expressed concerns that the cumulative impacts of the Norfolk Boreas and Norfolk Vanguard Projects with the proposed Dudgeon and Sheringham Extension Projects would be felt in Cawston and beyond for eight years or more. Although

the Parish Council did not specify what those cumulative impacts would be the Secretary of State has, based on the ExA's Report, chosen to treat them as applying to all instances of construction impacts.

- 4.28. The Secretary of State has considered the concerns raised during his consultation carefully and notes the concerns raised about potential cumulative increases in traffic from the construction of the proposed Dudgeon and Sheringham Extension Projects. The Secretary of State has reviewed the information relied upon by Oulton Parish Council¹¹ and notes that the Dudgeon and Sheringham Extension Projects' Preliminary Environmental Information Report has screened out cumulative construction impacts with Norfolk Vanguard on the basis that the peak construction traffic of nine HGV movements a day for the Dudgeon and Sheringham Extension Projects is expected in 2025, which would not be likely to overlap with the Norfolk Boreas cable route construction schedule of 2023 to 2024 and cable pulling in 2026 and 2027 for Scenario 1, although there may be an overlap of cable pulling in 2025 in Scenario 2¹². However, the Secretary of State notes that this is still uncertain as it depends upon the timings for the Dudgeon and Sheringham Projects, which have yet to be submitted for examination: on this basis the Secretary of State considers that the mitigation of any potential cumulative impacts arising from the use of Link 68 through Oulton should be dealt with as part of the application for development consent for those Projects. The Secretary of State notes the concerns that Oulton may be selected as the main construction compound, but also notes that it is one of several possible sites: the Secretary of State considers that this is too uncertain an issue to address in the present Application and that it is appropriate for the promoter of the Dudgeon and Sheringham Extension Projects to deal with as part of that application for development consent. The Secretary of State does not consider that the concern about displaced agricultural traffic provides enough information to reach a conclusion on, and as it relates to the Dudgeon and Sheringham Extension Projects he considers that it is appropriate for the management of agricultural traffic to be addressed by those Projects as part of the development consent application for them.

The Secretary of State's Conclusions on Traffic and Transportation

- 4.29. The ExA concluded the mitigation secured in the OTMP and the CoCP would ensure the Development meets the policy tests in Overarching NPS for Energy (EN-1) [ER 7.3.4]. The cumulative effects of traffic from the Development and other major construction projects would place a heavy burden on the local highway network and local communities during the construction despite the mitigation [ER 7.3.5]. The ExA attributed medium weight against making the Order [ER 7.3.6].
- 4.30. Despite Norfolk CC approving the revised HIS and HMS, the ExA concluded adverse effects on the local highway network and local communities would be significant despite the proposed mitigation [ER 5.2.89]. The ExA considers construction traffic would inevitably have significant effects on the local network, would have to access narrow rural lanes, and the cumulative effects of the construction traffic of the offshore wind farms could be much greater than assessed in the Cumulative Impact Assessment ("CIA"). The ExA concluded traffic and transport effects have medium weight against the making of the Order [ER 5.2.93].

¹¹ Updated Information on Cumulative and In-Combination Effects with the Dudgeon and Sheringham Shoal Extension Projects [[ExA.As.D12.V1](#)]

¹² Outline Traffic Management Plan (version 7) [[REP18-021](#)]

4.31. The Secretary of State has considered the ExA's report. He notes impacts on traffic, particularly in Cawston and Oulton, will be unavoidable, but considers reasonable mitigation measures can be secured through the Order (as amended) to reduce impacts and traffic and transport impacts in accordance with NPS EN-1. The Secretary of State has also considered the consultation responses that have been submitted to him. The Secretary of State considers that these do not provide any material that requires him to disagree with the ExA's conclusion on weighting, and consequently he accords medium weight against making the Order.

Landscape and visual effects

4.32. Landscape and visual impacts of the Development would be experienced within the areas of Breckland Council, Broadland DC, and North Norfolk DC [ER 5.2.23]. Embedded mitigation includes underground lines, strategic landscape mitigation, hedgerow crossing, lighting, and the selection of the landfall site, the onshore cable route, the onshore project substation, and the National Grid substation extension [ER 5.3.19].

4.33. The ExA considered the explanation for the choice of landfall location, which would minimise environmental impacts, to be persuasive [ER 5.3.41 et seq.]. The ExA was content with the Applicant's case for adopting the same cable corridor routing as proposed for Norfolk Vanguard, which was considered to have fewer adverse environmental effects [ER 5.3.44 et seq.]. The ExA considered that High Voltage Direct Current ("HVDC") transmission provided benefits in terms of construction and operation including energy efficiency, fewer cables, no cable relay stations, fewer cable jointing pits, and speedier duct installation and cable pulling, which would arise from the choice of HVDC transmission and aligning the cable corridor with that proposed for Norfolk Vanguard [ER 5.3.50 et seq.].

4.34. The Outline Landscape and Ecological Management Strategy ("OLEMS") will be the basis for the Landscaping Management Scheme ("LMS") and the Ecological Management Plan (EcoMP) which would be provided for approval post-consent [ER 5.3.20 et seq.].

Open space and green infrastructure

4.35. The beach and foreshore at the Happisburgh South landfall and the crossing of the Marriot's Way long distance footpath could be affected by the Development, but trenchless crossing techniques mean there is no loss of open space or impact on public access, and the ExA considered new or additional open space was not required [ER 5.3.184].

4.36. The Development would fragment current hedgerow connectivity, but the Applicant proposed hedgerow replacement exceeding that removed (1,040m for Scenario 1 and 3,364m for Scenario 2) that was designed to connect existing habitats, with in situ planting apart from 6m gaps over cables [ER 5.3.185 & 5.3.186]. Opportunities to enhance biodiversity would be taken including areas at the substations which would increase the area given over to wildlife [ER 5.3.185]. The multifunctional aims of the mitigation planting would include strengthening landscape character, restoring historic enclosure patterns, providing connectivity, increasing biodiversity, and attenuating run-off, set out in the OLEMS, although suggested off-site enhancements to address cumulative adverse heritage effects are not secured [ER 5.3.186]. The post-consent discharging authorities, together with the relevant nature conservation body, would need to satisfy themselves that this multifunctionality would be achieved through the detailed designs and maintenance plans submitted in the LMS and the Ecological Management Plan. The ExA agreed with the addition of details of the

sustainable drainage measures to the landscape details to be approved in the LMS at Requirement 18(2)(i) [ER 5.3.188]. The ExA concluded that open space and green infrastructure matters do not weigh against the making of the Order [ER 7.3.16].

Decommissioning

- 4.37. The detail and scope of onshore decommissioning works would be determined by the legislation and guidance in place at that time, would be agreed with the regulator and a decommissioning plan would be provided. The Applicant has used the impacts of the construction phase as the worst-case scenario [ER 5.3.190]. The Secretary of State considers this approach is appropriate.

Necton substation

- 4.38. Due to the implications of the Norfolk Vanguard judicial review and the concerns expressed by various Interested Parties in relation to the cumulative impacts of the Necton substation, the Secretary of State has drawn together the various aspects of landscape and visual effects arising from the proposed substations here. In particular, the Secretary of State is conscious of the need to make a reassessment of the weight to be attributed to the landscape and visual impacts arising from the proposed substations at Necton when considered cumulatively against the existing baseline and taking account of any further relevant representations on this issue received during the further consultations.
- 4.39. In Scenario 1 the National Grid Necton substation would be extended to the south east, and the onshore project substation would be located slightly further east than in Scenario 2 to accommodate the onshore project substation for Norfolk Vanguard (in the event that development was granted): In Scenario 2, the National Grid substation extension would be to the north west [ER 5.3.24].
- 4.40. The Secretary of State notes that Breckland Council consider the Development's substation and National Grid substation extension would have a major impact on the visual appearance of the landscape and the countryside, independently or in combination with Norfolk Vanguard [ER 5.3.25].
- 4.41. Breckland Council drew attention to the renewable energy infrastructure design policy (ENV 10) in its adopted Local Plan (28 November 2019). The Council accepted some flexibility through a project design envelope but considered due regard needs to be given to the detailing, quality of materials and relation to surroundings of the structures [ER 5.3.27]. The Council expected different options would be presented to third parties for feedback and that the community and key stakeholders would be involved, requesting this process to be included in an updated DAS [ER 5.3.28]. The Council supported the Applicant's approach to preparing a Design Guide for future approvals of the exact details of layout, scale, and external appearance of the proposed onshore substation [ER 5.3.29].
- 4.42. Interested Parties were concerned about the dimensions of the onshore project substation due to need for converter halls, and considered the full extent of the onshore substation height differences from selecting HVDC (up to 14.9m greater than HVAC) had not been fully explained at consultation events [ER 5.3.48 et seq.]. The ExA was not convinced there was an adequate understanding of the difference in dimensions by all those representing the residents of Necton, noting the Applicant made limited reference to this in its Site Selection

and Assessment of Alternatives. Despite this reservation, the ExA considered that the Applicant had assessed the two alternative technologies appropriately [ER 5.3.52 et seq.].

- 4.43. The ExA considered the Applicant had met the consultation requirements of the 2008 Act, but noted frustrations from the Applicant and the local community at Necton which it attributed to a lack of clarity over whether consultation covered the Development or Norfolk Vanguard and the move to two scenarios for the Development. Submissions also indicated not all Interested Parties had appreciated the implications of using HVDC technology on the substation dimensions [ER 5.3.134 et seq.]. The height and size of the proposed converter halls was the matter about which most concern was raised [ER 5.3.113].
- 4.44. Many Interested Parties challenged the onshore substation's location [ER 5.3.48]. The key arguments were: its high visibility as the site is on a watershed and the highest point in the local area; the selection process was flawed; there was a better, alternative site at Top Farm; and consultation regarding the location of the substation had not been thorough enough [ER 5.3.55]. The ExA considered the Applicant's explanation of the advantages of the proposed location and the process for selecting it, the disadvantages of Top Farm, and the legal position regarding alternatives. It agreed that the submissions on Top Farm did not meet the test in NPS EN-1 Para 4.4.3 because they were vague and inchoate, were not identified in sufficient detail to allow appropriate consultation and development of a suitable evidence base, nor with evidence for suitability [ER 5.3.61 et seq.]. The ExA was content that the National Grid's Horlock Rules¹³ were taken into consideration and it would be appropriate to include mechanisms for post-consent discharge of requirements to be assessed against the guidelines contained within the rules [ER 5.3.67]. The ExA was satisfied the Applicant was diligent in considering the alternatives and had met the tests set out in NPS EN-1 (Paras 4.4.2 and 4.4.3). Policy does not require refusal where a site with fewer adverse impacts exists: physical suitability needs to be demonstrated, and alternatives would require more detail than was provided [ER 5.3.70]. The ExA agreed no alternative put forward for any aspect of the Development would meet the tests in NPS EN-1 (Para 4.4.3), and concluded the consideration of alternatives for landscape and visual matters was adequate and that the requirements of Section 4.4 of NPS EN-1 have been met [ER 5.3.192].
- 4.45. The ExA noted that the onshore project substation and the National Grid substation extension would be subject to detailed post-consent design to ensure blending with the local environment in accordance with a set of design parameters and a design process in the Design and Access Statement ("DAS") [ER 5.3.111]. The ExA considered that any bunding should blend with the local landform, and welcomed the Applicant's addition to the OLEMS for selective use of larger plant material as screening in prominent locations [ER 5.3.122]. The Applicant and Breckland Council agreed further post-consent work would be undertaken on the extent and design of bunding and screen planting, which it considered related intrinsically with the ground level design [ER 5.3.132]. The ExA was satisfied Breckland Council would have a role in approval of the ground levels for the proposed substation, but noted this would be submitted under two separate requirements – 16(4) in the DAS and 18(2)(g) in the LMS [ER 5.3.127].
- 4.46. The ExA noted widely held views that insufficient substation design information was provided in the application and secured in the draft DCO [ER 5.3.161]. The Applicant considered more

¹³ National Grid (undated) Guidelines on Substation Siting and Design (The Horlock Rules)
<https://www.nationalgrid.com/sites/default/files/documents/13796-The%20Horlock%20Rules.pdf>

detail was not required because the EIA was conducted on a 'Rochdale Envelope' series of maximum extents secured under Requirement 16 [ER 5.3.162]. Whilst the ExA accepted the need for flexibility at the draft DCO stage and that the ES set out the maximum extent to the best of the Applicant's knowledge, it considered the Applicant had not gone far enough in meeting the criteria for good design in Section 4.5 of NPS EN-1 [ER 5.3.163 et seq.]. The ExA was not satisfied the Applicant would be required to take into account both functionality and aesthetics, nor that consideration would be given to the design and sensitive use of materials to assist in ensuring the proposed onshore substation would contribute to the quality of the area (EN-1, Paras 4.5.3 to 4.5.4) [ER 5.3.164]. The proposed onshore substation did not demonstrate good aesthetics as far as possible as required by NPS EN-1 (Para 4.5.1), and the ExA was concerned the post-consent discharging authority would not have a secured basis on which to require delivery of good design other than a commitment to mitigation planting, which would still result in significant adverse effects over a timescale the ExA considered unreasonable [ER 5.3.165].

- 4.47. The ExA examined the DAS and the design process' consultation review arrangements [ER 5.3.138]. The ExA considered it appropriate for Breckland Council, as the discharging authority, to determine the purpose and parameters of the engagement process with the Applicant, not the two affected landowners [ER 5.3.138 et seq.]. The ExA noted the strong sentiment regarding the need for post-consent consultation [ER 5.3.145]. The ExA considered the content for approval in Requirements 16 and 18 was detailed, complex, contained overlaps and inter-relations between the DAS and the OLEMS, especially for the substations as well as involving engagement over some elements at different times during the design and construction period, as well as containing overlap between Requirements 18, 19 and 24, particularly in relation to hedgerows, and acknowledges the resource implications for the local planning authorities and the requirements that it would place upon them [ER 5.3.151]. During the Examination, the Applicant provided additions to Requirements 16 and 18, the DAS and OLEMS, which provided clarification of the design process and commitment to the preparation of a Design Guide for the onshore project substation [ER 5.3.156]. The ExA welcomed the Applicant's addition of a reference to the guidance section in the DAS that the project design would take account of the National Infrastructure Commission's Design Principles for National Infrastructure¹⁴ published during the Examination [ER 5.3.157 & 160]. The ExA welcomed additions to the DAS, including the Design Guide and the commitment to use a local design review process, and the Zoning Plans which would restrict the taller converter halls to the part of the substation site farthest from sensitive visual receptors, which would constrain the original Rochdale Envelope [ER 5.3.181].
- 4.48. The ExA included wording in the recommended DCO, consulted upon during the Examination, to secure an early independent design review of the onshore project substation [ER 5.3.170]. The ExA did this against the views of the Applicant and Breckland Council because of, inter alia, the strong community representations regarding the substations' design and the need for mitigation, the complexity of the approvals process which does not lend itself to a holistic view, and the need for an integrated design approach for Scenario 1 [ER 5.3.171].
- 4.49. The ExA suggested the Secretary of State may wish to consider ways to make a holistic design approach under Scenario 1 more secure, for instance through the proposed Co-

¹⁴ National Infrastructure Commission; Design Group, Climate People Places Value, Design Principles for National Infrastructure, February 2020 (<https://nic.org.uk/nic-design-principles/>)

operation Agreement between Norfolk Boreas and Norfolk Vanguard [ER 7.3.12]. The Secretary of State followed up on this suggestion as part of his consultation letter of 28 April 2021. The Applicant explained it was still in draft form and the terms were confidential between Norfolk Boreas Limited, Norfolk Vanguard Limited, and Vattenfall Wind Power Limited [Applicant's Response to the Request for further information, June 2021]. As the Secretary of State has not been able to consider the scope or terms of the agreement he cannot take it into consideration in determining the Application.

- 4.50. The substations would not normally be manned during operation and site lighting would only be required during maintenance activities (on average once per week): the ExA was content that the Ecological Management Plan, would secure this. The ExA was content that requirement 20(2)(c) would be adequate to mitigate adverse visual effects at the substations and adverse wildlife effects during construction [ER 5.3.131].
- 4.51. The ExA was content that the future access of a landowner to an adjacent field affected by Scenario 1 was satisfactorily addressed and that details of fencing and planting to allow large machinery access could be agreed post-consent [ER 5.3.141 & 5.3.146].
- 4.52. The ExA considered that the use of T-pylons would not be appropriate for the new and replacement pylons where the rest of the overhead line is supported by lattice pylons [ER 5.3.67 et seq.].
- 4.53. The ExA had ongoing concerns about how the post-consent discharge process would deliver an integrated design approach at Necton, especially for Scenario 1 [ER 7.3.11]. It considered the principles of good design would not be entirely met at the substations and, predicated on the early independent design review, ascribed little weight against the Order being made to matters of good design. Without the early independent design review, the ExA considered that matters of good design would weigh further against making the Order [ER 7.3.13].

Cumulative landscape and visual effects

- 4.54. Norfolk Vanguard and Hornsea Project Three are the projects included in the Landscape and Visual Impact Assessment's ("LVIA") CIA. If development consent is granted, Norfolk Vanguard is expected to have long term (20 years) significant adverse operational effects on landscape character and on some visual receptors. Under Scenario 2 Hornsea Project Three has short term, reversible, adverse construction effects on walkers as visual receptors. The Scenario 1 CIA took Norfolk Vanguard as part of the baseline as it was assumed to be operational. The Secretary of State is, however, conscious that he will need to reassess the weight to be attributed to cumulative landscape and visual effects against the existing baseline rather than on the assumption that Norfolk Vanguard is operational. This is because the Secretary of State considers that adopting conclusions of the ExA that were made on the basis that Norfolk Vanguard had already obtained development consent would be unfair and would prevent a full consideration of the cumulative impacts concerned such that it might be said that one scheme had enabled the other to get 'a foot in the door'. As a result, in considering both scenarios for Norfolk Boreas, the Secretary of State has relied upon the existing baseline (i.e. without Norfolk Vanguard). For all receptors assessed in the CIA the overall assessment of significance and duration is the same as Scenario 1 [ER 5.3.152]. There were no outstanding issues on the CIA from Breckland Council, Broadland DC, Norfolk CC, North Norfolk DC, and Ørsted, but many Interested Parties remained concerned about cumulative adverse landscape and visual effects from the substations. The ExA considered these at the same time as Scenario 1 [ER 5.3.153].

- 4.55. The Applicant's proposal to treat the substations of the Norfolk Vanguard and Norfolk Boreas as "identical twins", as illustrated in its visualisations, with a view to complement one another is not secured beyond an addition to the DAS that "consideration will be given to a design approach which can be applied across both projects" [ER 5.3.154].
- 4.56. The ExA noted sustained disagreements about the accuracy of the ES visualisations in correctly illustrating the actual landform and that concern was still being raised at the end of the Examination [ER 5.3.95 et seq.]. The Applicant stated that the visualisations may overestimate the Rochdale Envelope for the substation [ER 5.3.99 et seq.]. The ExA did not agree that the visualisations represented the worst case, and noted that for Scenario 1 there would be no control over whether the massing, height, materials, and colour of the converter halls for the Development matched or complemented those for Norfolk Vanguard, which were matters NPS EN-1 (Para 5.9.22) requires to be considered carefully [ER 5.3.103]. It concluded that although they did not represent the worst case that they were fit for purpose [ER 5.3.105].
- 4.57. The ExA was satisfied cumulative adverse landscape and visual effects would be no more than assessed and reinstatement meant those effects would be short term and reversible [ER 5.3.74]. It considered the impact on hedgerows was assessed in accordance with the appropriate guidance and the Hedgerow Management Strategy, part of the Ecological Management Plan, would ensure the necessary hedgerow retention, removal, replacement, and maintenance for both Scenarios [ER 5.3.78]. North Norfolk District Council called for a ten-year (rather than five) replacement planting period for its District, based on evidence of the characteristics of its soils, and for replacement tree planting to be implemented in its area rather than elsewhere along the cable corridor or at the Necton substation [ER 5.3.33]. The ExA was satisfied this is secured in the recommended DCO [ER 5.3.83].
- 4.58. The ExA concluded that not all of Breckland Council's Local Plan policy requirements (mentioned in paragraph 4.41 above) would be capable of being met, but that better adherence to these would be achieved through outputs from the design process, including an independent design review [ER 5.3.182].
- 4.59. The ExA welcomed the constraints imposed by the Zoning Plans in the DAS and sought to secure processes for determining the future detail design rather than pin down all the detail at this stage [ER 5.3.104].
- 4.60. The ExA found the Applicant's reliance upon a Rochdale Envelope which concluded residual significant adverse effects for up to 25 years as a reason for not needing to consider further mitigation or aspects of design was not in line with NPS EN-1 (Para 5.9.16) and that 25 years for a design life of 30 years for the Development was not a reasonable time scale before adverse effects would be capable of being reversed [ER 5.3.107].
- 4.61. The ExA had regard to the large number of not significant adverse landscape and visual effects in considering the weight to attribute against the Order being made [ER 5.3.89]. The ExA considers the accumulation of such adverse effects which are not capable of reversal in a reasonable timescale requires a comprehensive and detailed design approach to post-consent discharge of requirements 16, 18, 19 and 24 of the DCO in order to comply with Overarching NPS for Energy (EN-1) [ER 7.3.7]. The ExA attributed medium weight against making the Order [ER 7.3.10].

The ExA's Conclusions

- 4.62. The ExA was satisfied the requirements of the National Planning Policy Framework ("NPPF") would be met, although it noted that this depends on future approvals, which if in line with the NPS and Local Plan policies would also meet the NPPF's requirements [ER 5.3.191]. The ExA was satisfied no alternative proposed for any part of the Development met the tests in NPS EN-1 (Para 4.4.3), and that the Applicant had considered alternatives appropriately and that the requirements of Section 4.4 of NPS EN-1 have been met [ER 5.3.192].
- 4.63. The ExA was satisfied that although not representative of the worst case the visualisations in the LVIA were fit for purpose, but that in Scenario 1 an accurate representation of the Norfolk Vanguard infrastructure should be incorporated for future post-consent consultations [ER 5.3.193]. It considered the methodology was unduly complicated, which led to uncertainty over the accuracy of the findings, including how professional judgement has been applied. The ExA did not challenge the overall findings but had borne this in mind in reaching other conclusions on landscape and visual matters and the need for mitigation. The ExA noted the binary assessment of significance led to the majority of adverse effects being considered not significant, although it was satisfied that the assessment had followed guidance and covered construction and operational effects and assessed the effects of the cable corridor [ER 5.3.194].
- 4.64. The Secretary of State has considered the ExA's caveat that its conclusions are predicated upon the assumption that the relevant local authorities will have sufficient capacity to discharge the requirements included in the DCO [ER 7.1.2]. In this context the Secretary of State notes that both the Applicant and local authorities expected that Planning Performance Agreements ("PPAs") would be put in place, the stated intent of the Applicant to commit to them, and that all parties were content that the scope and funding arrangements of such agreements would be negotiated post consent [ER 9.7.1]. Further the Secretary of State notes that the ExA has given no weight either for or against the funding issue in reaching its recommendations [ER 9.7.4]. Based on this information the Secretary of State is content that this matter does not require further action prior to his making his decision.

Post-examination consultation

- 4.65. The Secretary of State has received a number of responses to his consultations both on the re-determination of the Norfolk Vanguard application and in relation to the determination of the Norfolk Boreas application. These have been considered carefully. The responses raised the following issues: whether the information submitted for both Norfolk Vanguard and Norfolk Boreas was adequate; lack of detailed substation design; the limited remit of the design review, and the need for a proper and independent review; whether Necton is a suitable location for the substations for both projects; whether a substation location should have been found further away from a populated area; concerns that the mitigation proposed would not be effective, including whether it is possible to be confident about its effectiveness in the absence of a detailed design for the substations; the need to ensure that the substations are sufficiently hidden from sight; whether landscape mitigation would focus on impacts for users of the A47 or local residents; concerns about the limited mitigation offered to date by the tree planting for the existing Dudgeon substation and the failure of planting on the Norwich Northern Distributor Road; long term cumulative visual impacts which may exceed the Applicant's assertion of only localised high visibility; concerns about the accuracy of the photomontages presented by the Applicant; the Applicant's compliance with the Horlock Rules; that the design guide for the substations would not be written until after a

decision on the Norfolk Boreas application had been made; concern that the Design and Access Statement has predetermined a sheet steel finish with a fixed palette of colours; lighting impacts on local residents and wildlife in Necton wood; rejection by the Applicant of a range of proposed visual mitigation methods; and concern that it is not possible to reach a determination on the Norfolk Boreas application until the Norfolk Vanguard application has been determined and all the cumulative impacts have been fully considered.

- 4.66. The Secretary of State notes that the accuracy of the photomontages was considered in detail by the ExA and considers that the consultation responses do not introduce any new information. Similarly, the Secretary of State notes that the selection of the substation location and the requirements of the Horlock Rules were considered by the ExA and considers that the consultation responses do not introduce any new information.
- 4.67. Various consultation responses raised concerns about the limited level of design information available for the substation: the Secretary of State notes that the ExA considered this matter in detail and this is reported at paragraph 4.46 above. The Secretary of State considers that the consultation responses do not introduce any new information.
- 4.68. The Secretary of State notes the concerns about the effectiveness of mitigation raised by Interested Parties. The Secretary of State agrees with the concerns raised by Interested Parties about the challenges of designing mitigation effectively in the absence of a detailed substation design and considers that the applicant's rejection of various potential measures ahead of the completion of a detailed substation design is premature. In relation to mitigation planting, the Secretary of State agrees that a conclusion that the mitigation planting which is unlikely to be fully effective until 25 years into the operational life of the substation¹⁵ reflects an inadequate degree of mitigation and notes that the ExA considered that this timescale to be unreasonable [ER 5.3.165].
- 4.69. The Secretary of State notes the comments about the DAS, which contains the suggested steel finish and limited colour palette to which concern has been raised, the fact that the design guide referred to has yet to be written, and the scope of the design review. The Secretary of State considers that there are merits to all of these concerns.
- 4.70. The Secretary of State considers that the consultation responses submitted in response to his second consultation letter raising concerns about the effectiveness of the mitigation planting in relation to the existing Dudgeon substation do provide new information and is satisfied that the Applicant had the opportunity to respond to this as part of its response to his third consultation letter.

The Secretary of State's Conclusions

- 4.71. The Secretary of State has carefully considered the ExA's Report and the responses that have been raised to his consultations. He has indicated above where he considers that these responses raise new issues. Based on the information now in front of him the Secretary of State has reached a number of conclusions in relation to the landscape and visual impacts of the Development.

¹⁵ Applicant's Comments on IP's Representations, October 2021. ExA.ASR.D22.V1 at page 3.

- 4.72. The Secretary of State notes that the vast majority of the concerns about landscape and visual impacts related to the impacts that would arise from the construction and operation of the substations at Necton, either for the Norfolk Boreas project alone or cumulatively with the Norfolk Vanguard project.
- 4.73. The Secretary of State notes the ExA's concerns about the mitigation planting and its conclusion that it would result in significant adverse effects over a timescale the ExA considered reasonable [ER 5.3.165]. The Secretary of State has noted the concerns from Interested Parties about the limited effectiveness of the existing mitigation planting which was intended to screen the Dudgeon substation, and notes that the Applicant's response to these points did not dispute their accuracy, concluding that there could be adverse effects for up to 25 years of the Project's operational life¹⁶.
- 4.74. The Secretary of State has made a number of changes to the draft Development Consent Order (set out in detail in section 12 below) to ensure that the post-consent process ensures an effective independent design review, a robust design guide, and effective and ongoing mitigation measures to reduce the landscape and visual impacts of the Norfolk Boreas project alone and cumulatively with the Norfolk Vanguard project (if consented). In the event that the Applicant proceeds with Scenario 1 the details to be supplied in relation to the converter buildings for the substations under Requirement 16(2) must be supported by a statement illustrating how the details accord with the principles of the Onshore Project Substation Masterplan and have been informed by a strategic approach to mitigating cumulative impacts arising from the substation and the Norfolk Vanguard substation. This alteration is intended to secure the "identical twins" approach cited at paragraph 4.55 above. The details submitted must also include the outcome and recommendations from the early independent design review. In addition, the Secretary of State has decided that it would be appropriate to modify requirement 19 on aftercare for planting so that the obligation to replace dead or diseased trees, hedges or shrubs used to screen the onshore project substation will apply for the first 25 years of the Project's operational life to ensure that the adverse effects identified by the Applicant will continue to be mitigated for.
- 4.75. Despite the changes he has made, the Secretary of State is aware that the development of the substations at Necton (either of Norfolk Boreas alone or cumulatively with Norfolk Vanguard) will have significant adverse landscape and visual impacts. Furthermore, he is aware that the findings in the ExA's Report in relation to Scenario 1 were made on the assumption that Norfolk Vanguard had already obtained development consent. Given that is no longer the case, the Secretary of State has made a reassessment of the weight to be attributed to cumulative landscape and visual impacts in the event of Scenario 1 against the existing baseline at Necton and taking into account all the representations received from Interested Parties as summarised above. The Secretary of State concludes that it is appropriate to accord substantial weight against making the Order when considering the cumulative landscape and visual impacts against the existing baseline.

Onshore construction effects

- 4.76. This section covers aspects of onshore construction not covered under traffic and transportation; landscape and visual effects; noise and vibration; terrestrial biodiversity,

¹⁶ Applicant's Comments on IP's Representations, October 2021. ExA.ASR.D22.V1 at page 3.

biological environment and ecology; and water resources and flood risk. Construction-related air quality issues are covered here [ER 5.12.1].

- 4.77. The ExA was concerned the OCoCP did not cover pre-commencement work [ER 5.4.20]. The Applicant explained such works would be undertaken prior to production of the final management plans, and each such work would require a specific plan to be produced in accordance with the relevant outline management document and approved by the relevant planning authority, explained what the plans would cover, and how they are secured via requirements in the draft DCO. None of the relevant planning authorities raised concerns about their role in discharging these requirements and the ExA was content the scope of pre-commencement works and the approvals process were appropriately secured within the recommended DCO [ER 5.4.21 et seq.].

Onshore cable corridor width

- 4.78. The OCoCP specifies that the route would be up to 35m working width within a 45m wide corridor [ER 5.4.26]. The cable corridor would include a temporary haul road (“running track”), land to store topsoil and subsoil separately, up to two trenches, and temporary perimeter fencing, allowing an additional 10m for micro-siting [ER 5.4.27]. In Scenario 2 the running track would be removed when duct installation for a section was completed. In both Scenarios the running track, including any reinstated for cable pulling, would be removed once the cable has been pulled [ER 5.4.28]. No Interested Parties raised concerns about the corridor’s width [ER 5.4.29]. The ExA accepted the Applicant’s justification and is content with the arrangements [ER 5.4.29].

Cable Duct Installation Workfront Strategy

- 4.79. Construction teams would work sequentially on approximately 150m lengths of the cable corridor (“workfronts”), and backfill each after cable duct laying before the next section would be started [ER 5.4.30]. The Applicant explained flexibility would be needed where the 150m length was not the most appropriate, but works would not extend beyond two weeks duration at each location [ER 5.4.31]. The OLEMS secures the workfront details and the Applicant included the reasons for flexibility into it to clarify that although the cable duct installation strategy would apply at all times that the workfront could be longer than 150m to maintain the principle of mitigation (excavate, install, and reinstate within a 1 to 2 week period) [ER 5.4.32]. No Interested Parties raised concerns about the cable duct installation strategy, the workfront length or the flexibility sought [ER 5.4.32]. The ExA considered the Applicant’s approach would limit adverse effects to only a limited area and accepted the need for flexibility [ER 5.4.34]. The ExA was satisfied related construction effects were considered in the EIA and overall agreed with the Applicant’s suggestion that the impact of cable duct installation would not be significant [ER 5.4.35]. The ExA was satisfied the workfront strategy was appropriately secured [ER 5.4.35].

Visual effects of Mobilisation Areas (MA)

- 4.80. Mobilisation areas adjacent to the onshore cable route, accessible from the local highway network, and suitable for deliveries would be required for construction compounds and to store equipment [ER 5.4.36]. These would be a maximum of 100m x 100m alone, or 150m x 100m if combined with a trenchless crossing compound [ER 5.4.36]. The Applicant secured control measures and approval processes in the draft DCO, stating in the OCoCP that the Construction Method Statement would include site-specific control measures subject to

approval by the relevant local planning authority, and set out maximum parameters for mobilisation areas in Requirement 16(15) [ER 5.4.39]. Pre-commencement screening and site security works would be subject to approval of a specific plan under Requirement 20(4) [ER 5.4.39]. North Norfolk DC was content with the wording in the OCoCP [ER 5.4.40].

- 4.81. The ExA was satisfied the recommended DCO contained sufficient measures to ensure that the detailing of the mobilisation areas would be submitted to and approved by the relevant planning authority and that the appropriate parameters are secured in the recommended DCO [ER 5.4.40]. The ExA welcomed the additions to the recommended DCO, OCoCP and the OLEMS [ER 5.4.41].

Access arrangements and location of MA2, MA5b and MA11

- 4.82. The ExA explored concerns on three proposed mobilisation areas: access arrangements for MA2, the location of MA5b on the edge of Sparham, in particular its proximity to properties in Well Lane, and lighting and suitability of the location to 2-way HGV traffic for MA11 [ER 5.4.42 et seq.] The Applicant explained access to MA2 was agreed with Highways England [ER 5.4.42], MA5b's location was unavoidable but the assessment of adverse effects for the properties (including noise and air quality) concluded negligible adverse effects for sensitive receptors with standard mitigation [ER 5.4.44], and MA11's location was due to Norfolk CC's requirement to avoid an access in close proximity to the existing crossroads and avoid siting the mobilisation area any closer to residences to the north [ER 5.4.47]. The ExA was satisfied with the access arrangements for MA2, that the relevant planning authority would be able to control layout and mitigation at MA5b, and the justification for the location of MA11 and that the proposed mobile traffic management using pilot vehicles would adequately mitigate the effects of HGV movements and was adequately secured in the OTMP [ER 5.4.42 et seq.]. The ExA was satisfied that the Applicant's commitment to an Artificial Light Emissions Management Plan for approval by the local authorities in the final CoCP provides adequate controls for lighting levels for the construction stage [ER 5.4.49].

Open Cut Trench or Trenchless Crossing at the B1149

- 4.83. The ExA concluded that Norfolk CC's concerns were not specifically related to cumulative effects with Hornsea Project Three and included the B1149 crossing as trenchless for Scenario 2 in the recommended DCO and removed all reference to Hornsea Project Three from the recommended DCO [ER 5.4.56 et seq.].

Open Cut Trench or Trenchless Crossing at Church Road, Colby

- 4.84. North Norfolk District Council called for a trenchless crossing at Church Road, Colby, to avoid mature tree loss [ER 5.3.33]. The ExA agreed that the proposed mitigation, including micro-siting and no net loss of trees was secured through the OLEMS and was content with the drafting in the recommended DCO [ER 5.4.60 et seq.].

Effects of construction traffic on air quality in Cawston and Oulton

- 4.85. The CoCP secures construction dust and fine particulate matter mitigation measures, including minimising production and transmission of dust and the requirement for visual on and off-site inspections of dust deposition levels [ER 5.4.62]. With these measures the impacts, including cumulatively, are considered to be not significant [ER 5.4.62].

- 4.86. The Applicant's air quality assessment concluded construction vehicle exhaust emissions of NO₂, PM₁₀ and PM_{2.5} for human receptors will be below the respective Air Quality Objectives in 2024, the peak year for construction under both Scenarios both without and with the Development [ER 5.4.63], using the highest future baseline traffic flows predicted for the construction period. Despite this assessment Cawston PC was concerned the impacts on residents from diesel vehicles negotiating the village centre had not been adequately assessed [ER 5.4.65]. The Applicant stated that the air quality assessment considered two receptor locations in Cawston adjacent to the B1145 Aylsham Road, where the impact of development-generated traffic, including cumulatively with Hornsea Project Three is considered and that the pollutant concentrations without and with the Development would be well below the air quality objectives for NO₂, PM₁₀, and PM_{2.5}, and in line with World Health Organisation annual mean air quality standard, the Government's Clean Air Strategy, Institute of Air Quality Management guidance and Environmental Protection UK guidance [ER 5.4.65]. The Applicant stated that changes to traffic movement as a result of the revised HIS would not lead to the exceedance of the Air Quality Objectives or significant adverse air quality effects, and Broadland DC confirmed that air quality effects in Cawston would be acceptable [ER 5.4.66].
- 4.87. Oulton PC highlighted that Links 68 and 75 are missing from the air quality assessments and maps for both Scenarios, and Broadland DC was concerned that the air quality assessment, especially near the Old Railway Gatehouse, did not take full account of the existing baseline air quality [ER 5.4.67]. The Applicant explained that the cumulative increases in traffic on these links from the Development and Hornsea Project Three are below the Institute of Air Quality Management and Environmental Protection UK screening criteria and were therefore considered insignificant and in accordance with the guidance were not included in the air quality assessment [ER 5.4.68]. A modelling study was carried out, principally at the Old Railway Gatehouse, to determine the potential effect of queuing traffic on Link 68, which showed that air quality impacts would be negligible, in accordance with Institute of Air Quality Management and Environmental Protection UK guidance, and that pollutant concentrations would be well below the respective Objectives [ER 5.4.68]. This was agreed with Broadland DC, which confirmed that the OTMP would provide sufficient mitigation for adverse effects to air quality from construction traffic at the Street in Oulton [ER 5.4.69].
- 4.88. The ExA noted the concerns relating to construction traffic emissions at Cawston and Oulton, but also that the assessment methodology, findings and approach to mitigation were agreed by Broadland DC. The ExA concluded emissions would be in line with the respective Air Quality objectives, and construction dust and fine particulate matter would be controlled by the mitigation within the Air Quality Management Plan in the CoCP [ER 5.4.70].

Cumulative effects of construction traffic on air quality

- 4.89. The Applicant assessed the potential direct cumulative effects for Scenario 1 with Norfolk Vanguard and Hornsea Project Three and considered that there would not be significant cumulative adverse effects associated with construction dust emissions and peak construction traffic associated with the construction and decommissioning phases for both Scenarios [ER 5.4.71]. The ExA noted that cumulative construction traffic impacts on air quality in Cawston and Oulton were considered during the Examination and was satisfied with the Applicant's assessment [ER 5.4.72].

Decommissioning

- 4.90. No decision had been made on how the project would be decommissioned, but it was likely the cables would be pulled through the ducts and removed whilst the ducts would be left in situ [ER 5.4.73]. In this event the Applicant considered that there would be no significant effects for any receptor at the landfall or along the onshore cable route [ER 5.4.73]. The ExA accepted the Applicant's assessment [ER 5.4.73].

Conclusions

- 4.91. The ExA considered that matters regarding pre-commencement works, the onshore cable corridor width, the cable duct installation strategy, the mobilisation areas, the crossing at Church Road, Colby, and construction traffic effects on the air quality in Cawston and Oulton were satisfactorily resolved, and was content that the relevant mitigation is appropriately secured through the CoCP, OTMP, LMS and the Ecological Management Strategy [ER 5.4.74]. The ExA was content the policy requirements set out in NPS EN-1 and EN-3 were met, and attributed little weight against making the Order [ER 5.4.75]. The ExA also considered construction effects mentioned elsewhere in its Report (construction traffic, visual effects, noise and vibration, water resources and flood risk, land use and agriculture, and physical and mental health) [ER 5.4.77] and these are dealt with in the relevant sections of this decision letter. Taken together the ExA attributed medium weight against making the Order due to the totality of the adverse effects [ER 7.3.19]. The Secretary of State notes that other than the concerns about cumulative impacts at Oulton considered at paragraphs 4.27 and 4.28 above no other parties raised concerns relevant to this issue. For the reasons set out in paragraph 4.28 above the Secretary of State considers that the new information provided is not sufficiently detailed as to justify a departure from the conclusions of the ExA and consequently he accords medium weight against making the Order.

Noise and vibration

- 4.92. Noise effects on terrestrial and marine biodiversity and ecology and traffic and transport are considered in those sections of the Report [ER 5.5.1 and 5.5.7].
- 4.93. The ES considered potential impacts of construction, operation and decommissioning for both Scenarios [ER 5.5.5]. Construction effects during Scenario 1 include landfall, cable pulling through pre-installed ducts, construction of the onshore substation and extension to the National Grid substation, with Scenario 2 being the worst case [ER 5.5.8]. Scenario 1 has the worst operational impact due to the additional onshore infrastructure associated with Norfolk Vanguard, and the impacts of both schemes have been assessed cumulatively as they would operate simultaneously [ER 5.5.9].
- 4.94. The Applicant did not consider the extension to the National Grid substation and modifications to the overhead line within the operational noise assessment because it expected operational noise levels to be minimal as there would be no transformers on site and that this conclusion was agreed with stakeholders [ER 5.5.10].
- 4.95. The Applicant identified Noise Sensitive Receptors ("NSRs") around the landfall, cable route and substations and used them to assess noise impacts [ER 5.5.11]. NSRs around the substations would be affected by construction and ongoing operational noise and the draft DCO defines them as noise sensitive locations, with operational noise monitored to ensure compliance with agreed noise levels and require remedial measures secured through the

recommended DCO [ER 5.5.13]. The Applicant acknowledged there would be NSRs in close proximity to the landfall and the onshore cable route that are not specifically assessed within the ES [ER 5.5.25]. The NSRs in the ES are representative locations based on Table 9.1 of the OCoCP and would be used during the detailed design stage to identify other potential receptors at similar distances from the cable route where further noise assessment and enhanced mitigation measures could be required [ER 5.5.25 and 5.5.29]. The Construction Noise Management Plan would include additional NSRs and enhanced mitigation measures which would be reviewed by the relevant planning authority as part of the final CoCP [ER 5.5.25]. Broadland DC welcomed this approach [ER 5.5.25]. The ExA accepted the approach to the identification of the original NSRs and considered the identification of additional Receptors was satisfactorily captured in the OCoCP [ER 5.5.30]. The ExA welcomed the Applicant's adoption of North Norfolk DC's suggested 45dBA threshold for all residential receptors during any night-time working by revising the OCoCP [ER 5.5.27 & 5.5.31].

- 4.96. An Interested Party disagreed about operational noise from the proposed Necton substation, challenging the baseline noise survey and its duration at Necton [ER 5.5.33 et seq.]. The Applicant explained that human receptors, which have medium sensitivity and limited tolerance of effect, were used, whereas agricultural land between the substation and the receptor had negligible sensitivity and the noise was not expected to be detrimental to it [ER 5.5.35]. Requirement 27 secured that the operational noise rating for the substation must not exceed 35dB at any time adjacent to a NSR, and this could be achieved with noise reduction technology and low noise emitting equipment, and was revised so that the Applicant would confirm completion of the works and provide details of any remedial works and a programme of implementation should the noise emissions exceed the 35dB level [ER 5.5.38 et seq.]. The ExA considered the baseline noise survey was adequate and agreed by the local authorities at the Expert Technical Group, noted Breckland Council was content [ER 5.5.34], that the relevant British Standard was followed to determine the baseline, that the location of the specific NSR under consideration was based on the closest, high sensitivity, human receptor rather than low sensitivity agricultural land, and agreed with the location chosen [ER 5.5.43]. The ExA had seen no evidence to challenge Breckland Council's expertise or to convincingly challenge the arguments put forward by the Applicant or its agreement with Breckland Council [ER 5.5.44].
- 4.97. Embedded mitigation for noise and vibration includes adherence to the Best Available Techniques for operation and onshore infrastructure, and maintenance of the onshore project substation to minimise noise, including routine checks and maintenance [ER 5.5.16]. The Construction Noise Management Plan would provide standard mitigation for adverse construction noise, and forms part of the CoCP [ER 5.5.17], and would include standard mitigation practices and good practice construction management, and is secured through recommended DCO Requirement 20(2)(e) and listed in the Schedule of Mitigation [ER 5.5.17]. Enhanced mitigation measures at specific NSRs would be part of the Construction Noise Management Plan and would include measures from the Schedule of Mitigation such as localised screening, temporary noise barriers and construction plant selection [ER 5.5.18]. Enhanced construction traffic noise mitigation would be implemented through the Traffic Management Plan [ER 5.5.19]. Enhanced operational noise mitigation, ensuring noise emissions do not exceed the limits on the existing Dudgeon offshore wind farm ("Dudgeon") substation are secured in the recommended DCO which specifies maximum noise levels [ER 5.5.20].
- 4.98. Broadland DC was concerned about the potential cumulative adverse effects of construction traffic associated with the Norfolk Vanguard and Hornsea Project Three on Oulton and

Cawston, which have been considered above [ER 5.5.21]. North Norfolk DC considered that the CoCP and Requirement 26 on construction hours in the draft DCO would provide an effective way to minimise adverse impacts during the construction phase [ER 5.5.21].

- 4.99. The ExA was reassured by the Scenario 1 worst case assumptions and accepted the Applicant's assertions that the noise threshold limit is achievable, was convinced with the commitments made in Requirement 27 [ER 5.5.45], and was content that any residual effects would be dealt with through a combination of Requirement 27 and the OCoCP [ER 5.5.46].
- 4.100. The decommissioning worst case was similar to construction, but the methodology would need to be agreed with relevant authorities and may need separate licensing and consenting. The ExA accepted the Applicant's assessment [ER 5.5.47].
- 4.101. Noise and vibration impacts were assessed cumulatively with Norfolk Vanguard (for Scenario 1 only), Hornsea Project Three, and Dudgeon [ER 5.5.48]. The Applicant identified Scenario 1 as the worst case, but considered noise levels at each NSR for the Development, and cumulatively with Norfolk Vanguard, complied with the British Standard. The ExA agreed that cumulative effects were appropriately assessed and the effects were not significant in EIA terms. The ExA was content that cumulative effects during the operational phase were integral to the ES's assessment and that the proposed mitigation was secured through Requirement 27 of the recommended DCO [ER 5.5.49].
- 4.102. The ExA agreed with the changes made to the definition and location of NSRs in the OCoCP. The ExA concluded that, subject to the changes in the recommended DCO, that the Development complies with paragraph 5.11.6 of Overarching NPS for Energy (EN-1) [ER 5.5.51]. The ExA was content that the measures in the CoCP and Requirement 27 (operational noise) would minimise onshore noise and vibration effects [ER 5.5.52].
- 4.103. The ExA noted unresolved matters between the Applicant and Interested Parties in relation to construction traffic noise and has taken the inter-related and cumulative adverse effects of construction and operational noise at Necton, Cawston, Oulton, North Walsham and Happisburgh, which will affect the day to day life of residents and businesses in a significant way, into consideration in section 5.22 of its report, Cumulative Effects and Inter-Relationships [ER 5.5.52]. The Secretary of State has adopted the same approach.

Post-examination consultation and the Secretary of State's conclusions

- 4.104. Several parties raised concerns about cumulative operational noise impacts from the Necton substation, whether the Dudgeon substation should be included in the cumulative impacts assessment, the way in which the noise impacts were assessed, and the noise thresholds being set for the operation of the substation. Cawston Parish Council also raised concerns about cumulative impacts which, for the reasons set out in paragraph 4.27 above, the Secretary of State is treating as relating to the construction impacts. The Secretary of State has considered the points raised alongside the ExA's Reporting of these issues and considers that, whilst clearly reflecting the concerns of local residents, the representations have not provided new environmental information which needs to be taken into consideration.
- 4.105. Overall, the ExA considered noise and vibration impacts raised little weight against making the Order [ER 5.5.52 and 7.3.22]. The Secretary of State agrees noise receptors have been appropriately identified, necessary measures will be secured to mitigate and remedy any

potential noise impacts, and the scheme, considered alone and cumulatively, is acceptable in noise and vibration terms. The Secretary of State agrees with the weight attributed by the ExA.

Terrestrial biodiversity, biological environment, and ecology

- 4.106. The Overarching NPS for Energy (EN-1) provides the primary basis for decision making in relation to onshore ecology. The policy tests for biodiversity and geological conservation are given in NPS EN-1 Section 5.3 [ER 5.6.4].
- 4.107. The ES assessed the impacts of the Development on terrestrial floral and faunal species, and statutory and non-statutory designated conservation sites.
- 4.108. The assessment of impacts considered the scheme with embedded mitigation measures, which are those measures secured through the design of the Development to avoid or reduce environmental impacts. Where impacts on ecology and biodiversity remain, additional measures were included to mitigate for specific impacts, these included: sediment management and pollution prevention measures for the trenchless crossings of the River Wensum Site of Special Scientific Interest (“SSSI”) and Wendling Beck; mitigation for hedgerows and barbastelle bats around Paston Great Barn SSSI/ Special Area of Conservation (“SAC”); and botanical surveys and clearance of pioneer woodland species at Wendling Carr County Wildlife Site [ER 5.6.19 et seq.].
- 4.109. For protected species, additional mitigation included reinstatement of pond habitats lost during construction; relocation of active badger setts; pre-construction water vole surveys, water vole displacement, and the reinstatement of water vole habitat; controls on night working to minimise indirect effects on otters; pre-construction surveys and precautionary methods of working to avoid harming great crested newts and reptiles; pre-construction surveys at Reepham Stream and Booton Watercourse for bullhead and brown trout; an Invasive Species Management Plan; and bat-friendly lighting.
- 4.110. Specific mitigation measures for onshore ornithology include reducing disturbance to waterfowl in winter; removing vegetation prior to the bird breeding seasons; reinstatement of habitats following construction; and minimising operational lighting [ER 5. 6. 24 et seq.].
- 4.111. For Scenario 1, residual impacts for onshore receptors were predicted to be no greater than minor adverse. For Scenario 2, residual moderate adverse impacts were predicted for hedgerows and bats; however, these were considered temporary and would ameliorate as the post-construction landscaping matures. For all other receptors, the residual impacts were predicted to be no greater than minor adverse at an EIA scale.

Post-examination consultation

- 4.112. After the close of the Examination, the Secretary of State was informed that the cable corridor would pass through a Natural England (“NE”) Nature Recovery Project (“NRP”) at Dillington Hall and that work on the Project would commence well before the cable route construction¹⁷. In the consultation letter of 22 September 2021, the Applicant and NE were asked to provide information on any implications this may have for the Application and to state whether the

¹⁷ https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002865-Post%20Recommendation%20Submission%20-%20Dillington%20Hall%20Estate_Redacted.pdf

conclusions of the EIA remain valid. The Applicant explained that the draft DCO and outline documents to be certified contain commitments to ensure that the habitats present ahead of construction are fully considered and that mitigation and reinstatement is agreed based on those pre-construction conditions, in consultation with NE and affected landowners and that consequently no further commitments specifically relating to the NRP need to be secured¹⁸. NE confirmed that the NRP had been aware of the proposed cable route since its conception and had incorporated this into the design of the project; the acceleration of the delivery of the project meant that the landowners and NE will need to work closely with the Applicant to ensure that this accelerated program and associated change in the underlying land use is fully considered in the construction, but NE was confident that the Outline Code of Construction Practice and the Outline Landscape Environmental Management Scheme should be sufficient to ensure that necessary mitigation is consulted upon and approved prior to the works¹⁹.

Conclusions

- 4.113. The ExA concluded that the Applicant had complied with the requirements of NPS EN-1 and EN-3 as the Development avoided significant harm to biodiversity and had considered reasonable alternatives.
- 4.114. There would be no adverse effects on any SSSI, and species and habitats that receive statutory protection or are of Principal Importance for the conservation of biodiversity will be protected from the adverse effects of development through the requirements in the recommended DCO [ER 5. 6. 76 et seq.].
- 4.115. The ExA concluded that no weight should be given in respect of terrestrial biodiversity, biological environment, and ecology for or against the Order being made [ER 5.6.77 et seq. and 7.3.25]. The Secretary of State has considered the information about the NRP and considers that it does not affect the conclusions reached by the ExA. He agrees with the ExA's conclusions on terrestrial biodiversity, biological environment, and ecology and gives no weight to them in the planning balance.

Water resources and flood risk

- 4.116. Embedded mitigation includes the use of SuDS including attenuation of surface water runoff at the proposed onshore substations for both Scenarios, sediment management during the onshore cable route construction, trenchless crossings at major watercourses under Scenario 2 [ER 5.7.12]. Embedded mitigation for ground conditions includes sectionalised duct installation along the onshore cable [ER 5.7.13].
- 4.117. The worst case impacts of multiple permanent culverts as part of open-cut watercourse crossings within certain sub-catchments, and increased sediment from duct installation and watercourse crossing were moderate adverse after mitigation and therefore significant [ER 5.7.20]. Under Requirement 25 of the draft DCO site specific watercourse crossing plans will

18 <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002895-SoS%20Deadline%20-%20Applicant%20-%20The%20Applicant's%20Response%20to%20Request%20for%20Further%20Information.pdf>

19 <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002883-SoS%20Deadline%20-%20Natural%20England.pdf>

be produced and agreed with the relevant authority post-consent to mitigate the effects, including direct disturbance of water bodies and increased sediment supply [ER 5.7.19].

- 4.118. Residual potential impacts from construction disturbance of potentially contaminated land were no worse than minor adverse and therefore not significant in EIA terms after additional mitigation, secured as part of the Contaminated Land and Groundwater Plan and Site and Excavated Waste Management Plan which are daughter plans to the CoCP [ER 5.7.15]. In either Scenario the potential effects on the groundwater aquifer from disturbance of contamination, trenchless crossing techniques or piling were moderate to major adverse before mitigation, but after additional mitigation measures secured by draft DCO Requirement 20 the residual effects on Source Protection Zones were minor adverse [ER 5.7.16]. The OCoCP requires ground excavation works in Source Protection Zones to minimise groundwater disturbance using Best Available Techniques in accordance with the Energy Network Engineering Recommendations [ER 5.7.18]. Potential localised contaminated land, primarily railway land and the site of the 1996 Danish Air Force F-16 crash, was assessed as minor adverse after mitigation and therefore not significant [ER 5.7.21]. The ExA considered issues relating to the F-16 crash site to be resolved [ER 5.7.63 et seq.].
- 4.119. Additional mitigation, based upon the Environment Agency's ("EA") Pollution Prevention guidance, will be agreed post consent and is secured within the CoCP and includes daughter plans: Contaminated Land and Groundwater Plan, Construction Surface Water and Drainage Plan, Site and Excavated Waste Management Plan, and Materials Management Plan [ER 5.7.17].
- 4.120. The Applicant's trenchless crossing Clarification Note explained that site-specific measures to contain potential impacts of a bentonite breakout would be detailed in a contingency plan in the final, post-consent, CoCP [ER 5.7.46]. NE was satisfied with the detail in the Clarification Note and Method Statement and a significant effect on the River Wensum from HDD breakout would be unlikely following the mitigation [ER 5.7.46]. The EA was satisfied trenchless crossings could be undertaken without contamination to water resources [ER 5.7.47], their locations are appropriate, that details would be agreed at each location post-consent and that Requirement 20 of the draft DCO secures a breakout contingency plan to be included in the Code of Construction Practice [ER 5.7.49]. The ExA was satisfied adequate mitigation of potential adverse effects of trenchless crossing construction on the water environment is secured and the potential adverse effects of a bentonite breakout would not prevent the Order being made [ER 5.7.50].

Effects of multiple permanent culverts for open-cut watercourse crossings

- 4.121. Permanent culverts would only be needed where temporary crossing techniques for watercourses 1.5m or deeper were not possible. Individual trenched crossing would not result in significant effects, and the ES considered a worst case of multiple permanent culverts within a river basin sub-catchment [ER 5.7.52]. The EA expects refined site-specific models to be provided for each crossing and expects the Applicant to demonstrate in each case why culverting is necessary and the only reasonable and practicable alternative, and additional mitigation and compensation for ecological impacts would be required and the Applicant confirmed this was secured in the OCoCP [ER 5.7.53 et seq.]. The EA confirmed the post-consent approval process would provide appropriate control for each stage of the works, agreed the wording of the OCoCP, and considered that development of the CoCP

and the Construction Surface Water and Drainage Plan post-consent provided appropriate mitigation of sensitive water bodies [ER 5.7.55 et seq.].

- 4.122. The ExA was satisfied the mitigation was satisfactorily secured through Requirements 20 and 25 of the recommended DCO and in the OCoCP [ER 5.7.56]. The ExA accepted the worst case scenario is conservative and was content significant residual adverse effects are unlikely [ER 5.7.57]. The ExA noted the assessment of moderate adverse effects and that for Scenario 2 there was no disagreement regarding sediment supply [ER 5.7.58].

Effects of construction on surface water fed by groundwater

- 4.123. Potential impacts under both Scenarios are expected to be negligible to minor adverse but not significant in EIA terms [ER 5.7.59]. The Applicant has submitted a preliminary Conceptual Site Model which identifies potential contamination sources, pathways, receptors, and effects, but specific mitigation measures would be developed for each site following ground investigations [ER 5.7.59]. The EA confirmed the post-consent approval of development and the CoCP would provide appropriate control for each stage of the works [ER 5.7.61]. The EA welcomed the commitment to further investigation and development of site-specific conceptual models post-consent and required that it reviews and comments on the models prior to construction to clarify the potential impacts on controlled waters and the proposed mitigation measures [ER 5.7.61]. The ExA was satisfied with the mitigation secured through the recommended DCO and the OCoCP [ER 5.7.62].

Field drainage at substation sites

- 4.124. A Construction Surface Water and Drainage Plan will be developed and agreed with the relevant drainage authorities post-consent to ensure the continuity of drainage of surrounding land and secure post-construction reinstatement of existing drains, and is secured via the OCoCP [ER 5.7.65]. The National Farmers Union (“NFU”)/Land Interest Group (“LIG”) agreed the wording was suitable and that its Statement of Common Ground would be an Appendix to the voluntary Deed of Easement with the landowners [ER 5.7.66]. The ExA was satisfied this is secured by Requirement 20 of the recommended DCO [ER 5.7.66].

Sustainable Drainage Strategies (SuDS)

- 4.125. The Outline Operational Drainage Plan commits to develop a drainage strategy according to the SuDS discharge hierarchy and to develop a maintenance and management plan within the final Operational Drainage Plan detailing the activities required and the responsibilities for adopting and maintaining all surface water drainage features for the lifetime of the Development [ER 5.7.67]. The DAS was updated to provide further reference to operational drainage design and it and the OLEMS cross-reference the Operational Drainage Plan and reference the SuDS requirements [ER 5.7.68]. Norfolk CC agreed Requirement 32 provided appropriate and adequate security for the Operational Drainage Plan to be developed in consultation with it according to the principles of the Outline Operational Drainage Plan [ER 5.7.68]. The ExA was satisfied that SuDS have been given appropriate attention and suitable drainage strategies would be applied and suitable security provided in the draft DCO [ER 5.7.68].

Surface water run-off attenuation at substation sites in relation to climate change

4.126. An Interested Party submitted photographic evidence of concerns about flood risk downhill from the substations in relation to discharge from surface water attenuation ponds [ER 5.7.69]. The Applicant explained the post-consent Operational Drainage Plan (to be approved by the local planning authority after consultation with the EA and Norfolk CC) would define site-specific measures for surface water discharge, and that the OCoCP referred to a post-consent Flood Warning and Evacuation Plan to be produced as part of the Environmental Emergency/Incident and Response Plan [ER 5.7.70]. The EA confirmed that if the development is decommissioned before 2070 the correct allowance was made for climate change above that required for a 1-in-100 year storm event [ER 5.7.71]. The ExA was satisfied the issue was resolved [ER 5.7.72].

Effects of surface water drainage and flood risk during construction

4.127. The NFU/LIG raised a concern about potential increases in surface water run-off from the haul road or construction compounds [ER 5.7.73]. The Applicant explained that a Surface Water and Drainage Plan would be agreed with regulators, based on information about the existing land drainage arrangement gathered from landowners. [ER 5.7.74]. Through its Statement of Common Ground the NFU/LIG agreed additional wording in the OCoCP securing liaison via an Agricultural Liaison Officer prior to any discharge to existing drains [ER 5.7.74]. The ExA was satisfied the issue was resolved and the recommended DCO secures the development of the Surface Water and Drainage Plan through the OCoCP [ER 5.7.74].

Proposed disapplication of secondary consents in relation to land drainage

4.128. The draft DCO would in effect disapply some provisions in the Water Resources Act 1991 and certain byelaws under the Land Drainage Act 1991. The Applicant reaffirmed that the draft DCO provides for approval of detailed plans for drainage and works to watercourses by the EA and relevant drainage authorities and provides security for prior approval of any works to a designated main river or ordinary watercourse crossing by the relevant planning authority in consultation with Norfolk CC, the EA, NE, and the relevant drainage authority [ER 5.7.77 et seq.]. The Water Management Alliance (the Norfolk Rivers Internal Drainage Board and the Broads (2006) Internal Drainage Board) was satisfied with the proposed disapplication of the legislation, subject to wording added to the Protective Provisions [ER 5.7.81]. The EA agreed the Protective Provisions were suitable, and the ExA was satisfied that the recommended DCO and specific plans under it secure the ability of the relevant drainage authorities to control works to watercourses [ER 5.7.82].

Water Framework Directive Assessment

4.129. The Development lies within the Anglian River Basin District: River Basin Management Plan (2015) [ER 5.7.23]. The EA agreed the Assessment's conclusions were appropriate and the requirement to deliver the CoCP in consultation with the EA was an appropriate level of pollution control [ER 5.7.90]. The ExA was satisfied the Development meets the requirements of the Water Framework Directive and had appropriate regard to the relevant River Basin Management Plan [ER 5.7.90]. No Interested Party disagreed with the Applicant's Assessment that after control measures are applied at the construction stage that activities would not cause deterioration in the status of any river waterbodies or prevent the Water Framework Directive objectives being achieved alone or cumulatively [ER 5.7.93].

Flood Risk Assessment

- 4.130. The onshore substations, landfall, and construction mobilisation areas lie within Flood Zone 1, with low fluvial or surface water flood risk, and the Applicant concluded this 'Essential Infrastructure' is acceptable under the Sequential Test [ER 5.7.27]. The onshore cable route is primarily in Flood Zone 1, with a small number of locations in Flood Zones 2 and 3 associated with watercourse crossings or topographically low-lying areas [ER 5.7.28]. Norfolk CC (the Lead Local Flood Authority) had no concerns about the potential increase to the baseline flood risk [ER 5.7.83]. The EA (as Flood Risk Management Authority with a general supervisory duty on flood risks) had no concerns and considered the Applicant had had due regard to appropriate legislation, planning policy and guidance, and that the OCoCP and daughter documents are appropriate and adequate to manage flood risk [ER 5.7.83].
- 4.131. The ExA considered the Sequential and Exemption Tests were satisfactorily passed [ER 5.7.84 et seq.]. The EA, Norfolk CC, and Anglian Water Services Limited agreed the ES adequately characterises the baseline environment in terms of water resources and flood risk, and the mitigation for managing flood risk is appropriate and adequate [ER 5.7.87]. The Internal Drainage Boards raised no objections to the Applicant's conclusions in respect of impacts on flood risk [ER 5.7.87]. The ExA was satisfied a sequential test had located the most vulnerable uses to areas of lowest flood risk, and that there may be some case where no reasonable alternative previously developed sites exist for trenchless crossing works compounds [ER 5.7.84]. Considering whether such works compounds met the requirements of the exception test for construction lying within Flood Zones 2 or 3 the ExA considered the Development would deliver wider sustainability benefits to the community which outweighed the flood risk, complying with the requirements of Overarching NPS for Energy (EN-1) (Para 5.7.17) that temporary compounds would be removed and returned to their former state, and the nature and degree of increased flood risk would be limited and could be mitigated to an acceptable level [ER 5.7.85]. The ExA considered the flood risk for temporary trenchless crossing construction compounds located in Flood Zones 2 or 3 was not a factor to weigh against making the Order [ER 5.7.88]. The Secretary of agrees with the ExA's conclusions.

Inter-related effects and interactions

- 4.132. Potential effects to designated surface waters could impact on ecological receptors they supported, and potential effects on ground conditions could affect groundwater and hydrologically connected surface waters [ER 5.7.29]. There is the potential for effects to interact, leading to synergistic impacts during construction due to direct disturbance of water bodies interacting with increased sediment supply, accidental release of pollutants or changes in surface water drainage and flood risk, and during the operation of the substation for sediments interacting with increased surface water run-off and changes to groundwater flows or flood risk [ER 5.7.30].

Potential cumulative impacts and effects

- 4.133. The ES concluded that cumulative residual effects on ground conditions in combination with Hornsea Project Three would be limited to a negligible magnitude [ER 5.7.31]. The ES concluded there were potential minor to moderate adverse cumulative residual effects during construction under Scenario 2, including direct disturbance to surface watercourses in the Blackwater Drain, River Bure, and River Wensum sub-catchments where Norfolk Boreas Scenario 2 and Hornsea Project Three are proposed to take place on a worst case assumption of multiple culverted crossings, whilst the impact of individual crossings would

not result in significant effects [ER 5.7.32]. There is a potential of increased sediment supply leading to minor to moderate adverse cumulative residual effect in these watercourses [ER 5.7.33]. Cumulative impacts of Scenario 1 on ground conditions and contamination during construction with Norfolk Vanguard and Hornsea Project Three were assessed as negligible after mitigation [ER 5.7.35]. The EA agreed with the ES's conclusion that cumulative residual effects would be non-significant in EIA terms for both Scenarios [ER 5.7.92].

Decommissioning

4.134. The Applicant proposed carrying out a full EIA in line with policy and legislative requirements and industry best practice at the time, and a decommissioning plan would be provided and agreed with the regulator [ER 5.7.37]. Decommissioning is expected to last 24 to 30 months, with cables likely to be removed from the ducts and recycled, whilst jointing pits and ducts would be sealed and left in situ [ER 5.7.36]. The cumulative impacts on ground conditions and contamination are assumed to be the same as the construction stage [ER 5.7.37].

Post-examination consultation

4.135. The Secretary of State received responses from a number of interested parties highlighting concerns that the substation construction would increase flood risk at Ivy Todd when the impacts of Norfolk Vanguard, Norfolk Boreas and Dudgeon are taken together; that water run-off at the substation needs re-evaluating; the potential impacts of construction on field drains both at the substation site and along the cable corridor, including potential surface water runoff may lead to flooding on roads; lack of coordination of discharges from the Norfolk Boreas and Dudgeon substation attenuation ponds; and the concerns of local residents of damage to their properties from flood water.

4.136. The Secretary of State notes that the ExA has considered the Construction Surface Water and Drainage Plan to be developed to ensure the continuity of drainage around the substation under Requirement 20(2)(i) and is confident that this will address the issues of field drainage both at the substation and the along the cable corridor (see paragraph 4.124 above). The Secretary of State notes that the issue of flooding from the substation has been considered by the ExA (see paragraph 4.126 above) and, whilst acknowledging the concerns of the local residents, does not consider that the consultation responses raise any new environmental information.

Post-examination changes to the National Planning Policy Framework

4.137. In July 2021 the NPPF was updated and the policy in relation to flood risk set out from paragraph 159 was modified. The key change of relevance to the Development is the requirement that flood risk from all sources of flooding must be taken into account, set out in paragraph 161. The Secretary of State has reviewed this requirement against the requirement in paragraph 5.7.3 of Overarching National Policy Statement for Energy (EN-1) and notes that this already contains a requirement to take into account flood risk from all sources. Consequently, the Secretary of State is satisfied that the ExA's conclusion that the flood risk assessment complies with the requirements of EN-1 already covers this requirement and that consequently there was no need to undertake consultation in relation to this policy change.

Conclusions

4.138. The ExA was satisfied that relevant authorities had no remaining concerns about the ability to adequately regulate releases of pollutants into the ground and water environment, the application was supported by an appropriate Flood Risk Assessment, the Sequential and Exception tests were satisfactorily applied and passed, and where the Development lies in flood risk areas it would be appropriately flood resilient and resistant [ER 5.7.94]. The ExA was satisfied the requirements of Overarching NPS for Energy (EN-1) and NPS for Electricity Networks Infrastructure (EN-5) have been met [ER 5.7.94]. The ExA concluded that ground conditions and contamination and drainage and flood matters should not carry weight against the Order being made [ER 5.7.95 et seq.]. After mitigation residual adverse effects from the worst case open-cut water crossings in Scenario 2 alone and cumulatively with Hornsea Project Three were moderate adverse, and this should carry little weight against the Order being made [ER 5.7.97]. The ExA noted that significant adverse residual effects due to increased sediment supply to the water environment are likely under Scenario 2 due to multiple construction activities alone and cumulatively with Hornsea Project Three but this should carry little weight against making the Order [ER 5.7.98]. Ground conditions and contamination and drainage and flood risk matters do not weigh against the Order being made, and significant adverse effects on water resources have little weight against making the Order [ER 7.3.27]. Having considered the ExA's Report and the post-examination consultation the Secretary of State agrees with the ExA's recommendation.

Socio-economic factors

Economic

4.139. Breckland Council's LIR identified opportunities for maximising the economic benefits including apprenticeships, internships, local employment, construction jobs, and operation and maintenance requirements throughout the Development's lifetime, and recommended a Local Liaison Group [ER 5.8.16]. Norfolk CC welcomed the Skills and Employment Strategy under Scenario 2 secured in the draft DCO [ER 8.9.19], and was content with the high level principles in the Outline version of the document [ER 5.8.22]. This would be developed by Norfolk Vanguard in Scenario 1 on behalf of both projects, and the Development in Scenario 2, requiring Norfolk CC to approve it following consultation with North Norfolk DC, Broadland DC, Breckland Council, and the New Anglia Local Enterprise Partnership prior to commencement of any stage of the transmission network [ER 5.8.24]. The ExA modified the draft DCO to secure the Outline Skills and Employment Strategy if the Development commences before Norfolk Vanguard [ER 5.8.26]. The ExA welcomed the inclusion of the Outline Skills and Employment Strategy and encouraged Norfolk CC and the Applicant to continue working collaboratively to ensure that the final Skills and Employment Strategy is robust and maximises the benefits for the local economy [ER 5.8.103].

4.140. The New Anglia Local Enterprise Partnership region considered that workers would be travelling from Norfolk and Suffolk to work on the Development and anticipated an increase in direct employment of 2.83% for Scenario 1 and 3.21% for Scenario 2 [ER 5.8.23]. The increase in indirect employment was assessed as 0.59% for Scenario 1 and 0.72% for Scenario 2 [ER 5.8.24].

4.141. The ExA recognised the compelling case for new electricity generation infrastructure from renewable sources, and accepted the Development delivered direct and indirect social

benefits [ER 5.8.29]. The Development would deliver the policy requirements of EN-1 (Paras 5.12.6 to 8), and the ExA accorded great weight to making the Order [ER 5.8.104].

- 4.142. Embedded mitigation for tourism includes undergrounding the cable system, considering tourism and recreation receptors as part of the constraints mapping exercise, site selection, limited onshore project substation lighting, and ongoing stakeholder engagement [ER 5.8.13]. Construction effects would be mitigated through the CoCP and the Traffic Management Plan, and after mitigation the Applicant concluded residual effects ranged from no effect to minor adverse during construction and operation under both Scenarios [ER 5.8.30].
- 4.143. North Norfolk DC, where tourism represents 29% of the total employment, was concerned that the impacts, particularly the cable route through Happisburgh and North Walsham which are attractive to tourists throughout the year, were being downplayed, and had significant concerns about direct impacts and negative perceptions during construction [ER 5.8.17 and 5.8.31]. North Norfolk DC's proposed mitigation included compensation to local tourism and associated businesses affected by the Development and marketing activity to combat negative perception and assist with generating tourist footfall and spend [ER 5.8.17]. Some Interested Parties expressed concerns about short-term disruption of the footpaths around Happisburgh beach and cliff areas and the potential effects on holiday lets [ER 5.8.31]. The Applicant reiterated that using HDD at the landfall would retain beach access during construction, the beach car park at Happisburgh South would be avoided, the adverse effects from construction would be temporary and reversed once construction was complete, and residual effects during construction would not be significant [ER 5.8.32]. After reviewing North Norfolk DC's evidence, the ExA concluded there was no evidence of actual or perceived adverse effects on tourism, and noted the Council accepted the long-term effects of the cable route on tourism would be benign [ER 5.8.36]. The ExA considered the assessment of construction impacts was convincing, and the request for compensation was not justifiable due to the lack of evidence and did not meet the tests set out in EN-1 (Paras 4.1.7 and 8) [ER 5.8.37].
- 4.144. Impacts on community infrastructure would be minor adverse or negligible in both scenarios [ER 5.8.39]. The Applicant stated that any community compensation would be independent of and without prejudice to the DCO process, and it would develop a voluntary community benefit fund with the aim of acknowledging communities hosting the project, and Norfolk County Council was satisfied with this proposal [ER 5.8.40]. The ExA agreed addressing community benefits was a matter for separate consideration from the DCO, was not secured in the DCO, and gave no weight to it [ER 5.8.41].
- 4.145. The ExA concluded the ES complied with EN-1 (Para 4.12.3) [ER 5.8.103]. Construction effects would be temporary and after embedded mitigation residual effects on the local economy, community infrastructure and tourism would not be significant [ER 5.8.103]. The ExA attributes substantial weight in favour of making the Order [ER 7.3.28].

Land use and agriculture

- 4.146. Embedded mitigation included minimising land take, aligning with field boundaries, avoiding Best and Most Versatile land, providing attenuation ponds at the substations, and selecting a cable burial depth that minimised the impact and interaction with drainage [ER 5.8.14]. Relevant Representations raised effects on farming activities, cumulative effects at the cable crossing, link boxes, soil, private water supplies, the draft DCO articles relating to accessing

land to survey or investigate, and the notice period for taking possession of the land [ER 5.8.44].

- 4.147. The Applicant proposed, via the OCoCP and agreement with the NFU/LIG, to appoint an Agricultural Liaison Officer (“ALO”) as the sole point of contact during construction and operation [ER 5.8.47]. The NFU/LIG were unable to agree how to secure authority to survey land (governed by Article 16 of the draft DCO) [ER 5.8.48]. The Applicant considered the ALO role would cover this, and added wording to the description of the role which largely covered the NFU’s concerns [ER 5.8.49 et seq.].
- 4.148. The NFU requested additional draft DCO wording to require notices to indicate the nature of the survey and investigation, the type of equipment to be used and an estimate of the time the surveys would take [ER 5.8.50]. The ExA considered the request was reasonable as surveying could affect the way the land could be used and landowners would need to make prior preparations, and added the wording requested by the NFU [ER 5.8.54]. The ExA noted that the effectiveness of the ALO in responding to landowner concerns would depend on how the role is developed post-consent, but was satisfied that the OCoCP adequately secured its role as mitigation [ER 5.8.81]. The ExA considered evidence from the Applicant and the NFU/LIG about the notice period for temporary use of land, and concluded that 28 days was appropriate because farmers may need to undertake activities prior to such temporary use and it was reasonable for the notice period to reflect the potential businesses needs to make practical arrangements prior to such entry [ER 5.8.60].
- 4.149. The NFU/LIG were concerned about cumulative effects at the cable crossing point, particularly during construction due to the extent of the land-take, and considered the most thermally efficient option for the crossing cables must be adopted [ER 5.8.64]. Other Interested Parties expressed concern about how the cables might interact electrically, thermally, and physically, and the geographical extent of the crossing, which would depend on Hornsea Project Three’s choice of High Voltage Alternating Current (“HVAC”) or HVDC transmission [ER 5.8.65]. In their Statement of Common Ground the NFU/LIG and the Applicant agreed the most thermally efficient and least disruptive crossing method would be implemented [ER 5.8.66]. The Applicant stated that enhanced thermal conductivity backfill would be used where the first project to install cables used the open trench method [ER 5.8.67]. The Applicant explained that a confidential draft Co-operation Agreement with Ørsted, which was not shared with the Examination, includes construction management, and the final Statement of Common Ground with Ørsted set out matters to be covered in the Agreement, including that installation works would be designed to ensure other parties could install their cables [ER 5.8.67]. Protective Provisions in the recommended DCO were agreed between the Applicant and Ørsted in relation to reasonable endeavours to cooperate and provide assistance, including liaising over up-to-date information regarding the position of any apparatus at the crossing point, and the Applicant explained these were reciprocated in the then draft Hornsea Project Three DCO [ER 5.8.69].
- 4.150. The ExA was satisfied the matters raised by the NFU/LIG were secured as far as reasonably possible in the final OCoCP and noted the parties accepted the need for further iteration of the working methods which could not be resolved until the HVAC/HVDC decision has been made for Hornsea Project Three [ER 5.6.70]. The ExA noted that land take varies according to this decision and was satisfied the additions to the OCoCP, the Protective Provisions in the recommended DCO, and the outline content for the cooperation agreement between the Applicant and Ørsted achieve the aims of minimising the disruption of agriculture, and that the ALO would provide a mechanism for keeping land take to a minimum [ER 5.8.71].

- 4.151. The Applicant inserted refined wording about consultation and a general specification to locate link boxes within two metres of field boundaries to avoid interfering with agricultural operations or presenting a hazard to farm machinery into the DAS, reflecting the final form of the Deed of Easement [ER 5.8.73 & 74]. The final NFU/LIG Statement of Common Ground stated the matter was resolved and the ExA was satisfied with the DAS' provisions [ER 5.8.75].
- 4.152. The Applicant and the NFU/LIG disagreed about how to resolve potential impacts on private water supplies [ER 5.8.82 et seq.]. The ExA noted the Applicant's commitment to meet the reasonable cost of installing an alternative supply if it is viable to do so. The ExA considered the ALO would have an important role in encouraging diligent efforts, but it was reasonable to anticipate occasions when an alternative supply was not deliverable and agreed that the landowner or occupier could seek recompense for loss according to the Compensation Code, and the ExA was content with the drafting proposed by the Applicant in the OCoCP and included it in the recommended DCO.
- 4.153. The ExA considered there would be an adverse effect on agricultural and farming practices and private water supplies due to the construction of the cable corridor, the placement of link boxes, the conducting of surveys and investigations, and the temporary use of land, but concluded the proposed mitigation would adequately address the adverse effects [ER 5.8.105]. The Development met the requirements of EN-1 (Paras 5.10.5, 6 and 8), and the mitigation would meet the policy requirements of EN-1 (Para 5.10.5) and was secured in the Soils Management Plan and the OCoCP [ER 5.8.105]. The ExA was satisfied with the general principal embedded in the OCoCP in relation to the Hornsea Project Three cable crossing which would be detailed post-consent, and gave little weight against making the Order [ER 5.8.105 and 7.3.28].

Post-examination consultation

- 4.154. A response to the Secretary of State's consultation letter of 22 September 2021 highlighted concerns about ongoing impacts of cabling work for the Dudgeon wind farm, explaining that work is still being carried out to rectify damage caused to land by this development, with an ongoing detrimental effect on food produce in the area. The Secretary of State has considered this point but considers that it does not give rise to new environmental information.

Electro-magnetic fields

- 4.155. Some Interested Parties raised concerns about the health risks of electromagnetic field exposure and magnetic field effects at the cable crossing point [ER 5.8.89]. The Applicant highlighted that routing the onshore cable route largely through agricultural land and away from population centres and sensitive receptors reduced the total number of receptors [ER 5.8.90]. The Applicant explained that electromagnetic field exposure from HVAC and HVDC is subject to UK Regulations and guidelines in EN-5, and that levels from the buried cables would be approximately 1% of the value identified by Public Health England's guidelines above which there is the potential for human health effects and on this basis there would be no effect to health under either Scenario [ER 5.8.91]. The district councils confirmed the Applicant's methodology was appropriate and robust [ER 5.8.91]. The Applicant explained that the available evidence from studies by Public Health England, the World Health Organisation, and the International Agency for Research on Cancer had not identified any health risks for humans or animals exposed to HVDC magnetic fields [ER 5.8.92]. The

Applicant submitted the analysis of potential electromagnetic fields undertaken by the National Grid for the developers of Norfolk Vanguard and Hornsea Project Three, which concluded that irrespective of Hornsea Project Three's choice of HVAC or HVDC the Development would comply with UK exposure limits even on the worst-case parameters [ER 5.8.93]. Public Health England and National Grid were satisfied with the Applicant's assessment within the ES [ER 5.8.94]. The ExA was satisfied with the assessed worst case and concluded the scheme would be below UK exposure limits and conforms with EN-5 [ER 5.8.95]. The ExA was satisfied that exposure to electromagnetic fields from the Development alone and cumulatively with Hornsea Project Three were within the International Commission of Non-Ionizing Radiation Protection ("ICNIRP") guidelines, meet the relevant Public Health England guidance, and comply with part 2.10 of EN-5 [ER 5.8.106].

Post-examination consultation

4.156. In its response to the Secretary of State's 22 September 2021 consultation letter, Oulton Parish Council asked whether the decision by Hornsea Project Three to use HVDC would affect the Electro-Magnetic Field ("EMF") exposure. The Secretary of State notes that at this stage this is Hornsea Project Three's preferred, rather than definitive choice, but that the ExA has already considered this issue and has concluded that the Development would comply with UK exposure limits [ER 5.8.106]. The Secretary of State does not consider that this issue changes the ExA's conclusions.

Physical and mental health

4.157. Corpusty and Saxthorpe Parish Council highlighted that Public Health England had acknowledged localised issues which need careful management during the development phase in consultation with District and County Councils and questioned the effects on well-being of communities along the B1149 and B1145 [ER 5.8.96 to 97]. The Applicant emphasised that the local authorities had agreed that the approach to the assessment was compliant and appropriate for the Development's scale and anticipated impacts [ER 5.8.98]. The ExA gave weight to the local authorities' confirmation, that the assessment methodology was agreed with Public Health England which had offered no further comments in response to the submissions made during the Examination in relation to mental health effects [ER 5.8.100]. The ExA noted that adverse effects on communities were assessed and mitigated in different topics and considered that drawing the assessments together in one location would have provided all parties with a composite understanding of how adverse effects interrelate and affect day-to-day quality of life and could have led to an earlier and more holistic approach to mitigation and acknowledged the concerns of Corpusty and Saxthorpe Parish Council and others [ER 5.8.97 and 101]. The ExA considered it remiss that inter-related adverse effects on communities that might be affected by construction traffic but which were not on the immediate route of the cable corridor, notably Cawston and Oulton, were not considered in the health impact assessment as the Development could put a stress on these communities which had not been considered by the Applicant [ER 5.8.102]. The inter-related effects on these communities should have been considered and presented in the round to get a fuller understanding of how adverse effects interrelate and affect the daily quality of life of affected communities [ER 5.8.107]. The Applicant insisted its approach complied with Public Health England's recommendations [ER 5.8.97]. The ExA notes that EN-1 (Para 4.13.5) states that aspects of energy infrastructure most likely to have significant detrimental effects on health are subject to separate regulation which provides effective mitigation of them, and it is unlikely that health concerns will constitute a reason to refuse consent or require specific mitigation under the 2008 Act [ER 5.8.108].

4.158. The Applicant's assessment of effects on physical and mental health follows World Health Organisation guidance and its methodology and findings were agreed with relevant local authorities [ER 5.8.108]. The health impact assessment was in line with EN-1 (Para 4.13.5) [ER 5.8.108]. The ExA considered that health impacts should be accorded little weight against the making of the Order [ER 5.8.109 and 7.3.32].

Cumulative socio-economic effect

4.159. The direct cumulative effects of the Development with Norfolk Vanguard and Hornsea Project Three were assessed for both Scenarios [ER 5.8.42].

4.160. The Applicant included East Anglia One, East Anglia Three, East Anglia One North and East Anglia Two in the assessment of cumulative construction and employment effects [ER 5.8.42]. The ExA observed that this approach was not consistent with the remainder of the ES [ER 5.8.42], and on this basis the cumulative beneficial economic effects were overstated. Even excluding those projects the ExA considered that the effect of the Development (alone or cumulatively) would be net positive and that the Skills and Employment Strategy, if suitably delivered, would maximise the economic benefit in the New Anglia Local Enterprise Partnership [ER 5.8.43].

Post-examination consultation

4.161. The Secretary of State notes the concern expressed by Cawston Parish Council in its response to the Secretary of State's consultation letter of 22 September 2021 about the cumulative construction impacts but considers that this does not give rise to new environmental information and has been considered properly by the ExA.

Conclusions

4.162. The ExA considered that after mitigation the residual effects on the local economy, community infrastructure and tourism would not be significant [ER 5.8.103]. The ExA considered that the cumulative beneficial effects to be overstated and that it included projects which had no certainty, which was inconsistent with the cumulative impact assessment undertaken on other areas of the Development, but nonetheless considered that there would be a net positive for direct and indirect employment [ER 5.8.10]. The ExA considered that there is a compelling case for delivery of new electricity generation infrastructure from renewable sources to deliver social and economic benefits through cost-efficiencies and competitive availability for industrial, commercial, and domestic consumers and transport operations, delivering the requirements of EN-1 paragraphs 5.12.6, 5.12.7 and 5.12.8, and the ExA gives great weight to making the Order [ER 5.8.104].

4.163. The ExA considered that the Development would have adverse effects on agriculture and farming, but that the mitigation measures proposed would adequately address these, so it would accord with EN-1, paragraphs 5.10.5, 5.10.6 and 5.10.8, and accorded little weight against making the Order [ER 5.8.105].

4.164. The ExA was satisfied that EMFs would not exceed the ICNIRP exposure guidelines, would meet the relevant Public Health England ("PHE") guidance and would comply with EN-5 [ER 5.8.106]. The ExA acknowledges that the Development will have adverse effects on health, but has concluded that separate regulation mechanisms will constitute effective mitigation [ER 5.8.108]. The ExA attributed health matters carried little weight against the Order being made [ER 5.8.109].

4.165. The Secretary of State has reviewed the ExA's Report and the consultation responses that have been provided to him. He agrees with the conclusions that the ExA have reached and the weighting of the individual issues that they have suggested.

Offshore marine biodiversity, biological environment, and ecology

4.166. NPS-EN-1 and NPS-EN-3 provide the primary basis for decision making on this application. The NPS EN-3 policy tests for offshore ecology address the specific considerations which apply to offshore wind energy [ER 5.9.4 et seq.].

4.167. Several clarifications, design changes and mitigation measures were secured during the Examination process and the ExA's conclusions were based on the effects after the draft DCO and schedule of mitigation was considered [ER 5.9.253 et seq.].

Benthic habitats

4.168. The main effects identified for benthic habitats related to the impacts of cable installation and protection on sandbanks and *Sabellaria spinulosa* ("*S. spinulosa*") reefs [ER 5.9.37 et seq.].

4.169. The Applicant had minimised the amount of cable protection required, and only the cable protection as detailed in the recommended DCO and associated plans will be deployed during construction. Any additional cable protection required during operation would require a separate licence application: however, there are uncertainties as to whether the sandbanks would fully recover following cable installation [ER 5.9.227 et seq.].

4.170. All sediments would be disposed of within the benthic system and the overall area of sandbank habitat would not change. Furthermore, the control of particle size during sediment disposal is adequately secured in the recommended DCO and the Marine Management Organisation ("MMO") has surety of involvement in the final controls within the Project Environmental Management Plan [ER 5.9.234 et seq.].

4.171. NE and the MMO expressed concern regarding the ability of sandwave crests to reform after sandwave levelling and advised that any sandwave levelling must be monitored before and after levelling. The ExA concluded that monitoring of changes in seabed topography, including sandwave levelling, was adequately secured through the In Principle Monitoring Plan: however, based on the current information, the ExA could not conclude beyond all reasonable scientific doubt that there would be no adverse effects on seabed topography, including sandwaves, from the installation of cables [ER 5.9.231 et seq.].

4.172. The Applicant maintained that it would avoid all *S. spinulosa* reef features during cable installation by micro-siting [ER 5.9.228 et seq.]: however, because the extent of the reefs is unknown, NE considered that there was uncertainty as to whether this would be possible. The ExA concluded there was insufficient evidence to conclude that micro-siting cables around the reefs was feasible, and therefore the loss of *S. spinulosa* could not be excluded [ER 5.9.229 et seq.].

4.173. The ExA concluded that matters relating to benthic ecology have substantial weight against making the Order [ER 7.3.36].

Marine mammals

- 4.174. The appropriate methodology was used to assess the impacts of noise on harbour porpoise and mitigation for the effects of piling in relation to permanent auditory injury was secured within the recommended DCO. NE, Whale and Dolphin Conservation and The Wildlife Trusts were concerned about the lack of a mechanism to manage cumulative construction effects from offshore wind farms in the North Sea: however, the ExA believed that the Offshore Petroleum Regulator for Environment and Decommissioning activity tracker would be available for strategically controlling noise activities to protect marine mammals [ER 5.9.238 et seq.]. The ExA considered that the effects on marine mammals have little weight against making the Order [ER 7.3.38].
- 4.175. Specific mitigation measures to minimise physical or permanent auditory injury of marine mammals will be included in the Marine Mammal Mitigation Protocol for the Development.
- 4.176. The Secretary of State concludes that there would be no adverse effects from underwater noise on marine mammals from the Development alone or in-combination with other plans or projects.

Offshore ornithology

- 4.177. The ExA concluded that a significant adverse effect could not be ruled out for risks of cumulative collision plus displacement mortalities of gannet, from the Development alone; and in-combination collision mortalities for gannet, kittiwake, greater black-backed gull, lesser black-backed gull, and herring gull, when the Development is considered with other plans and projects [ER 7.3.39]. This conclusion was based on NE's modelling parameters and the uncertainty around the mortality figures included in the cumulative totals for Hornsea Project Three and Hornsea Project Four OWFs.
- 4.178. The ExA could not rule out a significant adverse effect at the EIA scale for the displacement impacts on razorbill, guillemot, or red-throated diver [ER 5. 9. 247 et seq.].
- 4.179. The ExA concluded that matters relating to offshore ornithology have substantial weight against the making of the Order [ER 7.3.41].

Conclusions

- 4.180. In applying the NPS EN-3 policy tests for offshore ecology, the ExA concluded that [ER 5. 9. 250 et seq.]:
- The tests for specific effects on fish, seabed habitats, marine mammals and birds have not been passed.
 - The test for noise mitigation that would minimise significant disturbance to marine mammals has been passed.
 - While a bird collision risk assessment has been conducted to a satisfactory standard having had regard to the advice from the relevant statutory advisor, the results of the assessment do not pass the test.
 - Mitigation for subtidal habitat impacts through micro-siting, cable burial and limited use of anti-fouling paints does not pass the test.
 - Marine water quality effects from the disturbance of seabed sediments or the release of contaminants have been considered and the test was passed.

4.181. The ExA concluded that significant weight against the Order being made should be given for marine biodiversity, biological environment, and ecology due to the adverse effects on [ER 5.9.252 et seq.]:

- Benthic ecology
- Reefs
- Sandwaves
- Gannet
- Kittiwake
- Greater black-backed gull
- Lesser black-backed gull
- Herring gull
- Red throated diver
- Razorbill
- Guillemot

4.182. The Secretary of State agrees with the ExA's conclusions on the ecological receptors listed above. It should be noted that some of these receptors are also qualifying features for protected sites. Where this is the case, they are considered further in section 5 of this letter (Habitats Regulations Assessment) and when weighing the overall planning balance.

Marine and coastal processes

4.183. The primary impact in relation to coastal process was the choice of landfall location [ER 5.10.11]. Happisburgh South was selected as it avoided the Cromer Shoal Chalk Beds Marine Conservation Zone, allowed co-location of landfall with Norfolk Vanguard which reduces the total area directly impacted, avoids populated areas and areas at risk of flooding as far as possible, provides opportunities associated with Happisburgh archaeology, and avoids technical engineering and feasibility risks associated with locating infrastructure in the brownfield site within the Bacton Gas Terminal land [ER 5.10.13]. The proposed HDD compound and transition pit would be set back from the cliff edge to ensure that coastal erosion should not affect the drilled cable or transition pits within the project's lifetime [ER 5.10.15], with the cables buried sufficiently deeply below the shore and cliff base to have no effect on coastal erosion [ER 5.14.17]. The landfall works would be the same for both Scenarios [ER 5.10.17].

4.184. The ExA examined coastal erosion in the vicinity of the landfall and the choice of landfall technique [ER 5.10.17]. North Norfolk DC and the Applicant agreed that it would be appropriate to include a requirement to monitor the landfall site and Requirement 17, which relates to the Landfall Method Statement, was extended to include one along with remedial works if the rate and extent of landfall erosion extended beyond that predicted, which must be submitted for approval by North Norfolk DC, in consultation with the relevant Statutory Nature Conservation Body, prior to the commencement of the landfall works and export cable [ER 5.10.23 & 5.10.37]. Requirement 17 stipulates the need for ongoing inspections and in the event of cable exposure during the operation of the Development that the Applicant must submit proposals to North Norfolk DC in consultation with NE for remedial measures to protect the cables at the landfall [ER 5.10.41].

- 4.185. The Transition Joint Bays would be set back from the cliff-line at a minimum of 125m, with the flexibility to set back up to 325m, which is sufficient to accommodate the most up-to-date information and forecasts on coastal erosion and beyond, with the final set back informed by predictive models of coastal processes and data from periodic surveys of the coastline [ER 5.10.31 and 5.14.23]. The Applicant explained that as drilling mud is required to lubricate the drilling head and suspend the cuttings a blowout could occur on any of the proposed tunnelling methods [ER 5.10.34 & 35]. The drilling method would be defined post-consent following further site investigation, detailed design and contractor engagement, and the Applicant provided a Clarification Note setting out the prevention and mitigation measures for directional drilling [ER 5.10.36]. The Applicant explained that the Shoreline Management Plan would not be affected due to allowances made for predicted erosion rates during the project design [ER 5.10.32].
- 4.186. A construction method statement including the cable landfall must be agreed with the ExA prior to construction (Deemed Marine Licence Schedules 11 and 12 Part 4, Condition 9(1)(c)(iv)). The MMO did not comment on this point during the Examination and NE confirmed it was satisfied that issues relating to the assessment of coastal erosion at Happisburgh was resolved [ER 5.10.33]. Both NE and the MMO agreed the Applicant's assessment of cumulative impacts for both Scenarios [ER 5.10.38]. Although the MMO had some concerns over the level of confidence in the CIA it generally agreed that the level of risk would likely be minimal and NE concluded that the Applicant had made every effort to reduce impacts to an acceptable level and it was unlikely there would be a significant adverse impact to the wider marine processes [ER 5.10.39]. The ExA noted that no Interested Party raised any comment relating to these issues [ER 5.10.40].
- 4.187. The ExA concluded that the Development would not have a significant impact on marine and coastal processes, would not contribute to coastal change in the area during the expected lifetime of the Development even taking into account climate change [ER 5.10.42], and would be resilient to coastal erosion and deposition, taking account of climate change [ER 5.10.43]. The requirements of EN-1 and EN-3 was complied with and the Applicant had provided information about alternative landfall sites and alternative cable installation methods along with an explanation for the final choice as required by EN-3 [ER 5.10.43 & 5.10.45]. The ExA was content the Applicant had had due regard to the appropriate marine policy documents as requirement in the Marine and Coastal Access Act 2009 and the Shoreline Management Plan [ER 5.10.44]. The ExA concluded no weight should be given against the order being made [ER 5.10.46 and 7.3.49]. The Secretary of State agrees.

Commercial fisheries and fishing, and Navigational Safety

- 4.188. Due to the significant overlap between the ExA's consideration of fishing-related safety and wider navigational safety issues (including search and rescue aircraft) the Secretary of State considers these issues together. However, this should not be construed as according greater or lesser significance to navigational and aviation safety than was given to them by the ExA.

Navigational and Aviation Safety

- 4.189. Embedded mitigation for the Development includes its design and the outline Project Environmental Management Plan, the Scour Protection and Cable Protection Plan, and the Offshore In-principle Monitoring Plan, all secured via the Deemed Marine Licences [ER 5.17.16]. Navigational safety measures include safety zones around structures during construction and maintenance, pre-construction risk assessment of cable burial and

protection, compliance with design rules agreed with the Maritime and Coastguard Agency (“MCA”) and Trinity House, compliance with the Convention on the International Regulations for Preventing Collisions at Sea 1972 (COLREGs) and the International Convention for the Safety of Life at Sea 1974 (SOLAS), lighting and marking of the Development to be finalised in consultation with the MCA and Trinity House, the alignment of turbines with the adjacent Deep Water Route, foundation designs to be risk assessed for impact on navigation in compliance with MGN 543 (Safety of Navigation: Offshore Renewable Energy Installations) (“MGN 543”), and the promulgation of information to mariners and marine traffic coordination [ER 5.17.17]. Additional mitigation includes traffic management to address the increased collision risk from displaced vessels, and emergency response planning and cooperation procedures [ER 5.17.19]. Cumulative transboundary impacts could arise upon commercial shipping transiting between the UK and other European Economic Area ports, but route deviations had no perceptible impacts and the amounts of displacement and deviation were tolerable and therefore not significant in EIA terms [ER 5.17.27].

- 4.190. The Navigation Risk Assessment (“NRA”) concludes that increased vessel-vessel collision risk and adverse effects on Emergency Response Resources are tolerable and the risk of fishing vessel collision with structures during operation is tolerable with mitigation and not significant in EIA terms [ER 5.17.18]. The MCA agreed that the NRA accorded with MGN 543 and the MCA 2015 methodology for assessing marine navigational risk together with International Maritime Organisation Formal Safety Assessment 2002 guidelines [ER 5.17.20]. The MCA requested an outline Marine Traffic Monitoring Strategy, which would be a certified document, to ensure the NRA remains throughout the construction and operation of the Development [ER 5.17.21].
- 4.191. The MCA objected that the NRA addresses only one line of orientation of wind turbine generators rather than at least two lines of orientation as recommended in MGN 543. The MCA agreed the final layout design would be subject to post-consent agreement with the MMO in consultation with the MCA and Trinity House to minimise the risks to surface vessels and Search and Rescue aircraft operating with the site [ER 5.13.18 et seq. and 5.17.34 et seq.].
- 4.192. The MCA and the Applicant agreed revised Deemed Marine Licence wording requiring timely production of an Emergency Response Cooperation Plan which required pre-commencement agreement in writing from the MMO in consultation with the MCA of compliance with the requirements of MGN 543 [ER 5.17.33]. The ExA was satisfied that this was appropriately secured in the draft DCO [ER 5.17.33]. The Secretary of State considers that the agreed approach is appropriate and that the quashing of the Norfolk Vanguard Order, with which this wording is consistent, does not impact this conclusion.
- 4.193. The ExA concluded that the NRA was carried out appropriately in consultation with appropriate stakeholders, considered the worst-case effects of safety zones and effects on recreational navigation, that site selection and configuration was made with a view to minimise disruption to navigation and shipping and avoid interference with international sea lanes and that negative impacts were As Low As Reasonably Practicable [ER 5.17.38]. The ExA was satisfied that the Search and Rescue Response Assessment, identifying lines of orientation, would be part of post-consent approval of the final Design Plan before construction and was secured in the Deemed Marine Licences [ER 5.17.38].

- 4.194. The MCA does not support safety zones triggered by the use of Service Offshore Vessels during major maintenance, considering such vessels should navigate safely in accordance with the international law of the sea [ER 5.11.50].
- 4.195. The National Federation of Fishermen's Organisations ("NFFO") (representing the English fishing industry) and National Association of Producer Organisations in Dutch Demersal Fisheries ("VisNed") (representing the majority of Dutch demersal fisheries) agreed that satisfactory mitigation would be achieved by appropriate communication to the fishing industry ahead of initiating construction safety zones, to be defined in the Fisheries Liaison and Co-existence Plan, a daughter plan of the Project Environmental Management Plan [ER 5.17.23]. The Applicant highlighted that the MCA's position related to the application of navigational guidance, whereas the NFFO and VisNed's position related to access to existing fishing grounds [ER 5.11.51]. The Secretary of State notes the ExA considered the potential effects of access to fishing grounds from safety zones would not prevent the making of the Order [ER 5.11.54 et seq.]. The Secretary of State has taken account of the MCA's advice, the position of the NFFO and VisNed and the ExA's analysis of the likely impacts of post-consent safety zones and agrees that the impacts of any post-consent safety zones does not justify refusing to make the Order.
- 4.196. The NFFO and VisNed requested the draft DCO/DML provisions securing reporting of dropped objects and exposed cables should also refer to shallow buried cables as recommended by the Fishing Liaison with Offshore Wind and Wet Renewables Group's Best Practice Guidance [ER 5.11.56]. The ExA concluded the risk of snagging from cable exposure or shallow buried cables would not prevent the making of the Order [ER 5.11.61].
- 4.197. The MCA considered safety risks to fishing vessels would be within acceptable limits subject to post-consent mitigation [ER 5.11.64], with the Fisheries Co-Existence and Liaison Plan intended to mitigate the risk to fishing vessels in the vicinity of survey, construction and service vessels for the Development, with a range of procedures developed post-consent (including a fisheries guidance document) to reduce interaction of offshore wind farm development with fishing activity and to provide response procedures [ER 5.11.65]. The Eastern Inshore Fisheries and Conservation Authority confirmed that it was satisfied with the assessment of potential effects of service vessel traffic on fishing gear and the safety of fishing vessels, and reiterated the need for a strong commitment to effective communication between developers and the fishing industry [ER 5.11.65], and the ExA noted it agreed the appropriateness of the measures covered in the Fisheries Liaison and Co-existence Plan to control the potential interactions [ER 5.11.66].
- 4.198. The ExA agreed with a request by Trinity House, supported by the MCA, for additional wording in the draft DCO and the Deemed Marine Licence conditions to require specific consultation in the event that cable protection exceeded 5% of navigable depth [ER 5.11.60, 69 and 75, 5.17.24 and 26]. The Secretary of State agrees with the proposed wording [ER 5.11.75 & 5.17.28].
- 4.199. The ExA concluded that, in accordance with the Marine and Coastal Access Act 2009, the Applicant had had due regard to the need to prevent interference with legitimate uses of the sea and that, in accordance with environmental, social, and economic and marine policies and international maritime law, no unacceptable negative impacts on shipping activity, freedom of navigation and navigational safety would arise [ER 5.17.38]. The ExA concluded that navigation and shipping matters did not weigh against the Order being made [ER 5.17.39].

Commercial fisheries and fishing

- 4.200. The Applicant contended that co-existence with the fishing industry and mitigation for fishing will be actively promoted. If necessary, disruption compensation would be considered in line with Fishing Liaison with Offshore Wind and Wet Renewables Group (“FLOWW”) guidance (2014)²⁰. This would be secured through the Fisheries Liaison and Co-existence Plan which is secured through the Project Environmental Management Plan [ER 5.11.26].
- 4.201. The NFFO and VisNed sought to address the loss of fishing grounds for certain types of fisheries, impediments to those that could still theoretically fish within the array, and whether cumulative impacts from other projects have been correctly assessed [ER 5.11.27]. Concerns about cumulative impacts included that it should examine predicted future losses of commercial fishing grounds as well as past losses, and that the Commercial Fisheries assessment should have been defined more quantitatively [ER 5.11.30]. The Eastern Inshore Fishery and Conservation Authority agreed with the NFFO and VisNed’s concerns, but also agreed that the potential impacts on inshore fisheries was adequately characterised [ER 5.11.32].
- 4.202. The Secretary of State notes the NFFO and VisNed’s concerns in relation to the baseline used for the evaluation of the impacts, arguing that the CIA should have taken account of the impact of existing plans and projects rather than taking these to be part of the baseline [ER 5.11.30]. The Secretary of State agrees with the ExA’s view that already operational offshore energy projects, active licenced marine activities and implemented conservancy measures are properly treated as part of the existing environmental baseline as any commercial fishing activity would have adapted to them and any adverse effects from these would be reflected in the baseline [ER 5.11.39].
- 4.203. The NFFO and VisNed consider that the minimum spacing between structures within an offshore wind farm required for beam trawling is at least 1km and at least 2km for seine netting. During the Examination the minimum spacing between wind turbines was increased from 720m to 800m, below these distances [ER 5.11.36]. The Applicant considered it highly unlikely seine netting would resume in operational sites, but that other forms of fishing would in general be able to resume, largely depending on the perception of individual skippers. In the worst case that skippers elect not to fish within the Development site during operation the Applicant considered the impact would be medium adverse [ER 5.11.36]. The MMO agreed that the ES adequately characterises the baseline environment for commercial fisheries, the impact significance conclusions were appropriate, and the cumulative impact of the Development with other infrastructure for Dutch beam trawling, Dutch seine netting and UK-based (Anglo-Dutch) beam trawling would be moderate adverse, and minor adverse for other beam trawling fleets and UK beam trawlers and French demersal and pelagic trawlers [ER 5.11.37].
- 4.204. The NFFO and VisNed requested the Applicant to clarify the circumstances in which it would regard cable damage from fishing activity to be legally actionable as the result of wilful intent or negligence on the part of a fishing vessel operator. The Applicant stated that each case would be judged on its merits [ER 5.11.35]. The ExA noted there is no established precedent or policy for such legal action and considered this potential additional deterrent would be

²⁰ FLOWW (2014). Best Practice Guidance for Offshore Renewables Developments. Recommendations for Fisheries Liaison.

marginal to the spatial constraints that the Development would have on fishing and therefore attributed little additional weight against making the Order [ER 5.11.40]. The Secretary of State agrees with the ExA.

- 4.205. The ExA was satisfied that fishing vessel and gear snagging risk mitigation is secured via the pre-construction plans including the Fisheries Liaison and Co-existence Plan within the Project Environmental Management Plan and the Cable Specification, Installation and Monitoring Plan, which are secured in the draft DCO [ER 5.11.67]. Consequently, it did not consider that the potential effects on the safety of fishing vessels to be a factor that would prevent the making of the Order [ER 5.11.68].
- 4.206. The ExA concluded that the loss or restricted access to fishing grounds due to the Development alone would be minor adverse at worse, and cumulative impacts for Dutch seine netting and beam trawling and Anglo-Dutch beam trawling would be moderate adverse, with minor adverse impacts for Belgian beam trawling, French demersal and pelagic trawling, and local inshore fishing vessels, which would not be significant in EIA terms [ER 5.11.43 et seq.].
- 4.207. The ExA noted that the Applicant's assessment includes proposals for closures to fishing within Marine Protected Areas in the North Sea (in UK, Dutch, and German waters) which represented a worst-case scenario [ER 5.11.45].
- 4.208. The Applicant agreed to include wording requested by the MMO that it would not be involved in discussions on compensation or arbitrate on such matters in the final version of the Fisheries Liaison and Coexistence Plan, which would be submitted post-consent, and that the MMO is responsible for approving this document. The ExA recommended that this issue did not weigh against making the Order [ER 5.11.70]. The Secretary of State agrees.
- 4.209. The ExA noted minor adverse impacts alone and cumulatively on fish and shellfish species, and no greater than minor adverse impacts after mitigation on inshore fishing activity with the ExA concluding that neither of these weigh against making the Order [ER 5.11.72]. The ExA noted moderate adverse cumulative impacts (significant in EIA terms) on Dutch beam trawling and seine netting and Anglo-Dutch beam trawling, but because other likely impacts on all other fisheries was negligible or minor adverse the ExA attributed little weight against making the Order [ER 5.11.72].
- 4.210. The ExA was satisfied that as required by NPS EN-3 fishing industry representatives were consulted, and it considered the extent to which the Development occupies recognised important fishing grounds with the intention of minimising the loss of fishing grounds and whether the project would prevent or significantly impede protection of sustainable commercial fisheries and fishing activities during construction or operation, according significant weight to this issue. The ExA considered that, where adverse effects cannot be minimised or mitigated, the Applicant has put forward a strong case for the Development as required by the East Inshore and East Offshore Marine Plans policies FISH1 and GOV3, and that the requirement of policy CAB1 to take account of cable protection measures has been met [ER 5.11.62 and 71].
- 4.211. The ExA considered the concerns expressed by the NFFO and VisNed over the risk of legal action for damage to cables have some merit but attributed little additional weight against making the Order [ER 5.11.72]. Overall the ExA attributed little weight against the Order being made [ER 5.11.73].

- 4.212. The ExA has drawn the Secretary of State's attention to the potential future cumulative impacts of aggregated loss of or restricted access to fishing grounds as a strategic issue for Government consideration [ER 5.11.74]. This is not a matter which impacts on the present decision, but the Secretary of State will be drawing this recommendation to the attention of the relevant Government departments.
- 4.213. The Secretary of State agrees with the ExA's conclusions and attributes little weight against making the Order due to the adverse impacts it will have on certain types of fishing activity.

Other matters

Aviation and radar

- 4.214. The Secretary of State notes that the Ministry of Defence and NATS Safeguarding withdrew objections subject to the inclusion of agreed wording in Requirements 12, 13 and 34 of the draft DCO [ER 5.13.14 et seq.]. Anglia Radar confirmed that the mitigation agreed with NATS met its needs [ER 5.13.17].
- 4.215. The ExA concludes that the Development accords with NPS EN-1 section 5.4, consultation was appropriate, the assessment of potential effects appropriately covers civil or military aviation and/or other defence assets including radar, there were no unresolved conflicts between the Development and military interests, there were no outstanding objections in relation to aviation and radar, and post-consent submission of details prior to construction were secured by Deemed Marine Licence Conditions [ER 5.13.22 et seq.]. The ExA concluded no weight should be given for or against the Order being made in respect of aviation and radar matters [ER 5.13.24]. The Secretary of State agrees.

Climate change

- 4.216. The primary impacts of the Development considered were on coastal processes and geomorphology, rises in sea-level and wave heights and flood risks [ER 5.14.12]. No regulator or Interested Party expressed concerns relating to these issues, and the effects were assessed as the same for both Scenarios [ER 5.14.13].
- 4.217. Mitigation will be embedded through the Development's design, the OCoCP, and the OLEMS [ER 5.14.16]. Additional mitigation was adopted during the EIA process to reduce or eliminate predicted significant impacts as detailed in the Schedule of Mitigation and secured through control documents and the draft DCO requirements [ER 5.14.16].
- 4.218. Embedded mitigation for coastal erosion is considered at paragraphs 4.183 and 4.185 above. The Applicant assessed that rises in sea level would not change significantly during the project's design life, and the impact from storm surges was predicted to be insignificant with no mitigation considered necessary [ER 5.14.18]. Residual flood risk impacts from both Scenarios ranged between negligible and minor adverse [ER 5.14.19].
- 4.219. Offshore infrastructure would be designed against standards including extreme events to ensure resilience to both climate change and 1-in-100 year storms [ER 5.14.24 and 25]. Subsea cables would be protected from storm action by being buried 1-2m below the seabed and surveyed on a routine basis to identify and rebury any sections that become exposed [ER 5.14.25]. The ExA concluded that this approach should provide adequate protection against extreme sea level rises and storm surges [ER 5.14.27].

4.220. The ExA requested a carbon footprint for the Development, which concluded that the greenhouse gas emissions from construction and operation were anticipated to be 1,599,239 t CO₂e for the offshore element in both Scenarios, with the onshore emissions 60,365 t CO₂e for Scenario 1 and 137,640 t CO₂e for Scenario 2 [ER 5.14.32], with an estimated generation of 248,000 GWh over the Development's lifetime [ER 5.14.33]. The Applicant concluded the Development's Greenhouse Gas intensity was between 7.48 to 7.80 g/CO₂e/KWh, with a carbon payback expected to be 1-2 years from first generation to the UK grid, with zero greenhouse gas energy generation from the second year of operation [ER 5.14.34]. Mulbarton Parish Council was the only Interested Party to disagree, challenging the assumptions [ER 5.14.35]. The ExA reviewed the Council's submissions and the Applicant's response and agreed with the Applicant's calculations and conclusions [ER 5.14.37 and 38].

4.221. The ExA was content the Applicant had considered climate change adaption in the Development's design, and that embedded mitigation accounts for the predicted climate change scenarios on and offshore [ER 5.14.20 et seq.]. The ExA was satisfied the Development would not result in significant adverse effects, that all mitigation is secured appropriately, and that the requirements of EN-1 and EN-3, the Climate Change Act 2008, and the Climate Change Act (2050 Target Amendment) Order 2019 are complied with [ER 5.14.40 et seq.]. The ExA was satisfied that the Applicant used the latest UK Climate Projections available, and that no features critical to its operation may be seriously affected by more radical changes to the climate beyond the latest UK climate predictions [ER 5.14.41]. It concluded no weight for or against the Order being made should be given in respect of climate change and adaptation [ER 7.3.58], and that there was substantial weight in favour of the Order due to its contribution toward achieving zero carbon energy [ER 5.14.42]. The Secretary of State agrees.

Grid connection

4.222. Many Interested Parties argued that a grid connection through an offshore ring main should be considered to reduce the need for multiple cable corridors and substations across Norfolk and Suffolk [ER 5.15.9]. The ExA acknowledged these representations, particularly in light of the number of offshore wind farm projects coming forward in the region, but considered this was not an alternative which could be considered within the Examination [ER 5.15.15]. A number of Interested Parties questioned the choice of connection point and argued for alternative connection locations [ER 5.15.17]. The ExA concluded it could not consider feeding into the regional distribution network in Norfolk as an alternative to the national transmission system as it was outside the scope of the DCO [ER 5.15.20 et seq.]. The ExA was satisfied the case for the connection at Necton was sound, based on the detailed assessment which the Applicant undertook with National Grid, and the legal and policy requirements for considering alternatives were complied with in reaching the decision to accept the connection offer at Necton [ER 5.15.19 & 5.15.24]. The ExA concluded that the grid connection carries no weight for or against the making of the Order [ER 5.15.24 and 7.3.55]. Whilst acknowledging the concerns of the parties, the Secretary of State agrees with the ExA that connection to the regional distribution network is outside the scope of the DCO. The Secretary of State also agrees with the ExA's conclusion that the process by which the proposed grid connection at Necton was identified complied with the necessary legal and policy requirements. The Secretary of State returns to the issue of the offshore ring main in the consideration of post-examination consultations below.

4.223. The Secretary of State notes the ExA's conclusion to give no weight for or against the grid connection, which reflected the policy position and the options available at the time that it examined the issue and wrote its recommendations.

Post-examination consultation

4.224. The Secretary of State received a significant number of consultation responses arguing that account should be taken of the Offshore Transmission Network Review ("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.

4.225. 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 and Ofgem published a joint letter "Increasing the level of coordination in offshore electricity infrastructure"²¹, 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 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."²²

4.226. 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."²³ It further notes "changes to ongoing projects especially those far along in the development process can carry substantial risk to project success."²⁴ "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."²⁵ "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

²¹ <https://www.gov.uk/government/publications/increasing-the-level-of-coordination-in-offshore-electricity-infrastructure-beis-and-ofgem-open-letter>

²²

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

²³ <https://www.ofgem.gov.uk/publications/consultation-changes-intended-bring-about-greater-coordination-development-offshore-energy-networks> at page 2.

²⁴ Paragraph 1.6.

²⁵ Paragraph 1.7.

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.”²⁶

- 4.227. In its response to the Secretary of State’s consultation letter of 9 July 2021 the Applicant set out its position in relation to the OTNR²⁷ and indicates that it considers that the Development is in a very late stage of development, but that it has been working with the Electricity System Operator (“ESO”) to explore Early Opportunity options which could be delivered within the project timelines and could be incorporated into the existing projects as defined by the parameters of the Norfolk Boreas application, the existing regulatory frameworks, and using available technology. The Applicant has indicated that if other as yet unidentified offshore projects come forward within an appropriate timeframe there is a possibility that it may be possible to engineer some additional capacity into the Norfolk Boreas project. The Secretary of State notes that the Applicant has chosen not to opt into the voluntary Early Opportunities workstream. He considers that this is a choice for the Applicant.
- 4.228. 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 which 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 workstream²⁸. 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 IPC 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 Development has been brought forward in line with the existing regulatory regime. The Secretary of State considers that he should continue to assess the Development in line with current policy as set out in the NPSs.
- 4.229. After careful consideration the Secretary of State has concluded that refusing the entire 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 has balanced the substantial harm arising from landscape and visual issues against the substantial and pressing need for renewable electricity sources and considers that the latter should prevail. He 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 Development.

²⁶ Paragraph 1.15.

²⁷ <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002848-Offshore%20Transmission%20Network%20Review.pdf>

²⁸ National Grid Electricity System Operator Open Letter on the Offshore Transmission Network Review, 27 September 2021 - <https://www.nationalgrideso.com/document/211251/download>.

Heritage matters and onshore archaeology

- 4.230. North Norfolk DC considered there would be some less than substantial temporary construction stage impacts to heritage assets, it was unlikely the operational phase would result in unacceptable impacts, and the public benefits associated with the wind farm would more than outweigh these [ER 5.16.15].
- 4.231. The export cable corridor would pass through the National Trust owned Blickling Estate and Blickling Conservation Area [ER 5.16.16]. The ES assessed the adverse effects of Scenario 1 as temporary and not significant, with mitigation achieved through sensitive management of duct installation works, strictly controlled backfilling and reinstatement returning field boundaries and hedgerows to their pre-construction condition, and these measures are secured in the OCoCP and OLEMS [ER 5.16.16]. A comprehensive programme of post-consent archaeological survey work would take place across the relevant parts of the Estate in consultation with the National Trust and Norfolk CC, set out in the Outline Written Scheme of Investigation [ER 5.16.17]. The National Trust was satisfied and withdrew its objection to the Development [ER 5.16.18].
- 4.232. Broadland DC, Cawston PC, and some Cawston residents raised concerns about potential harm to listed buildings and adverse effects to the Cawston Conservation Area from traffic including HGVs using the High Street during construction [ER 5.16.14 and 5.16.19]. Broadland DC was concerned that outstanding details for the Cawston HIS could potentially result in adverse effects on the appearance and character of the Conservation Area and the setting of listed buildings due to noise and vibration disturbance, and that this could be cumulative with Norfolk Vanguard and Hornsea Project Three [ER 5.16.20]. Cawston PC was concerned the cumulative impacts on listed buildings were not adequately assessed as there was no agreed traffic management plan [ER 5.16.21]. The Applicant explained the ES focussed on the impacts and effects within the Order Limits and consequently receptors in Cawston were not assessed, but additional work was done during the Norfolk Vanguard Examination and a Joint Position Statement with Broadland DC on the Cawston Conservation Area was submitted during that Examination and was included in Broadland DC's Statement of Common Ground. Although this related to an earlier HIS principles such as minimising adverse effects on the Conservation Area by adopting simple, unobtrusive, good quality, sympathetic materials would stand [ER 5.16.23 et seq.]. Detailed design would be subject to post consent approval by Broadland DC in consultation with Norfolk CC through the Traffic Management Plan [ER 5.16.27]. The Joint Position Statement would form the basis for design development for Scenario 2 or removal and reinstatement of the HIS works for Scenario 1 [ER 5.16.28]. Broadland DC stated that due to the HIS and because most measures would be temporary the adverse effects in Cawston would be less than substantial and the public benefits of renewable energy would weigh in its favour [ER 5.16.26].
- 4.233. Broadland DC agreed cumulative impacts on above ground cultural heritage are likely to be non-significant in EIA terms [ER 5.16.29]. The Historical Buildings and Monuments Commission for England agreed the assessment of cumulative effects for both Scenarios was appropriate [ER 5.16.29]. Norfolk CC agreed the assessment of cumulative impacts was appropriate and the mitigation would ensure that the impacts were non-significant [ER 5.16.29]. The slight visibility of the onshore project substations would have an indirect effect on the setting of the Church of St. Andrew Bradenham but could be reduced by additional mitigation planting beyond the on-site landscape screening and would be considered at the post-consent stage, but the ExA noted there is no mechanism to secure this, and considered

this would count as enhancement rather than mitigation and was not required to address the non-significant adverse effects on the setting of the church [ER 5.16.30 and 5.16.35].

- 4.234. Decommissioning would be done in accordance with the legislation and guidance at that time. The construction phase has been taken as the worst case scenario [ER 5.16.31].
- 4.235. The ExA considered the Applicant had followed the policy on the historic environment within NPS EN-1 [ER 5.16.33], that the description of the heritage assets was proportionate to their importance, that impacts have been assessed adequately for the construction, operation and decommissioning phases, and the addition of the Joint Position Statement on Cawston Conservation Area would ensure the extent of the impact of the Development can be adequately understood [ER 5.16.34]. The ExA agreed that any adverse effects would be non-significant in EIA terms following mitigation [ER 5.16.35]. The ExA was content that the Traffic Management Plan, the HIS and the Joint Position Statement on Cawston Conservation Area would provide adequate criteria to base the final HIS for Scenario 2 and removal in Scenario 1 [ER 5.16.35]. The ExA is content that the Written Scheme of Investigation provides the means by which recording would be secured and published [ER 5.16.35]. The ExA concluded that onshore archaeology and cultural heritage matters do not weigh against making the Order [ER 5.16.36].

Post-examination correspondence and the Secretary of State's conclusions on heritage matters and onshore archaeology

- 4.236. The only item received by the Secretary of State in relation to his consultations was from Cawston Parish Council highlighting their concerns in relation to ongoing construction impacts (mentioned in previous sections). The Secretary of State considers that this response does not raise any new issues which require consideration in determining this application.
- 4.237. The Secretary of State has considered the ExA's investigations and conclusions, including that any adverse effects would be non-significant in EIA terms following mitigation. However, he does note the risk that the slight visibility of the onshore project substations would have an indirect effect on the setting of the Church of St. Andrew Bradenham. 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. However, in light of the public benefit of the Development, the Secretary of State agrees with the ExA that onshore archaeology and cultural heritage matters overall do not provide a justification not to make the Order.

Offshore archaeology and heritage assets

- 4.238. The export cable route and part of the offshore generator areas cover the same footprint as the Norfolk Vanguard project and, as agreed with the Historic Buildings and Monuments Commission for England ("HBMCE"), the data collected for the Norfolk Vanguard application has been used for the Development baseline [ER 5.18.11]. The Secretary of State considers that this approach is appropriate.
- 4.239. The ES assessed residual potential direct and indirect impacts after mitigation as no greater than minor adverse [ER 5.18.18]. The main issues are wreck sites, geophysical survey anomalies of potential archaeological interest, and prehistoric subsea features and paleo-geoarchaeology [ER 5.18.12]. The export cable corridor has the potential, with Norfolk

Vanguard, for multiple unavoidable direct cumulative impacts on as-yet to be discovered features [ER 5.18.20]. After mitigation the potential direct cumulative impacts to unknown assets within the Order limits were assessed as minor adverse, and as other projects did not overlap with the cable corridor cumulative direct impacts were not anticipated [ER 5.18.21]. No significant accumulation of impacts due to inter-relationships between offshore archaeology and marine physical processes is expected [ER 5.18.26].

- 4.240. The ExA was satisfied the risk to Scheduled Monument wreck features is mitigated through the Written Schedule of Investigation [ER 5.18.50], and did not consider the potential effects on such features as a significant risk that would prevent making the Order [ER 5.18.51].
- 4.241. The likelihood of unexpected wrecks or aircraft being discovered during construction would be reduced by archaeological assessment of the preconstruction geophysical survey data and the implementation of The Crown Estate's Protocol – Archaeological Discoveries: Offshore Renewables Projects (The Crown Estate, 2014) ("the 2014 Protocol") [ER 5.18.23]. If non-British wrecks or aircraft are discovered the outline Written Scheme of Investigation secures that advice would be sought from the country of origin about their legal status [ER 5.18.24].
- 4.242. Embedded mitigation measures are detailed in the outline offshore Written Scheme of Investigation [ER 5.18.15], a certified document, with the final Written Scheme of Investigation to be agreed with the MMO in consultation with the HBMCE and secured through the Deemed Marine Licences [ER 5.18.24]. This includes the application of Archaeological Exclusion Zones around known wreck sites and A1 and A3 anomalies, avoiding A2 and A3 anomalies by cable micro-siting where possible, and establishing a protocol and watching brief to report, record and assess archaeological finds during pre-construction surveys, construction, and operation. Additional mitigation includes further investigation and assessment of anomalies where micro-siting is not possible, and the further examination and archaeological assessment of potential prehistoric deposits of any geophysical data, with finds being reported using the 2014 Protocol [ER 5.18.16].
- 4.243. The post-consent Written Scheme of Investigation would provide for timely archaeological investigations and the deposit of records in accordance with the outline Written Scheme of Investigation in agreement with MMO acting in consultation with HBMCE [ER 5.18.33 and 5.18.34]. The ExA was satisfied that the acquisition, assessment, and management obligations on archaeological data were adequately provided for in the outline Written Scheme of Investigation [ER 5.18.36]. The ExA was satisfied that specific offshore and intertidal surveys and archaeological investigation were secured through the Deemed Marine Licences and the In Principle Monitoring Plan (also a certified document) [ER 5.18.37].
- 4.244. Particular issues arose relating to the scope to micro-site cables within the Haisborough, Hammond and Winterton Special Area of Conservation, with the MMO confirming it did not envisage prioritising habitat or archaeological features and therefore seeking pre-consent confidence about the ability to micro-site. The MMO deferred to NE in relation to the Habitats Regulations Assessment ("HRA") aspects of siting cables within the site [ER 5.18.39 et seq.]. The Applicant confirmed only a proportion of detected anomalies were likely to be confirmed as of archaeological interest and if they could not be avoided mitigation would be delivered via the Written Scheme of Investigation, agreed in principle with the HBMCE [ER 5.18.41]. The ExA was reassured by this agreement in principle, and was satisfied with the Applicant's justification of the proposed mitigation, including the post-consent design and approval

process for avoiding anomalies or alternatives mitigation secured through the Written Scheme of Investigation under the Deemed Marine Licences and that this satisfied the policy tests within NPS EN-3. The ExA did not consider that the potential effects on archaeological features in the Haisborough, Hammond and Winterton Special Area of Conservation to be a significant risk factor to prevent making the Order, but this view was without prejudice to the HRA related aspects of micro-siting within the site [ER 5.18.42 et seq.].

- 4.245. Landfall works may not commence until a Landfall Method Statement is approved in writing by North Norfolk DC [ER 5.18.17]. Using HDD to install the cable ducts at landfall, running 10-20m below the beach, meant there would be no direct impacts and the potential for palaeolithic materials was anticipated to be low [ER 5.18.17]. The HBMCE was satisfied by the proposal to micro-site works at the landfall or undertake further investigations in accordance with the Written Scheme of Investigation if anomalies cannot be avoided [ER 5.18.46]. The ExA was reassured by HBMCE's agreement, and a post-consent Written Scheme of Investigation would elaborate the procedures [ER 5.18.47]. The ExA did not consider the potential effects on archaeological features in the subtidal zone to be a significant risk that would prevent making the Order [ER 5.18.48]. The Secretary of State is reassured by the HBMCE's views and agrees with the ExA.
- 4.246. Decommissioning would be agreed with the relevant authorities, but impacts were considered to be similar to construction and were assessed as minor adverse after embedded mitigation and therefore not significant in EIA terms [ER 5.18.27].
- 4.247. The ExA concluded that, in accordance with EN-1, the ES adequately described the significance and value of the cultural heritage assets and likely archaeological features that may be affected by the Development, sufficient measures would be taken to avoid affecting offshore Scheduled Monuments, and that the Deemed Marine Licences provide sufficient security of proportionate investigation, treatment, recording and advancement of understanding of the significance of heritage assets if they cannot be avoided by micro-siting and where there is a high probability of encountering as-yet-undiscovered assets, and accepted the Applicant's view of the benefits of securing such information, but accorded little weight to it in favour as it was incidental to the purposes of the Development and merely offset risks inherent in it. [ER 5.18.52 to 53].
- 4.248. The ExA considered that offshore archaeological and cultural heritage did not weigh against the Order [ER 5.18.53]. The Secretary of State agrees with the ExA's recommendations.

Other offshore infrastructure and activities

- 4.249. The Development would be outside areas licensed for dredging and aggregate extraction or known Ministry of Defence danger or practice and exercise areas [ER 5.19.6]. Existing pipelines, telecommunications and transmission cables would be avoided as far as possible, with the worst case assessment identifying that each pair of export cables from the offshore substation would cross a maximum of 11 existing cables and two pipelines before reaching landfall, and there would be up to 10 crossings within the project interconnector search area and 10 crossings within the array area for which crossing and proximity agreements would be agreed post-consent with the asset owners [ER 5.19.6 & 5.19.9]. Existing infrastructure assets within the Order limits are due to be decommissioned by 2023, prior to the construction of the offshore elements of the Development, but in the event of delays in decommissioning the Applicant would continue to discuss with the licence owners and would agree post-consent proximity agreements with the relevant licence owners [ER 5.19.7 &

5.19.8]. It is expected that decommissioning impacts would be discussed with the owners of the relevant infrastructure, and under requirement 14 of the DCO the Secretary of State may serve a notice on the undertaker requiring a decommissioning programme to be submitted to him prior to offshore works commencing. In addition, a specific decommissioning plan relating to the laying of any cable protection in the Haisborough, Hammond and Winterton SAC would need to be approved by the Secretary of State prior to the deployment of any cable protection within that protected site [ER 5.19.9]. No issues were raised in the Examination, and the ExA was satisfied the Applicant had assessed the Development's potential effects throughout its lifecycle, had undertaken early and continued engagement with potentially affected Interested Parties to seek solutions to allow coexistence with other users of the sea, and that site selection was made with a view to avoiding or minimising disruption, economic loss, or any adverse effect on safety to other offshore industries [ER 5.19.12]. The ExA concluded that the worst-case impact on other offshore infrastructure would be no more than minor adverse, and that consequently effects on offshore infrastructure and activities do not weigh against the Order being made [ER 5.19.13 et seq.]. The Secretary of State agrees.

Transboundary effects

4.250. Following the first screening of the Development by the Planning Inspectorate on 21 July 2017 under regulation 32 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 the states of Belgium, Denmark, France, Germany, and the Netherlands were notified [ER 5.20.1]. Belgium, France, Germany, and the Netherlands requested to be involved in further consultation, whilst Denmark stated that it declined to participate [ER 5.20.2]. After the application was accepted a second screening was undertaken on 21 August 2019, and the four states were offered the opportunity to register as Interested Parties [ER 5.20.3]. The Netherlands and Germany acknowledged the letters but did not respond further, Belgium confirmed it had no comments to make, and there was no response from France. The Secretary of State therefore decided it was not necessary to invite the states to participate in the Examination [ER 5.20.4]. Rijkswaterstaat, the implementing agency of the Netherlands Ministry of Infrastructure and Water Management made a relevant representation highlighting its role which includes considering the cumulative effects of offshore wind farms with foreign offshore wind farms and safety for shipping²⁹, but made no further representations during the Examination [ER 5.20.5]. No other comments or representations were received from any state during the Examination [ER 5.20.6]. On the basis of the responses provided by the states consulted the Secretary of State does not consider that there are any transboundary effects which need to be considered.

Waste management strategy

4.251. The ExA did not identify the Applicant's Waste Management Strategy in the initial assessment of principal issues [ER 5.21.1], no specific points were raised in the LIRs [ER 5.21.20], and no issues concerning the onshore waste management strategy were raised in Relevant Representations [ER 5.21.21].

4.252. The ExA confirmed that it was content that the Project Environmental Management Plan, secured by Condition 14(1)(d) of Schedules 9 and 10 and Condition 9(1)(d) of Schedules 9

²⁹ <https://infrastructure.planninginspectorate.gov.uk/projects/eastern/norfolk-boreas/?ipcsection=relreps&relrep=37102>

and 10 would include details of waste management and disposal arrangements and would require agreement with the ExA in consultation with the Statutory Nature Conservation Body [ER 5.21.29]. The ExA was satisfied that, in accordance with NPS EN-1 (Para 5.14.7), the Applicant had proposed an effective strategic system for managing waste arising from the Development such that waste would be managed predominantly on-site, is not expected to have an adverse effect on existing facilities, and that the volume of waste for disposal would be minimised [ER 5.21.30]. It concluded that, in accordance with NPS EN-1 (Para 5.14.8), post-consent agreement by relevant authorities of detailed measures under the Applicant's proposed strategy is secured through the CoCP and its daughter plans (the Materials Management Plan and the Site and Excavated Waste Management Plan) [ER 5.21.16, 5.21.17 & 5.21.30]. There was no evidence that operational pollution control permits, licences, or other consents may not subsequently be granted [ER 5.21.30]. The ExA considered the Excavated Waste Management Plan was sufficient to achieve the Applicant's waste management aims and the relevant policies of the local authorities' development plans [ER 5.21.30]. The ExA considered that the Development would accord with the NPPF, and the National Planning Policy for Waste [ER 5.21.30]. The ExA concluded that waste management did not weigh against the Order being made [ER 5.21.31]. The Secretary of State agrees.

Other post-examination concerns raised

- 4.253. Concerns were raised in the consultation about the Applicant using "confidentiality" as a reason not to share full details of the proposed cable crossing point between Norfolk Vanguard and Hornsea Project Three. The ExA's Report notes that the Applicant did not share with the examination its Co-operation Agreement with Ørsted on the grounds of confidentiality [ER 5.8.67] but the ExA does not express any concern that its consideration of the issues associated with the cable crossing point was constrained because of this. The Secretary of State is therefore content that matters relating the Norfolk Vanguard/Hornsea Project Three cable crossing point have been properly considered.
- 4.254. In its responses to the Secretary of State's final consultation the Necton Substation Action Group raised three new issues. These were the risk of fire at the Necton substation, potential terrorism threats to the Necton substation, and the possibility of future planning applications for battery storage associated with the substation.
- 4.255. The Secretary of State has carefully reviewed the ExA's Report and the documents submitted during the Examination and can find no mention that these issues were raised during the Examination process beyond being listed as an issue (and not developed further) in one Relevant Representation, and only one short email containing a link to a news article about a fire at an electrical transformer submitted during the Examination. The Secretary of State also notes that these issues were not raised by any other party in response to either his first or second rounds of public consultation. However, the Secretary of State considers that it would be appropriate to consider these points in determining this application.
- 4.256. The Secretary of State notes the concerns in relation to the possibility of future battery storage applications, but is required to consider the application in front of him which does not contain such an element. The Secretary of State considers that it is appropriate for any future application for battery storage to be considered on its merits. In relation to fire the Secretary of State notes that it is not possible to discount the risk of an electrical fire, but notes that the issue was not raised by the Fire Service at any stage during the Examination. In relation to terrorism, the Secretary of State notes that this substation is no different from

other electricity substations in terms of its risk, and it would be the responsibility of the operator to ensure that appropriate security measures are put in place to guard against such an attack so far as is possible. In both instances the Secretary of State notes that these risks would exist no matter where the substation was located and that the Necton Substation Action Group was not advocating that the substation should not be built at all, but rather that it should not be located at Necton. In the event that there were substantive concerns in relation to fire or terrorism risks from the substation being located at Necton the Secretary of State would have expected these to be considered extensively in the ExA's Report. Having considered these issues carefully the Secretary of State agrees that there is a risk associated with the construction of the substation irrespective of location and considers that these issues should carry very little weight against granting the Order.

Cumulative and combined effects

- 4.257. Cumulative effects have been considered throughout the relevant individual sections of the ExA's Report [ER 5.22.1]. This section focuses on the inter-related effects, their assessment, and their mitigation, as well as the ExA's findings on the effects on communities [ER 5.22.3].
- 4.258. At the end of the Examination there were outstanding differences of opinion on several issues relating to the Environmental Statement. Norfolk CC disagreed with the findings for traffic and transport and onshore construction effects for the B1149, Broadland DC disagreed with the findings for noise in Cawston for traffic and transport, The Wildlife Trusts and Whale and Dolphin Conservation disagreed with the findings for marine mammals, NE and the Royal Society for the Protection of Birds disagreed with findings for offshore ornithology, and VisNed and the NNFO disagreed with the findings for commercial fisheries [ER 5.22.6]. There were also disagreements on the landscape and visual effects of the substations at Necton, the construction and operational effects of thermal efficiency, land-take, and Electro-Magnetic Fields at the cable crossing with Hornsea Project Three, construction traffic and noise in Cawston and The Street at Oulton, and construction stage and effects at the base port(s) [ER 5.22.7 and 5.22.8].
- 4.259. The ExA noted that the Applicant had only assessed the cumulative effects on communities adjacent to the cable route and had found no significant adverse effects [ER 5.22.13]. The ExA notes no representations disputed the methodology, but that a considerable amount of evidence was submitted to the Examination about the accrual of inter-related adverse construction effects, which it considered important [ER 5.22.14].
- 4.260. The Applicant confirmed that the worst-case scenario for Cawston, Oulton and the cable-crossing north of Reephram for either Scenario with Hornsea Project Three would be a duration of 38 months of work over six years for Scenario 1 and 24 months over four years for Scenario 2 [ER 5.22.16]. The Applicant was unable to identify when specific construction activities would be taken in specific areas because the detailed construction programmes would not be developed until contractors were appointed [ER 5.22.16]. The ExA was satisfied that the Applicant had presented the worst-case duration [ER 5.22.19].
- 4.261. The ExA concluded that at Cawston and Oulton the accumulation of inter-related adverse effects, set out in section 5.4 of the ExA's Report, Construction Effects, would weigh against the Order being made even with the secured mitigation, and has ascribed medium weight against making the Order due to these inter-related effects [ER 5.22.39 and 7.3.62].

Post-examination consultation and conclusions on cumulative and combined effects

- 4.262. As noted above, Cawston Parish Council raised concerns about the construction impacts that will arise during the construction of the Norfolk Boreas project and its impacts when considered cumulatively with the potential construction of Norfolk Vanguard and Hornsea Project Three. The Secretary of State considers that this representation does not introduce new material.
- 4.263. After considering the ExA's Report and the totality of the post-examination consultation responses the Secretary of State agrees with the ExA that medium weight should be ascribed against making the Order due to the inter-related effects at Cawston and Oulton.

5. Habitats Regulations Assessment

- 5.1. The Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations") and the Conservation of Offshore Marine Habitats and Species Regulations 2017 ("the Offshore Habitats Regulations") aim to ensure the long-term conservation of certain species and habitats by protecting them from possible adverse effects of plans and projects.
- 5.2. The Habitats Regulations and the Offshore 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"). They 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.
- 5.3. 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 with SACs and SPAs referred to in this decision letter as "protected sites").
- 5.4. In the UK, the Habitats Regulations apply as far as the 12nm 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.
- 5.5. Regulation 63 of the Habitats Regulations 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."*
- 5.6. And that: *"In the light of the conclusions of the assessment, and subject to regulation 64 [IROPI], 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)."*

- 5.7. Regulation 28 of the Offshore Habitats Regulations 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.”*
- 5.8. And that: *“In the light of the conclusions of the assessment, and subject to regulation 29 [IROPI], 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).”*
- 5.9. 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 or not the project will have an adverse effect on the integrity of the site in view of that site’s conservation objectives.
- 5.10. Where an adverse effect on the integrity of the site cannot be ruled out, the Habitats Regulations provide for the possibility of a derogation 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 national site network is maintained.
- 5.11. The above tests, which are also set out in the Offshore Habitats Regulations, must be interpreted strictly and developments which may result in an adverse effect on the integrity of a protected site can only be authorised once the above tests have been met.
- 5.12. 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 that:
- a. Adverse effects on the integrity of the 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 Development in combination with other offshore wind farms.
 - b. Adverse effects on the integrity of the 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 Development in combination with other offshore wind farms.
 - c. Adverse effects on the integrity of the reef and sandbanks slightly covered by sea water all the time features of the Haisborough, Hammond and Winterton SAC could not be excluded for the Development alone or in combination with other plans or projects because of the location of the offshore wind farm array and cable installation and protection.
- 5.13. However, the ExA could not recommend compensatory measures for the Secretary of State to consider because it did not have sufficiently detailed proposals for compensation. It therefore recommended that the Secretary of State should seek further information from the

Applicant regarding alternative solutions or compensatory measures. The Secretary of State notes that the development consent process for nationally significant infrastructure projects is not designed for consultation on complex issues, such as HRA, to take place after the conclusion of the examination. On occasion, as a pragmatic response to particular circumstances, he may undertake such consultation, but no reliance should be placed on the fact that he will always do so. In this instance, although there was a degree of engagement with the issue at the examination, he has, given the overall circumstances of the case, exercised his discretion to allow the Applicant to make further representations on the matter of possible compensatory measures for the protected sites listed at paragraph 5.12. However, he wishes to make it clear that, in order to maintain the efficient functioning of the development consenting regime, he may not always request post-examination representations on such matters, indeed it should be assumed that he will not do so, and he may therefore make decisions on such evidence as is in front of him following his receipt of the ExA's Report.

5.14. 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.

5.15. The Secretary of State has carefully considered the information presented before and during the Examination, including the RIES, the ES, representations made by Interested Parties, and the ExA's Report itself. He considered that the Development had the potential to have an LSE on 19 European 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
- North Norfolk Coast SPA
- North Norfolk Coast Ramsar site
- Outer Thames Estuary SPA
- Haisborough Hammond and Winterton SAC
- Humber Estuary SAC
- Southern North Sea SAC
- The Wash and North Norfolk Coast SAC
- Norfolk Valley Fens SAC
- Paston Great Barn SAC
- River Wensum SAC
- The Broads SAC

- 5.16. The Secretary of State has undertaken an appropriate assessment in respect of the conservation objectives of the sites to determine whether the Development, either alone or in-combination with other plans or projects, will result in an adverse effect on the integrity of the above sites.
- 5.17. The Secretary of State has considered the available information, including the mitigation measures secured through the DCO and DMLs, and has concluded that the 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
 - North Norfolk Coast SPA
 - North Norfolk Coast Ramsar site
 - Outer Thames Estuary SPA
 - Humber Estuary SAC
 - Southern North Sea SAC
 - The Wash and North Norfolk Coast SAC
 - Norfolk Valley Fens SAC
 - Paston Great Barn SAC
 - River Wensum SAC
 - The Broads SAC

Consideration of Further Tests under the Offshore Habitats Regulations

- 5.18. The Secretary of State cannot rule out an adverse effect on integrity beyond reasonable scientific doubt in relation to:
- Impacts on the lesser black-backed gull feature of the Alde-Ore Estuary SPA/ Ramsar, in-combination with other projects or plans.
 - Impacts on the kittiwake feature of the Flamborough and Filey Coast SPA, in-combination with other projects or plans.
 - Impacts on the Annex 1 reef and sandbank features of the Haisborough, Hammond and Winterton SAC from the Development alone and in combination with other projects or plans.
- 5.19. The Secretary of State has therefore reviewed the Development in the context of Regulations 29 and 36 of the Offshore Habitats Regulations to determine whether it can be consented. References to Regulations 29 and 36 below should be construed as including consideration of the equivalent provisions (Regulations 64 and 68) in the Habitats Regulations if applicable.
- 5.20. Consent may only be given under Regulation 29 where no alternative solutions to the project are available which are less damaging to the affected European site and where Regulation 36 is satisfied.

- 5.21. Regulation 29 allows 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 imperative reasons of overriding public interest (“IROPI”).
- 5.22. Regulation 36 requires the appropriate authority to secure any necessary compensatory measures to ensure that the overall coherence of the National Site Network is protected.
- 5.23. In accordance with guidance on the application of HRA published by the Planning Inspectorate (Advice Note 10) and Defra (2021)³⁰, the Secretary of State reviewed the Development following a sequential process, considering:
- alternative solutions to the Development that have been sought;
 - whether there are IROPI for the 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

5.24. The objectives for the Development are:

- To contribute to enhancing the security of the UK’s energy supply by providing UK-produced renewable energy as required by the Overarching NPS for Energy (EN-1).
 - To provide low-cost energy to the UK consumer. The Development site is stated to have been selected because of its ground conditions and high wind resource which would make delivery efficient. Offshore wind is also stated to be one of the most cost-effective and easy-to-deploy sources of energy within the UK.
 - To contribute to the UK’s drive to meeting carbon reduction commitments.
 - To contribute to the Offshore Wind Sector Deal and the Government’s targets to reach 40GW of installed offshore wind capacity by 2030.
 - To contribute to the UK’s industrial strategy and global leadership in the development of offshore wind projects resulting in socio-economic benefits at a UK and East Anglia/Norfolk level.
 - To help to create a positive legacy for Norfolk and East Anglia facilitating socio-economic development.
- 5.25. 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 Development. Alternatives to the Development considered by the Secretary of State are consequently limited either to Do Nothing or alternative wind farm projects.

5.26. The alternative wind farm solutions considered are:

- Alternative locations in the UK.
- Repowering existing offshore wind farms.
- Use of previously identified infrastructure sites.

³⁰ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

- Consenting of other large-scale infrastructure.
- Alternative offshore cable corridors.
- Alternative design solutions.
- Seasonal restrictions on turbine operation.
- No cable protection in the Haisborough, Hammond and Winterton SAC.

5.27. Having identified the objectives of the Development and considered all alternative means of fulfilling these objectives, for the reasons set out in the HRA, the Secretary of State is satisfied that no alternative solutions are available.

Imperative Reasons of Overriding Public Interest

5.28. A development, having an adverse effect on the integrity of a protected 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 Development is required for IROPI.

5.29. The Secretary of State is satisfied that there are imperative reasons of overriding public interest for the Development to proceed subject to adequate compensatory measures being implemented.

5.30. In arriving at his conclusion, the Secretary of State has reviewed how the Development provides a public benefit which is essential and urgent despite the harm to the integrity of three protected sites that will result from the Development alone or in combination with other operational, consented, or planned projects.

5.31. The conclusion is predicated by the principal and essential benefit of the Development as a significant contribution to limiting the extent of climate change in accordance with the objectives of the Climate Change Act 2008. The consequences of not achieving those objectives would be severely detrimental to societies across the globe, including the UK, to human health, to social and economic interests and to the environment.

5.32. The need to address climate change is the principal tenet behind the Climate Change Act 2008, and subsequently published NPSs for Energy (EN-1)³¹, Renewable Energy Infrastructure (EN-3)³² and Electricity Networks (EN-5)³³ provide a framework for delivering the UK's international commitments on climate change.

5.33. 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.

5.34. The Government's decarbonisation strategy to achieve this commitment relies on contributions from all sectors delivered through multiple individual projects implemented by

³¹ Department of Energy & Climate Change. Overarching National Policy Statement for Energy (EN-1). TSO, 2011.

³² Department of Energy & Climate Change. National Policy Statement for Renewable Energy Infrastructure (EN-3). TSO, 2011.

³³ Department of Energy & Climate Change. National Policy Statement for Electricity Networks Infrastructure (EN-5). TSO, 2011.

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.

- 5.35. 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.
- 5.36. 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 Development, which make a significant contribution to meeting the target capacity in the timeframe required are therefore both necessary and urgent.

Compensatory Measures

- 5.37. The Applicant submitted several documents presenting in-principle compensation measures for the National Site Network Sites where adverse effects were predicted i.e., Alde-Ore Estuary SPA, Flamborough and Filey Coast SPA, and Haisborough, Hammond and Winterton SAC.
- 5.38. The Alde-Ore Estuary SPA in-principle 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 14,000 pairs, which would over-compensate for the predicted 2.1 birds per year that the Development is predicted to kill through collisions. The fencing would be managed in future years to maintain its integrity. Furthermore, the Applicant would fund a coordinator role to facilitate a stakeholder working group reviewing the factors affecting the status of the lesser black-backed gull population and any proposals for conservation measures. The strategy also includes monitoring the effectiveness of the compensation and updating them as required.
- 5.39. The Flamborough and Filey Coast SPA in-principle compensation measures for kittiwake propose the construction of artificial nest sites to increase the productivity of kittiwake in the southern North Sea. The Applicant calculated that a structure measuring 30m by 8m would accommodate 200 pairs of kittiwakes, which in turn would produce around seven times the 14 birds predicted to be killed through collision mortalities.
- 5.40. The Haisborough, Hammond and Winterton SAC in-principle compensation measures for the loss of the Annex 1 sandbank and reef features propose an extension of the SAC where areas of sandbank and reef features stretch beyond the boundaries of the SAC, or the designation of other suitable habitat. This would be achieved through an agreement with NE, Joint Nature Conservation Committee (“JNCC”) and Defra and providing support to the statutory bodies to progress the designation. The Applicant would also provide ongoing support during the formal consultation process to the SNCBs, probably through funding a post for several years.

The Examining Authority’s Conclusions

- 5.41. The ExA considered that the potential alternative solutions to delivering the objectives of the Development and the case for imperative overriding public interest met the requirements of

Regulation 29 of the Offshore Habitats Regulations; however, the compensatory measures proposed by the Applicant were insufficient for the ExA to be confident that the measures would be effective or could be successfully delivered. The ExA recommended that the requirement under Regulation 36 of the Offshore Habitats Regulations to secure compensatory measures had not been met and therefore consent for the Development could not be granted.

Post-Examination Consultation

- 5.42. In February 2021, Defra confirmed that extending designated sites or creating new site designations as compensatory measures for a development would not comply with the legislation, because the selection of site designations must be based on scientific evidence³⁴. The Secretary of State was therefore unable to approve the proposed compensation strategy.
- 5.43. The Secretary of State concluded that the proposed compensatory measures related to extending the SAC did not provide a viable strategy to compensate for adverse effects on the Annex 1 features for which Haisborough, Hammond and Winterton SAC was designated.
- 5.44. During the determination period the Secretary of State's letters invited the Applicant to provide further evidence to support the proposed compensatory measures for the SAC and the SPAs. This included a request for confirmation of the locations of the kittiwake and lesser black-backed gull compensation measures, and evidence that land at the proposed locations could be acquired or leased.
- 5.45. In response to these requests, the Applicant provided additional information regarding the compensation measures including the details of the locations for delivering the compensation measures; programmes for the implementation of the compensation measures, and habitat maintenance; and details of the monitoring measures to assess the success of the compensation measures.
- 5.46. The Applicant also provided evidence that land could be leased for the implementation of the kittiwake and lesser black-backed gull compensation measures, at Lowestoft and within the Alde-Ore Estuary SPA, respectively. This information addressed the key concerns of the Secretary of State, NE and the Royal Society for the Protection of Birds ("RSPB") on the deliverability of the compensation measures at the preferred sites.
- 5.47. Furthermore, taking into account the advice received from NE that the draft of Schedule 19 of the DCO put forward by the Applicant would not result in compensatory measures being in place in appropriate timescales with respect to the impacts arising, the Secretary of State has ensured that the compensation measures, for kittiwake and lesser black-backed gull, are delivered four full breeding seasons prior to the operation of any turbine and that the compensation sites will continue to be maintained and managed beyond the lifespan of the Project if they are occupied by nesting birds. This will be achieved through the addition of new conditions in Schedule 19 of the DCO.

34 Defra (2021). *Defra Letter Ref: 210225*.

- 5.48. Finally, the Secretary of State has requested that for both the kittiwake and lesser black-backed gull compensation measures, a Steering Group will be created to inform the final implementation plans.
- 5.49. With regards to compensating for the adverse effects to the Annex 1 habitats within Haisborough, Hammond and Winterton SAC, the Applicant confirmed that it proposed to undertake marine debris removal within the SAC, together with an awareness campaign to reduce the risk of more debris entering the marine environment.
- 5.50. NE advised that it did not consider that the removal of marine debris and an awareness campaign would provide compensation for the predicted impacts of the Development on the SAC, because the presence of marine debris is not impeding the conservation status of the site. Furthermore, NE was concerned that the debris removal activities could cause further damage to the Annex 1 habitats.
- 5.51. The Secretary of State notes that marine debris could degrade the SAC through the abrasion and smothering of benthic habitats; the dislodging of organisms and seabed features; and from polluting the marine environment with micro-plastics arising from the disintegration of plastic debris³⁵. He therefore considers that the removal of marine debris will improve the condition of the SAC by reducing the risk of damage to benthic habitats, including reefs. The removal of debris will also expose the underlying substrates and allow the recovery of endemic epifaunal communities. Furthermore, removing a source of anthropogenic pollution will reduce adverse pressures on the biological assemblages. The Secretary of State therefore concludes that such measures could contribute to the conservation objectives of the SAC by restoring the extent and distribution of qualifying natural habitats, and the habitats of the qualifying species; and restoring the structure and function of qualifying natural habitats, and the habitats of qualifying species.
- 5.52. The Secretary of State is aware that an assessment of the sensitivity of sandbanks and reefs to marine debris has not been undertaken for Haisborough, Hammond and Winterton SAC³⁵. The Secretary of State therefore proposes that a Benthic Steering Group is established to identify areas of debris within the SAC which, if removed, would support the restoration of these habitats. Should the total area of debris identified be less than the 8.3 ha required to compensate for the impacts of the Project, then in accordance with Defra's guidance³⁶ on compensation measures and pursuant to the adaptive management provisions in Part 3 of Schedule 19 of the DCO, further debris removal could be undertaken at alternative protected sites to benefit other reef and sandbank features within the national site network.
- 5.53. Furthermore, to address the specific concerns of NE regarding the potential of marine debris removal measures to damage benthic habitats, the Secretary of State has set out a suite of conditions around the implementation of these measures, including the engagement of a Benthic Steering Group who will inform the methods for the marine debris removal and prepare a detailed implementation plan.

³⁵

<https://designatedsites.naturalengland.org.uk/Marine/FAPMatrix.aspx?SiteCode=UK0030369&SiteName=Haisborough&SiteNameDisplay=Haisborough%2c+Hammond+and+Winterton+SAC&countyCode=&responsiblePerson=&SeaArea=&IFCAAra=&NumMarineSeasonality=>

³⁶ <https://www.gov.uk/guidance/habitats-regulations-assessments-protecting-a-european-site>

- 5.54. Finally, no offshore cable installation works in the Haisborough, Hammond and Winterton SAC will be permitted until the implementation plan has been approved in writing by the Secretary of State (in consultation with the MMO and NE) and the removal of 8.3 hectares of marine debris has taken place. The Secretary of State notes the representations made by the Applicant to the effect that it would be unfair to require any compensation before it is known whether damage to the SAC actually occurs, but considers that this is necessary given the uncertainty that arises from the information before the Secretary of State.
- 5.55. This additional information together with the conditions provide confidence that suitable measures to compensate for the impacts of the Development on the National Site Network can be secured.

Conclusions

- 5.56. Having considered the additional information presented post-examination, the Secretary of State is able to conclude that appropriate compensation measures can be secured and delivered through the DCO as set out in Schedule 19 and that the requirements of the derogation provisions under the Habitats Regulations and Offshore Habitats Regulations have been met.
- 5.57. The Secretary of State has noted the Applicant's concerns in relation to the implications of potential reduced impacts of "as built" versus "as consented" projects³⁷. The Secretary of State notes that the Applicant has not furnished detailed information to address this point, but considers that to address this concern going forward it is appropriate to include a requirement in this and future Orders that the Applicant (and future applicants) must provide details of the final "as built" scheme at which point a further licence would be required for additional construction. This reflects the text proposed in paragraph 2.29.2 of the draft National Policy Statement for Renewable Energy Infrastructure (EN3)³⁸.

6. Compulsory Acquisition & Temporary Possession

- 6.1. As the ExA recommended that consent should not be granted for the Development it concluded that the case for compulsory acquisition cannot be made out. However, it considered compulsory acquisition matters in the event that the Secretary of State disagrees and is minded to grant development consent [ER 8.1.3].
- 6.2. The Applicant seeks powers for compulsory acquisition of freehold ownership, permanent rights (such as rights of access, repair, and maintenance), and temporary possession and rights.
- 6.3. 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:

³⁷ Applicant's Response to the Request for further information (June 2021) [ExA.PD.D19.V1] at pages 10-11 <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010087/EN010087-002826-Applicants%20Response%20to%20the%20Request%20for%20Further%20Information.pdf>

³⁸ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1015236/en-3-draft-for-consultation.pdf

- 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.
- 6.4. The Applicant has sought to acquire the relevant interests by private agreement, but seeks compulsory powers to secure the necessary land and interests to enable the construction, operation, and maintenance of the Development within a reasonable timeframe [ER 8.2.6]. Restrictive covenants are sought over land in which the ducts, transmission cables and fibre optic cables would be installed to protect and preserve them from damage by construction or excavation works or being made materially more difficult to access in case of emergency or routine works [ER 8.2.13].
- 6.5. The Applicant has considered alternatives to compulsory acquisition in its Statement of Reasons. It has referred to the detail provided in its ES for the reasons for the choice of landfall, onshore cable route and substation location. The Applicant considers the land required is necessary and appropriate and there are no other suitable alternatives [ER 8.6.2].
- 6.6. The ExA questioned the Applicant and Affected Parties in its first, second, third, fourth and fifth Written Questions, and made requests for further information and updates on the parties' positions [ER 8.5.1]. An agenda was published for the Compulsory Acquisition Hearing scheduled for 18 March 2020, but the hearing was cancelled to reflect Government guidance on the Coronavirus pandemic: the agenda was subsequently dealt with via a Rule 17 request and the third and fourth rounds of Written Questions [ER 8.5.1]. The Secretary of State is satisfied that this approach ensured no party was adversely affected.

Funding

- 6.7. The ExA reviewed the Funding information provided by the Applicant [ER 8.8.2]. It noted that the signed Funding Agreement with Vattenfall Wind Power Limited provided some certainty about funding for compulsory acquisition liabilities, but that specific values were not disclosed due to commercial sensitivity, and suggested the Secretary of State may wish to be satisfied that the requisite funding was secured and available to enable compulsory acquisition within the statutory period following the Order being made [ER 8.8.20]. The Secretary of State requested further information from the Applicant in his letter of 28 April 2021. The Applicant reiterated the comparative anticipated costs (£1.7m maximum for Scenario 1 and £6.8m for Scenario 2), explained that 85% of the Heads of Terms with landowners were signed (meaning the funding would not come via compulsory acquisition and the Funding Agreement), that Option Agreement negotiations for the freehold of the substations at Necton were anticipated to conclude shortly, and that if costs exceed the

£6.8m cap in the Funding Agreement these would be funded in the same way as the wider project [Applicant's Response to the Request for further information, June 2021, pp24-26]. On the basis of the Applicant's response the Secretary of State is satisfied sufficient funding will be made available to meet the compulsory acquisition liabilities.

Crown land

6.8. The cable landfall at Happisburgh involves Crown Land below the mean low water mark [ER 8.14.1]. The Crown Estate has granted consent under section 135(1) of the 2008 Act [ER 8.14.5]. The ExA was satisfied the wording of the draft DCO at the end of the Examination remained as agreed by The Crown Estate [ER 8.14.6] and that the test in section 135 of the 2008 Act applied [ER 8.14.7]. The Secretary of State agrees.

National Trust land

6.9. The cable export route passes through inalienable land on the National Trust's Blickling Estate [ER 8.14.9]. At Deadline 2 the National Trust withdrew its objection, indicating it did not consider that there were any unresolved matters [ER 8.14.11]. The ExA concluded section 130 of the 2008 Act regarding special parliamentary procedures for inalienable land does not apply [ER 8.14.13 et seq.]. The Secretary of State agrees.

Open Space land

6.10. Two categories of open space land are affected – the beach and foreshore at the export cable landfall at Happisburgh South, and the crossing of the Marriott's Way long distance footpath [ER 8.14.15]. No surface works are proposed at either location [ER 8.14.20]. The ExA welcomed the Applicant's cautious approach to the interpretation of open space in the light of advice within NPS EN-1 paragraph 5.10.1 that "... open space should be taken to mean all open space of public value" [ER 8.14.22]. The local authorities in the two affected areas did not raise concerns, nor did the Water Management Alliance or the Norfolk Rivers Internal Drainage Board [ER 8.14.23]. There were no representation relating to the installation of equipment, inspection and maintenance across the beach and foreshore, or the use of trenchless crossing techniques at the Marriott's Way [ER 8.14.24]. The ExA agreed that the land would not be less advantageous as a result of the works and that section 132(3) of the 2008 Act applied [ER 8.14.26 et seq.]. The Secretary of State agrees.

Highways England land

6.11. Part of the Application involves the construction of a permanent access connecting Works 8A, 10A and 10B to the A47 [ER 8.14.28]. Necessary licences and property agreements for works would be sought once detailed designs and method statements was approved by Highways England prior to construction [ER 8.14.32]. Highways England agreed with the Applicant's approach [ER 8.14.32]. The ExA noted there were no areas of disagreement between the parties [ER 8.14.33], and was satisfied there was agreement to include Highways England land within the Order [ER 8.14.34]. The Secretary of State agrees.

Statutory Undertakers

6.12. The Secretary of State notes the application includes powers of compulsory acquisition in respect of statutory undertakers and Protective Provisions were sought with a number of statutory undertakers.

6.13. The Secretary of State notes that the publication of the Norfolk Vanguard Order led to changes in the protective provisions for several statutory undertakers. These are considered in relation to each party so affected, but as the Norfolk Vanguard Order has been quashed the Secretary of State has considered the wording only insofar as it represents an agreed wording between the parties that the parties have asked to be maintained in the Norfolk Boreas Order (if made).

National Grid

6.14. The ExA was satisfied section 127 is engaged and the rights sought can be purchased without serious detriment to the undertaking [ER 8.15.14]. The ExA was satisfied that removal of apparatus would be necessary to carry out the Development and that the recommended DCO accords with section 138 of the 2008 Act [ER 8.15.15]. By letter of 15 May 2021 in response to the Secretary of State's consultation letter of 28 April 2021 National Grid confirmed that it had agreed protective provisions with the Applicant.

Network Rail

6.15. Network Rail withdrew its representation following the agreement of protective provisions and the conclusion of commercial arrangements with the Applicant [ER 8.15.19 and 20]. Further amendments in favour of Network Rail were made in light of the Norfolk Vanguard Order and although the Applicant confirmed that Network Rail was in agreement with these changes Network Rail did not agree or disagree with this position [ER 8.15.21]. Network Rail was consulted in the consultation letter of 28 April 2021, and confirmed, by letter of 28 April 2021 that the protective provisions in the final draft DCO, submitted at Deadline 18, were as agreed between Network Rail and the Applicant. The ExA was satisfied that section 127 is engaged and that the rights sought can be purchased without serious detriment [ER 8.15.22]. The ExA was satisfied that no apparatus removal was required and that consequently section 138 did not apply [ER 8.15.23].

Cadent Gas Limited

6.16. Cadent gas formally withdrew its objection following the agreement of protective provisions and the agreement of commercial terms [ER 8.15.27]. The ExA was satisfied section 127 is engaged and the rights sought can be purchased without serious detriment to the carrying on of the undertaking [ER 8.15.28]. The Secretary of State agrees.

UK Power Networks

6.17. UK Power Networks did not submit a representation, and the Applicant confirmed agreement was reached [ER 8.15.30]. The ExA considered that section 127 applied and that the compulsory acquisition rights sought could be purchased without serious detriment to the undertaking [ER 8.15.31]. The ExA considered section 138 would be necessary for the purposes of carrying out the Development [ER 8.15.32]. The Secretary of State agrees.

Anglian Water Services Limited

6.18. The Protective Provisions were updated to reflect the version in the Norfolk Vanguard Order [ER 8.15.35]. Anglian Water confirmed it was content with these provisions [ER 8.15.36]. The ExA was satisfied section 127 was engaged and the compulsory acquisition rights sought could be purchased without serious detriment to the carrying on of the undertaking

[ER 8.15.37]. The ExA considered section 138 would be necessary for the purposes of carrying out the Development [ER 8.15.38]. The Secretary of State agrees.

The Environment Agency and drainage authorities

- 6.19. The EA reached agreement over the wording of Protective Provisions [ER 8.15.43]. The ExA suggested the Secretary of State may wish to receive direct confirmation from the EA that it had reached agreement [ER 8.15.43], and the EA confirmed this position in response to the Secretary of State's consultation letter of 28 April 2021. The ExA was satisfied section 127 is engaged and the compulsory acquisition rights sought can be purchased without serious detriment to the carrying on of the undertaking [ER 8.15.44]. The Secretary of State agrees.

Mid Norfolk Railway Preservation Trust

- 6.20. By virtue of the Mid Norfolk Railways Order 2001, the Mid Norfolk Railway Preservation Trust is a statutory undertaker [ER 8.15.45]. The work would be a trenchless crossing point with no surface works, and consequently the Applicant did not consider protective provisions were necessary [ER 8.15.49 and 8.15.52]. Following agreement in principle on commercial terms the Mid Norfolk Railway Preservation Trust withdrew its representation [ER 8.15.54]. The ExA was satisfied section 127 is engaged and the compulsory acquisition rights sought can be purchased without serious detriment to the carrying on of the undertaking, that no removal of apparatus would be necessary and that therefore section 138 was not engaged [ER 8.15.55]. The Secretary of State agrees.

Other undertakers

- 6.21. The ExA did not receive representations from TC Dudgeon OFTO Plc, Blue Transmission Sheringham Shoal Limited, British Telecommunications plc, Water Management Alliance, British Pipeline Agency Limited, or Vodafone Limited [ER 8.15.58]. The ExA was satisfied that section 127 applied and the compulsory acquisition rights sought could be purchased without serious detriment to the carrying on of the undertaking, that the removal of apparatus would be necessary for the purposes of the Development and that consequently section 138 applied [ER 8.15.60 et seq.]. The Secretary of State agrees.

Other parties

Joint Objection from the National Farmers Union and the Land Interest Group

- 6.22. Approximately 60 clients were represented by the NFU and the LIG (consisting of several land agents) ("NFU/LIG"). An identically worded joint relevant representation was submitted on behalf of 35 of their clients [ER 8.16.5 et seq.], 23 of whom subsequently made no further representations to the Examination [ER 8.16.8]. These objectors did not respond to the ExA's request for an update on their position in its second round of Written Questions [ER 8.16.9].
- 6.23. The ExA considered the Applicant had demonstrated ongoing dialogue between the parties to reach a negotiated agreement, but concluded that although the objectors had not made any further representations they had not withdrawn their objections [ER 8.16.12].
- 6.24. The ExA concluded the onshore cable corridor route was chosen in light of the general effects from compulsory acquisition and temporary possession, and was satisfied that interference with the land and rights of objectors represented by that NFU/LIG would be justified. It was satisfied any adverse effects could be dealt with via compensation. It

recommended that compulsory acquisition and temporary use powers could be granted in relation to these objectors [ER 8.16.14 et seq.]. The Secretary of State agrees.

Access issues

6.25. Twelve representations related to access issues. Nine were covered by the standard NFU/LIG relevant representation. Three separate representations covered two parties, both of whom were represented by the NFU/LIG [ER 8.16.16]. The ExA requested an update from all these objectors in its second Written Questions, but none did so [ER 8.16.52 & 53]. The ExA considered the Applicant had provided extensive evidence of ongoing dialogue to seek a negotiated agreement [ER 8.16.55]. It concluded that in the absence of concluded Options Agreements between the parties the agreement of Heads of Terms (where these were signed by both parties) could not be relied upon in concluding whether an objection existed to the power sought [ER 8.16.57]. The ExA considered that even where alternative access was agreed that retention of the compulsory acquisition powers would ensure a fall back in the event that unknown third party rights surfaced [ER 8.16.59]. The ExA concluded compulsory acquisition and temporary possession powers could be granted in relation to these parties [ER 8.16.60].

Objectors not represented by the NFU/LIG

Brown & Co on behalf of Necton Farms Limited

6.26. The Applicant sought to acquire rights under two Option Agreements (i) for the proposed onshore substation areas and the National Grid substation extension, and (ii) cable easement rights. Heads of Terms were agreed for the substations, but had yet to be agreed for the cable easements as National Grid and TC Dudgeon OFTO plc were also involved. The Applicant confirmed it had agreed to purchase additional land in the vicinity of the substations to leave practical, workable field edges and avoid any awkward residues or unworkable parcels of land post-construction, and confirmed it would purchase additional land in the event that the cable easement left any unworkable or impractical to farm residual land parcel. The agreement provided for the landowner to be compensated for the overall reduction in the farm holding, including any effect this would have on the operation of the remaining farm holding. Access provisions were agreed to enable Necton Farms Ltd to continue to farm the unit throughout the construction period and to ensure that the access routes did not hinder the farming operation. Necton Farms Ltd (or its agent) did not respond to the information provided by the Applicant [ER 8.16.69 et seq.].

6.27. The ExA considered the Applicant's detailed response addressed the concerns of the objector and was satisfied with the Applicant's case in relation to its approach to the location and construction of the substations and the consideration of alternative sites raised by Interested Parties. The ExA was satisfied with the general land take in the light of the general effects of compulsory acquisition and temporary possession, and that the interference with the land and rights would be necessary for the Development. The ExA advised that the compulsory acquisition and temporary possession powers could be granted [ER 8.16.98 et seq.]. The Secretary of State agrees.

Paul King

6.28. Paul King raised concerns about the potential impact on his caravan and motorhome club site and potential devaluation of that property [ER 8.16.77]. The campsite is not within the Order Limits [ER 8.16.78]. The ExA concluded the matter related only to compensation,

which is outside its consideration under the 2008 Act, and compensation mechanisms exist to address any proven effects on property. [ER 8.16.101 et seq.] The ExA was satisfied interference with the objector's land and rights was necessary, and compulsory acquisition and temporary possession powers could be granted [ER 8.16.101 et seq.]. The Secretary of State agrees.

Colin King

6.29. Colin King objected to the compulsory acquisition of easement rights over a number of specific plots relating to land for the Necton substation [ER 8.16.81]. The owner's title listed historic third party rights, but the area of land over which these rights exist was not known. The Land Registry confirmed there was no plan available to show the precise locations referred to [ER 8.16.82]. The Applicant stated that if Mr King was able to provide evidence of the type of rights it would seek to acquire them by agreement, or otherwise by any compulsory purchase powers awarded [ER 8.16.83]. The ExA was satisfied that the Applicant was diligent in trying to identify all existing rights and accepted that the uncertainty meant agreement was not possible, but was satisfied that if the conveyance was found that the situation could be reviewed and compulsory acquisition powers might not be needed [ER 8.16.105 et seq.]. The ExA was satisfied that landowners would not be prejudiced as the impact of the acquisition of their land has been considered and they have 6 years from the date of vesting to agree compensation and apply to the Upper Tribunal (Lands Chamber) for a hearing, which ensured a fair trial in line with Article 6 of the European Convention on Human Rights [ER 8.16.107]. The ExA was satisfied compulsory acquisition and temporary possession powers could be granted [ER 8.16.108]. The Secretary of State agrees.

Clan Farms

6.30. Clan Farms' concerns related to access provisions, after-care of the land and compensation [ER 8.16.86]. Heads of Terms were agreed and the Applicant was negotiating to agree an occupier's consent including compensation payable [ER 8.16.87]. The ExA was satisfied compensation mechanisms exist to address adverse effects on the property, although these are outside the ExA's consideration under the 2008 Act [ER 8.16.110]. The ExA considered compulsory acquisition powers could be granted [ER 8.16.111]. The Secretary of State agrees.

Gorgate Limited

6.31. Gorgate Limited did not submit representations. The Applicant confirmed matters were resolved and Heads of Terms were agreed and signed [ER 8.16.88]. The ExA was satisfied any proven adverse effects could be compensated [ER 8.16.112]. The ExA considered compulsory acquisition and temporary possession powers could be granted [ER 8.16.113]. The Secretary of State agrees.

Christian Henry Allhusen and Penelope Amanda Allhusen and Bradenham Hall Farms

6.32. These parties were concerned about future access for large machinery to an adjacent land parcel [ER 8.16.90]. The Applicants offered to secure this through private agreement [ER 8.16.89]. Heads of Terms were agreed and discussions were underway on an Option Agreement [ER 8.16.92 et seq.]. The ExA was satisfied the effects of compulsory acquisition were considered in the Applicant's approach to the substation, that interference with land

and rights was necessary, and that compulsory acquisition powers could be granted [ER 8.16.116 et seq.]. The Secretary of State agrees.

Christian Henry Allhusen, Penelope Amanda Allhusen, William Patrick Durlacher, Bartholomew Guy Peerless

6.33. The ExA noted that Heads of Term were agreed and signed [ER 8.16.95]. The ExA was satisfied that compulsory acquisition powers could be granted [ER 8.16.118]. The Secretary of State agrees.

Category 3 Parties

6.34. These are parties who have no legal interest in the land but may be affected by construction or use of the works [ER 8.16.119]. Ten Relevant Representations were submitted [ER 8.16.120]. The ExA considered appropriate compensation mechanisms are in place via section 10 of the Compulsory Purchase Act 1965 or Part 1 of the Land Compensation Act 1973 [ER 8.16.121]. The Secretary of State agrees.

General conclusions on compulsory acquisition

6.35. In each case the ExA concluded compulsory acquisition powers were required in relation to the operation and maintenance of the substations or the cable export corridor. It concluded private losses to the Affected Parties would be outweighed by the public benefits from the Development, there was a compelling case in the public interest to grant the compulsory acquisition powers and the tests set out in sections 122(2) and 122(3) of the 2008 Act were satisfied. The Secretary of State agrees.

6.36. In the case of statutory undertakers, the ExA concluded that the tests in sections 127 and 128 of the 2008 Act were satisfied [ER 8.15.14, 8.15.22, 8.15.28, 8.15.31, 8.15.37, 8.15.44, 8.15.55]. The Secretary of State agrees.

Human Rights considerations

6.37. In relation to the proposals for compulsory acquisition and temporary possession of land and rights over land, the ExA is satisfied that: the Examination ensured a fair and public hearing; any interference with human rights arising from implementation of the Development is proportionate and strikes a fair balance between the rights of the individual and the public interest; and that compensation would be available in respect of any quantifiable loss. The Secretary of State agrees with the ExA's conclusion that there is no disproportionate or unjustified interference with human rights so as to conflict with the provisions of the Human Rights Act 1998.

Overall Conclusion on Compulsory Acquisition

6.38. Because the ExA concluded development consent should not be granted, it consequently considered the compelling case in the public interest for the land to be acquired compulsorily had not been made out. However, it was mindful the Secretary of State might conclude development consent should be granted and examined the case for compulsory acquisition and temporary possession on that basis. 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 Development should be granted, there is a compelling case in the public

interest to grant compulsory acquisition and temporary possession powers to facilitate the Development.

7. The Secretary of State's Consideration of the Planning Balance

- 7.1. The ExA considered all the merits and disbenefits of the Development and concluded that on the planning balance the case for development had not been made and that the adverse impact of the Development would outweigh its benefits [ER 7.4.11].
- 7.2. Because of the existence of three relevant NPSs (EN-1 – Overarching NPS for Energy, NPS for Renewable Energy Infrastructure (EN-3), and EN-5 – Electricity Networks Infrastructure), 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:
- (a) any local impact report (within the meaning given by section 60(3)),
 - (b) any matters prescribed in relation to development of the description to which the application relates, and
 - (c) any other matters which the Secretary of State thinks are both important and relevant to the decision.
- 7.3. 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 the Overarching NPS for Energy (EN-1) and its significant contribution towards satisfying the need for offshore wind [ER 7.2.6]. He further notes that the ExA has identified that the 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 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 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.
- 7.4. The Secretary of State notes that there are adverse effects identified by the ExA in respect of traffic and transportation (medium weight against); landscape and visual effects (medium weight against); onshore construction effects (medium weight against); noise and vibration (little weight against); water resources and flood risk (little weight against); land use and agriculture (little weight against); physical and mental health (little weight against); benthic ecology (substantial weight against); marine mammals (little weight against); offshore ornithology (substantial weight against); marine biodiversity, biological environment and ecology (substantial weight against); commercial fisheries and fishing (little weight); cumulative and combined effects (medium weight against).
- 7.5. The Secretary of State has reviewed the weighting suggested by the ExA and disagrees with the ExA on landscape and visual effects, considering that there should be substantial weight against granting the Order (compared with the ExA's conclusion of medium weight against). In particular, this conclusion takes account of the significant cumulative landscape and visual effects in the event of Scenario 1 when compared against the existing baseline.

- 7.6. In relation to heritage matters, the Secretary of State has noted the risk that the slight visibility of the onshore project substations would have an indirect effect on the setting of the Church of St. Andrew Bradenham and accords that risk considerable importance and weight despite the ExA's conclusion that any adverse effects would be non-significant in EIA terms following mitigation. But in light of the public benefit of the proposed Development, the Secretary of State considers that matters relating to onshore archaeology and cultural heritage do not provide a justification not to make the Order.
- 7.7. In addition, the Secretary of State has decided to accord very little weight against the granting of the Order due to the risk of fire and terrorism at the Necton substation.
- 7.8. The Secretary of State has considered all the merits and disbenefits of the Development, including the new weighting accorded to cumulative landscape and visual impacts, and concluded that, on balance, the benefits of the Development, in particular its contribution of 1.8GW of renewable electricity to the urgent need to decarbonise the electricity supply, outweigh its substantial negative impacts.

8. General Considerations

Equality Act 2010

- 8.1. The Equality Act 2010 includes a public sector "general equality duty" ("PSED"). This requires public authorities to have due regard in the exercise of their functions to the need to eliminate unlawful discrimination, harassment and victimisation and any other conduct prohibited under the Act; advance equality of opportunity between people who share a protected characteristic and those who do not; and foster good relations between people who share a protected characteristic and those who do not in respect of the following "protected characteristics": age; gender; gender reassignment; disability; marriage and civil partnerships³⁹; pregnancy and maternity; religion and belief; and race.
- 8.2. In considering this matter, the Secretary of State (as decision-maker) must pay due regard to the aims of the PSED. This must consideration of all potential equality impacts highlighted during the Examination.
- 8.3. The Secretary of State has had due regard to this duty and has not identified any parties with a protected characteristic that might be discriminated against as a result of the Development.

Natural Environment and Rural Communities Act 2006

- 8.4. 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.
- 8.5. 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

³⁹ In respect of the first statutory objective (eliminating unlawful discrimination etc.) only.

the decision to give consent to the Development, the Secretary of State has had due regard to conserving biodiversity.

9. Other Matters

- 9.1. The Secretary of State notes that other consents, licences, and permits are likely to be required to construct and operate the Development, and has no reason to believe that the relevant approvals would also not be forthcoming [ER 5.21.30 and 9.6.1].

10. Representations Received After the Close of the Examination

- 10.1. The Planning Inspectorate received three items of correspondence after the close of the Examination. These have been supplied to the Secretary of State, who 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.
- 10.2. The Secretary of State also received correspondence as a result of consultations relating to procedural matters following the High Court's decision to quash the Norfolk Vanguard consent, and in response to consultations relating to the redetermination of the Norfolk Vanguard Project. The Secretary of State issued consultation requests for further information on 28 April 2021, 9 July 2021, and 22 September 2021. The Secretary of State has carefully considered these matters, and where relevant has integrated the information provided within this decision letter. Such provisions have been clearly identified within the text of this decision letter. All consultation responses have been published on the Norfolk Boreas project page on the Planning Inspectorate's website⁴⁰.

11. Secretary of State's Conclusions and Decision

- 11.1. For the reasons given in this letter, the Secretary of State considers that there is a strong case for granting development consent for the Norfolk Boreas 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 Development's substantial adverse impacts, as mitigated by the proposed terms of the Order.
- 11.2. The Secretary of State has therefore, in the light of information received following receipt of the ExA's Report, decided not to follow the ExA's recommendation not to make the Order [ER 7.4.11], and instead to make the Order granting development consent to include modifications set out below in section 12 below. In reaching this decision, the Secretary of State confirms regard has been given to the ExA's Report, the LIRs submitted by Norfolk CC, Breckland Council, Broadland DC, and North Norfolk DC, 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 Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 that the environmental information as defined in regulation 2(1) of those Regulations has been taken into consideration.

⁴⁰ <https://infrastructure.planninginspectorate.gov.uk/projects/eastern/norfolk-boreas/>

12. Modifications to the Order by the Secretary of State

12.1. 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 the definitions in Article 2(1) (Interpretation):
 - i. limiting the definition of “authorised development” to the description in Part 1 of Schedule 1;
 - ii. omission of the “Norfolk Vanguard DCO” definition and amendments to the “Norfolk Vanguard Offshore Wind Farm” definition to reflect the current position regarding the Norfolk Vanguard application. These changes are also reflected in the deemed marine licence provisions in Schedules 9 to 13; and
 - iii. those amendments referred to at paragraph (g)(i) below.
- b. Amendments to Article 5 (Power to maintain authorised project) to clarify that the undertaker has the power to maintain (rather than construct and maintain) the authorised project. The power to carry out the development is given by Article 3.
- c. Amendments to Article 6 (Benefit of the Order) to clarify that the Secretary of State requires 14 (rather than 5) days’ notice of any transfer of benefit of the Order.
- d. Amendments to Article 15 (Discharge of water and works to watercourses) to clarify the notice period for providing consent or approval for the discharge of water into any watercourse, public sewer or drain or undertaking works to watercourses. An equivalent amendment was made in para 73(3)(b) of Schedule 17.
- e. 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). Also, to remove the term “temporary” and to add a sub-paragraph for mitigation works at paragraph (4). It appears that only those works specified in the sub-paragraphs of Article 26(4) are to remain after the undertaker gives up temporary possession and the removal of the term “temporary” confirms this.
- f. The inclusion of provision for service of documents at Article 43 (Service of Notices).
- g. Amendments to Schedule 1 (Authorised Project) (and the accompanying definitions in Article 2(1) (Interpretation)) to reduce the landscape and visual impacts of the Norfolk Boreas project alone or cumulatively with the Norfolk Vanguard project (if consented). These are:
 - i. The inclusion of new definitions for the “Norfolk Vanguard Onshore Project Substation” and the “OPS Masterplan” (the Onshore Project Substation Masterplan) in Article 2(1) (Interpretation).
 - ii. Amendments to Requirement 15 of Schedule 1 to clarify that the undertaker may only exercise compulsory acquisition powers in relation to Scenario 1 or Scenario 2 (paragraph (1)) and that those powers may not be exercised until notification has been submitted to the relevant planning authority regarding the Scenario that the

undertaker is choosing to pursue (and whether the onshore transmission works will be constructed in one or two phases).

- iii. Amendments to Requirement 16 of Schedule 1 to provide that where the Applicant proceeds with Scenario 1 the design details to be supplied to the local planning authority in relation to the substation must: (a) be supported by a statement illustrating how these accord with the principles of the OPS Masterplan; (b) have been informed by a strategic approach to mitigating cumulative impacts arising from the substation and the Norfolk Vanguard Onshore Project Substation; and (c) be accompanied by the outcomes from the early independent design review.
- iv. Amendment to Requirement 19 of Schedule 1 to provide that any trees, hedges or shrubs used to screen the onshore project substation (and/or the Norfolk Vanguard Onshore Project Substation in the event of Scenario 1) that need to be removed due to damage or disease within a period of 25 years after planting, must be replaced.
- h. Amendment at paragraph 33 of Schedule 1 to clarify that no stage of the onshore transmission works may commence until a skills and employment strategy has been submitted to and approved in writing by Norfolk County Council (irrespective of which scenario is pursued).
- i. Inclusion of paragraph 3 in Schedule 7 (Modification of compensation and compulsory purchase enactments for creation of new rights) to modify section 5A(5A) of the Land Compensation Act 1961.
- j. Inclusion of paragraph 23 of Part 4 of Schedule 9 (Deemed Licence under the 2009 Act – Generation Assets (Licence 1 – Phase 1)) and Schedule 10 (Deemed Licence under the 2009 Act – Generation Assets (Licence 2 – Phase 2)), which requires the undertaker to submit a close out report to the MMO and the relevant statutory nature conservation body after which no further construction under the relevant marine licence can take place.
- k. Amendments to paragraph 7 of Schedule 15 (Arbitration Rules) to provide that any arbitration hearing and documentation shall be open to and accessible by the public.
- l. Amendments to Schedule 19 (Compensation to protect the coherence of the national site network) to ensure that appropriate compensation measures can be secured and delivered in accordance with the requirements of the Habitats Regulations. These amendments can be summarised as follows:
 - i. Part 1 (Flamborough and Filey Coast SPA: Delivery of measures to compensate for kittiwake loss): provision for a kittiwake steering group and inclusion of a requirement for a plan for their work to be submitted and approved by the Secretary of State before the authorised development commences. Inclusion of a requirement to consult the kittiwake steering group on the kittiwake implementation and monitoring plan. Removal of the conditionality for the construction of artificial nest structures and inclusion of a requirement that the wind farm cannot begin to operate until four full breeding seasons following the implementation of the compensatory measures for kittiwake have elapsed. Amendments to the list of requirements for the kittiwake implementation and monitoring plan, for example details of landowner agreements demonstrating how the land will be bought or leased, details of the design of the artificial nest structures and the implementation timetable, details of the factors used

to trigger alternative compensation measures and/or adaptive management measures, details for annual reporting to the Secretary of State (to include details of the number of birds colonising the site), details of how natal dispersal and colony interchange with the FFC kittiwake colony should be investigated and minutes of consultations with the kittiwake steering group. Inclusion of a requirement for the undertaker to notify the Secretary of State of completion of implementation of the measures. As part of the annual submission of monitoring reports to the Secretary of State, the inclusion of a requirement for details of any finding that the measures have been ineffective to be included together with proposals to address this. Inclusion of a requirement that the nest structures shall be maintained beyond the operational lifetime of the authorised development if they are colonised.

- ii. Part 2 (Alde-Ore Estuary Special Protection Area: Delivery of measures to compensate for the loss of lesser black-backed gull): provision for a lesser black-backed gull steering group and inclusion of a requirement for a plan for their work to be submitted and approved by the Secretary of State before the authorised development commences. Inclusion of a requirement to consult the lesser black-backed gull steering group on the lesser black-backed gull implementation and monitoring plan. Removal of the conditionality for the predator control measures and inclusion of a requirement that the wind farm cannot begin to operate until four full breeding seasons following the implementation of the compensatory measures for lesser black-backed gull have elapsed. Inclusion of a list of requirements for the lesser black-backed gull implementation and monitoring plan, for example details of landowner agreements demonstrating how the land will be bought or leased, details of the design of the predator control fencing and details of any other habitat management measures, the implementation timetable and minutes from consultations with the lesser black-backed gull steering group. Inclusion of a requirement for the undertaker to notify the Secretary of State of completion of implementation of the measures. As part of the annual submission of monitoring reports to the Secretary of State, the inclusion of a requirement for details of any finding that the measures have been ineffective to be included together with proposals to address this. Inclusion of a requirement that the predator control fencing shall be maintained beyond the operational lifetime of the authorised development if the site is colonised.
- iii. Part 3 (Haisborough, Hammond and Winterton Special Area of Conservation: Delivery of measures to compensate for cable installation and protection): Provision for a benthic steering group who will shape and inform the scope and delivery of the benthic implementation and monitoring plan and inclusion of a requirement for a plan for their work to be submitted and approved by the Secretary of State before the authorised development commences. Inclusion of a requirement to consult the steering group on the benthic implementation and monitoring plan. Requirement for the undertaker to meet and report to the steering group at least annually. Removal of the conditionality for the compensatory measures and a requirement for them to be provided in advance (i.e. no cable installation works within the SAC may be commenced unless 8.3 hectares of marine debris removal has been completed). Inclusion of a list of requirements for the benthic implementation and monitoring plan, for example: to provide details of the location, nature and size of material to be removed from the SAC (which should equate to a minimum of 8.3 hectares); to provide for a programme of works for the marine debris removal; to provide success criteria, adaptive management measures, details of alternative search areas if 8.3

hectares of marine debris cannot be recovered from the SAC itself and details of further marine debris removal that might be carried out if the actual effects of cable installation and protection are greater than anticipated; to provide details of a programme for delivery of education, awareness and facilities to limit further marine debris; to provide details of how all impacts to reef habitats within designated sites will be avoided; and to provide details of the locations for the disposal of dredged material (and evidence that the disposal mechanism will allow sediment to be retained within the sandbank system and avoid impacts to other features, particularly reef habitats). As part of the annual submission of monitoring reports to the Secretary of State, the inclusion of a requirement for details of any finding that the measures have been ineffective to be included together with proposals to address this.

12.2. In addition to the above, 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.

13. Challenge to decision

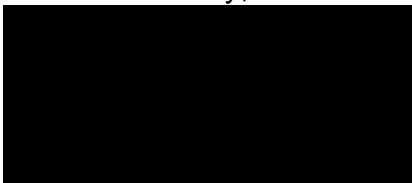
13.1. The circumstances in which the Secretary of State's decision may be challenged are set out in the Annex to this letter.

14. Publicity for decision

14.1. The Secretary of State's decision on this Application is being publicised as required by section 116 of the Planning Act 2008 and regulation 31 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

14.2. 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/norfolk-boreas/>

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).

ANNEX B: LIST OF ABBREVIATIONS

Abbreviation	Reference
AA	Appropriate Assessment
ALO	Agricultural Liaison Officer
CA	Compulsory Acquisition
CC	County Council
CIA	Cumulative Impact Assessment
CoCP	Code of Construction Practice
DAS	Design and Access Statement
DC	District Council
DCO	Development Consent Order
DML	Deemed Marine Licence
EA	The Environment Agency
EIA	Environmental Impact Assessment
EMF	Electro-Magnetic Field
ER	Examining Authority's Report
ES	Environmental Statement
ESO	Electricity System Operator
ExA	The Examining Authority
FLOWW	Fishing Liaison with Offshore Wind and Wet Renewables Group
HBMCE	Historic Buildings and Monuments Commission for England
HDD	Horizontal Directional Drilling
HGV	Heavy Good Vehicle
HRA	Habitats Regulations Assessment
HIS	Highway Intervention Scheme
HMS	Highway Management Scheme
HRA	Habitats Regulations Assessment
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
ICNIRP	International Commission of Non-Ionizing Radiation Protection
IROPI	Imperative Reasons of Overriding Public Interest
JNCC	Joint Nature Conservation Committee
LIDAR	Light Detection and Ranging
LIG	The Land Interest Group
LIR	Local Impact Report
LMS	Landscaping Management Scheme
LSE	Likely Significant Effect
LVIA	Landscape and Visual Impact Assessment
MA	Mobilisation Area
MCA	Maritime and Coastguard Agency
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
MMO	Marine Management Organisation
MW	Megawatt

Abbreviation	Reference
NE	Natural England
NFFO	National Federation of Fishermen's Organisations
NFU	National Farmers Union
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NRP	Nature Recovery Project
NSR	Noise Sensitive Receptor
OCoCP	Outline Code of Construction Practice
OLEMS	Outline Landscape and Ecological Management Strategy
OPS	Onshore Project Substation
OTMP	Outline Traffic Management Plan
PC	Parish Council
PHE	Public Health England
The 2008 Act	The Planning Act 2008
PSED	Public Sector Equality Duty
RIES	Report on the Implications for European Sites
RSPB	The Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SPA	Special Protection Area
SoS	The Secretary of State
SSSI	Site of Special Scientific Interest