



The Planning Inspectorate
Yr Arolygiaeth Gynllunio

The Planning Act 2008

Hornsea Project Four Offshore Wind Farm

Examining Authority's Report
of Findings and Conclusions

and

Recommendation to the Secretary of State for
Business, Energy & Industrial Strategy

VOLUME 1

Examining Authority

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22 November 2022

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OVERVIEW

File Ref: EN010098

The application, dated 22 September 2021, was made under section 37 of the Planning Act 2008 and was received in full by The Planning Inspectorate on 29 September 2021.

The applicant is Ørsted Hornsea Project Four Limited.

The application was accepted for Examination on 26 October 2021.

The examination of the application began on 22 February 2022 and was completed on 22 August 2022.

The Proposed Development comprises:

- The construction and operation of an array of up to 180 wind turbines and their foundations.
- The construction of up to six offshore transformer substations.
- In the event that the mode of transmissions would be High Voltage Direct Current (HVDC), up to three HVDC convertor substations or in the event that the mode of transmission would be High Voltage Alternating Current (HVAC), up to three offshore HVAC booster stations.
- One offshore accommodation platform.
- The construction of a network of subsea electrical circuits connecting the wind turbines, offshore collector substations, offshore HVDC convertor stations and offshore accommodation platforms.
- The construction of a marine connection to the shore, consisting of up to six subsea electrical circuits which may connect with the offshore HVAC booster station(s), and the mode of transmission of which may be HVAC or HVDC, running in a westerly direction from the south westerly boundary of the proposed array to the proposed landfall at east of Fraisthorpe, East Riding of Yorkshire including cable and pipeline crossing works.
- The Hornsea Four offshore Export Cable Corridor (ECC) would extend from the proposed landfall east of Fraisthorpe, in the East Riding of Yorkshire, offshore in an easterly direction to the Hornsea Four array area. The offshore ECC would be approximately 109 kilometres (km) in length and 1.5km in width typically with an additional 500 metres (m) either side for temporary works).
- At landfall, the offshore export cables would be joined to onshore export cables at up to six underground transition joint bays. There would be up to six onshore export circuits buried in up to six trenches connecting to an Onshore Substation (OnSS) to allow the power to be transferred to the National Grid via the existing Creyke Beck National Grid Electricity Transmission Plc (NGET) 400 kilovolt(kV) substation.
- The proposed permanent development area for the OnSS would be located north of Cottingham with the nearest southeast corner approximately 175m west of the NGET substation.
- The construction of up to six underground transmission electrical circuits, running in a south westerly direction for approximately 40km, which would connect the underground electrical circuit transmission joint bays in the vicinity of Fraisthorpe to the OnSS.

- The construction of an OnSS and Energy Balancing Infrastructure (EBI) with associated facilities in the vicinity of Creyke Beck, north of Cottingham.
- The construction of a connection consisting of up to four underground electrical circuits between the OnSS and the NGET substation at Creyke Beck.

Summary of Recommendation:

The Examining Authority recommends that the Secretary of State should withhold consent. If however the Secretary of State decides to give consent, then the Examining Authority recommends that the Order should be in the form attached.

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ERRATA SHEET – Hornsea Project Four- Ref. EN010098

Examining Authority’s Report of Findings and Conclusions and Recommendation to the Secretary of State for the Department of Business, Energy and Industrial Strategy (now Energy Security and Net Zero), dated 22 November 2022.

Corrections agreed by the Examining Authority prior to a decision being made.

Vol	PDF Page No.	Para	Error	Correction
vol 2	213	para 12.4.18	Taking all of this into account, the ExA concludes that the overall effects on geology and ground conditions would either alone or cumulatively weigh not weigh against the case for the Proposed Development.	Taking all of this into account, the ExA concludes that the overall effects on geology and ground conditions would either alone or cumulatively not weigh against the case for the Proposed Development.
3	266	Third row in table 17.1	Reference in report is wrong	Should refer to paragraphs 16.8.38 to 16.8.43
3	267	First row in table 17.2	Reference in report is wrong	Should refer to paragraphs 16.8.23 to 16.8.35
3	267	Second row in table 17.2	Reference in report is wrong	Should refer to paragraphs 16.8.44 to 16.8.54

1. INTRODUCTION

1.1. INTRODUCTION TO THE EXAMINATION

1.1.1. The application for the Hornsea Project Four Offshore Wind Farm (the Proposed Development) EN010098 was submitted by Ørsted Hornsea Project Four Limited (the Applicant) to the Planning Inspectorate on 22 September 2021 under section (s) 31 of the Planning Act 2008 (PA2008) and accepted for Examination under s55 of the PA2008 on 26 October 2021 [PD-001].

1.1.2. The Proposed Development comprises:

- The construction and operation of an array of up to 180 wind turbines and their foundations.
- The construction of up to six offshore transformer substations.
- In the event that the mode of transmission would be High Voltage Direct Current (HVDC), up to three HVDC convertor substations or, in the event that the mode of transmission would be High Voltage Alternating Current (HVAC), up to three offshore HVAC booster stations.
- One offshore accommodation platform.
- The construction of a network of subsea electrical circuits connecting the wind turbines, offshore collector substations, offshore HVDC convertor stations and offshore accommodation platforms.
- The construction of a marine connection to the shore, consisting of up to six subsea electrical circuits, which may connect with the offshore HVAC booster station(s), and the mode of transmission of which may be HVAC or HVDC. It would run in a westerly direction from the south-westerly boundary of the proposed array to the proposed landfall east of Fraisthorpe, East Riding of Yorkshire, and would include cable and pipeline crossing works. This offshore Export Cable Corridor (ECC) would be approximately 109 kilometres (km) in length and 1.5km in width, typically with an additional 500 metres (m) either side for temporary works.
- At landfall, the offshore export cables would be joined to onshore export cables at up to six underground transition joint bays. There would be up to six onshore export circuits buried in up to six trenches running in a south westerly direction for approximately 40km and connecting to an Onshore Substation (OnSS) to allow the power to be transferred to the National Grid via the existing Creyke Beck National Grid Electricity Transmission Plc (NGET) 400 kilovolt(kV) substation.
- The construction of an OnSS and Energy Balancing Infrastructure (EBI) with associated facilities in the vicinity of Creyke Beck, north of Cottingham, with its nearest, south-east corner approximately 175m west of the NGET substation.
- The construction of a connection consisting of up to four underground electrical circuits between the OnSS and the NGET substation at Creyke Beck.

1.1.3. The location of the Proposed Development is shown in the Environmental Statement (ES) [APP-007, Figure 1.3] and Land Plans [APP-210]. The

onshore elements of the site lie within the administrative area of the East Riding of Yorkshire and are wholly in England.

1.1.4. The legislative tests for whether the Proposed Development is a Nationally Significant Infrastructure Project (NSIP) were considered by the Secretary of State (SoS) for the Department of Levelling Up, Housing and Communities in the decision to accept the application for Examination in accordance with s55 of the PA2008 [PD-001].

1.1.5. On this basis, the Planning Inspectorate agreed with the Applicant's view on the application form [APP-004] that the Proposed Development is a NSIP, as it is a project which consists of the construction and operation of a generating station with an export capacity of more than 100 Megawatts (MW) and so requires development consent in accordance with s31 of the PA2008. The Proposed Development therefore meets the definition of a NSIP set out in s14(1)(a) and s15(3) of the PA2008.

1.2. APPOINTMENT OF THE EXAMINING AUTHORITY

1.2.1. On 6 January 2022, Stephen Bradley, Jo Dowling, Gavin Jones, Rod MacArthur and Andrew Mahon were appointed as the Examining Authority (ExA) for the application under s61 and s65 of the PA2008 [PD-004].

1.3. THE PERSONS INVOLVED IN THE EXAMINATION

1.3.1. The persons involved in the Examination were:

- Persons who were entitled to be Interested Parties (IPs) because they had made a Relevant Representation (RR) or were a statutory party who requested to become an IP.
- Affected Persons (APs) who were affected by a compulsory acquisition (CA) or temporary possession (TP) proposal made as part of the application and objected to it at any stage in the Examination.
- Other Persons, who were invited to participate in the Examination by the ExA because they were either affected by it in some other relevant way or because they had particular expertise or evidence that the ExA considered to be necessary to inform the Examination.

1.4. THE EXAMINATION AND PROCEDURAL DECISIONS

1.4.1. The Examination began on 22 February 2022 and concluded on 22 August 2022.

1.4.2. The principal components of and events around the Examination are summarised below. A fuller description, timescales and dates can be found on the Examination timetable page of the project webpage on the Planning Inspectorate National Infrastructure website (the Inspectorate's website)¹.

¹ <https://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-the-humber/hornsea-project-four-offshore-wind-farm/>

The Preliminary Meeting

- 1.4.3. On 24 January 2022, the ExA wrote to all IPs, APs, Statutory Parties and Other Persons under Rule 6 of the Infrastructure Planning (Examination Procedure) Rules 2010 (EPR) (The Rule 6 Letter) inviting them to the Preliminary Meeting (PM) [PD-005], outlining:
- the arrangements and agenda for the PM;
 - an Initial Assessment of Principal Issues;
 - the draft Examination Timetable;
 - availability of RRs and application documents; and
 - the ExA's procedural decisions.
- 1.4.4. The PM took place on 22 February 2022 virtually on MS Teams. A digital recording [EV-003] and a note of the meeting [EV-005] were published on the Inspectorate's website.
- 1.4.5. The ExA's procedural decisions and the Examination Timetable took full account of matters raised at the PM. They were provided in the Rule 8 Letter [PD-007], dated 28 February 2022.

Key procedural decisions

- 1.4.6. The procedural decisions set out in the Rule 8 Letter related to matters that were confined to the procedure of the Examination and did not bear on the ExA's consideration of the planning merits of the Proposed Development. Further, they were generally complied with by the Applicant and relevant IPs. The decisions can be obtained from the Rule 8 Letter [PD-007] and so there is no need to reiterate them here.

Site inspections

- 1.4.7. Site inspections are held in PA2008 Examinations to ensure that the ExA has an adequate understanding of the Proposed Development within its site and surroundings and its physical and spatial effects.
- 1.4.8. Where the matters for inspection can be viewed from the public domain and there are no other considerations such as personal safety or the need for the identification of relevant features or processes, an Unaccompanied Site Inspection (USI) is held. Where an inspection must be made on land requiring consent to access, there are safety or other technical considerations or there are requests made to accompany an inspection, an Accompanied Site Inspection (ASI) is held.
- 1.4.9. The ExA held the following USIs:
- USI1, 9 February 2022 [EV-001]; and
 - USI2, 10 February 2022 [EV-002].
- A site note providing a procedural record of each USI can be found in the Examination Library under the above references.
- 1.4.10. At Deadline (D)1, the ExA requested the submission of suggested sites for it to visit on either an unaccompanied basis or as part of an ASI if one

was required. The ExA did not receive any requests to hold an ASI. Having confirmed this at the close of Issue Specific Hearing (ISH) 6 [EV-029], the ExA was satisfied that, if required, any further inspections could be carried out on an unaccompanied or access only basis. As a result, the ExA made the procedural decision [PD-010] to not hold an ASI and the Examination Timetable was amended to reflect this.

1.4.11. The ExA has had regard to the information and impressions obtained during its site inspections in all relevant sections of this Report.

Hearing processes

1.4.12. Hearings are held in PA2008 Examinations in two main circumstances:

- To respond to specific requests from persons who have a right to be heard - in summary terms:
 - where persons affected by CA or TP proposals (APs) object and request to be heard at a Compulsory Acquisition Hearing (CAH); or
 - where IPs request to be heard at an Open Floor Hearing (OFH).
- To address matters where the ExA considers that a hearing is necessary to inquire orally into matters under examination, typically because they are complex, there is an element of contention or disagreement, or the application of relevant law or policy is not clear.

1.4.13. The ExA held a number of hearings to ensure the thorough examination of the issues raised by the application.

1.4.14. ISHs under s91 of the PA2008 were held as virtual events.

1.4.15. ISHs were held on the subject matter of the draft Development Consent Order (draft DCO) on:

- ISH1, 12 April 2022 [EV-008]; and
- ISH7, 18 July 2022 [EV-031].

1.4.16. ISHs were held on the following environmental matters:

- ISH2, onshore environmental matters, 26 April 2022 [EV-010];
- ISH3, offshore environmental matters, 26 April 2022 [EV-011];
- ISH4, marine environment (excluding ornithology), 27 April 2022 [EV-027];
- ISH5, marine and coastal ornithology, 28 April 2022 [EV-028];
- ISH6, Habitats Regulations Assessment, 29 April 2022 [EV-029];
- ISH8, onshore environmental matters, 19 July 2022 [EV-032];
- ISH9, offshore environmental matters, 19 July 2022 [EV-033];
- ISH10, marine processes and ecology, excluding ornithology, 20 July 2022 [EV-034];
- ISH11, marine ornithology, 21 July 2022 [EV-035]; and
- ISH12, Habitats Regulation Assessment, 22 July 2022 [EV-036].

1.4.17. A CAH was held virtually under s92 of the PA2008 on 13 April 2022 (CAH1) [EV-009]. A second CAH had been timetabled for 19 July 2022. However, given the small numbers of matters relating to CA that were

outstanding after D5a, the ExA cancelled the CAH in favour of a written request under Rule 17 of the Infrastructure Planning (Examination Procedure) Rules 2010 [PD-014].

- 1.4.18. All persons affected by CA or TP proposals were provided with an opportunity to be heard. The ExA also used the Hearings to examine the Applicant's case for CA or TP in the round.
- 1.4.19. An OFH was held virtually under s93 of the PA2008 on the 11 April 2022 [EV-007]. The ExA is satisfied that all IPs were provided with an opportunity to be heard on any important and relevant subject matter that they wished to raise.

Written processes

- 1.4.20. Examination under the PA2008 is primarily a written process, in which the ExA has regard to written material forming the application and arising from the Examination. All of this material is recorded in the Examination Library (Appendix B) and published online. Individual document references to the Examination Library in this report are enclosed in square brackets []. For this reason, this Report does not contain extensive summaries of all documents and representations, although full regard has been had to them in the ExA's conclusions. The ExA has considered all important and relevant matters arising from them.
- 1.4.21. Key written sources are set out further below.

Relevant Representations

- 1.4.22. Forty-three RRs were received by the Planning Inspectorate [RR-001 to RR-043]. In addition, a late RR from Hull City Council was accepted as an additional submission [AS-001]. All makers of RRs received the Rule 6 Letter and were provided with an opportunity to become involved in the Examination as IPs. All RRs have been fully considered by the ExA. The issues that they raise are considered in Chapters 4 to 11 of this Report.

Written Representations and other Examination documents

- 1.4.23. The Applicant, IPs and Other Persons were provided with opportunities to:
- make Written Representations (WR) (D2);
 - comment on WRs made by the Applicant and other IPs (D3);
 - summarise their oral submissions at Hearings in writing (D3, D4 and D6);
 - make other written submissions requested or accepted by the ExA; and
 - comment on documents issued for consultation by the ExA including:
 - a Report on Implications for European Sites (RIES) [PD-015] published on 28 July 2022 by D8; and
 - a commentary on the draft DCO [PD-016] published on 28 July 2022 by D7.

- 1.4.24. All WRs and other Examination documents have been fully considered by the ExA. The issues that they raise are considered in Chapters 4 to 11 of this Report.

Local Impact Report

- 1.4.25. A Local Impact Report (LIR) is a report made by a relevant local authority giving details of the likely impact of the Proposed Development on the authority's area (or any part of that area) that has been invited and submitted to the ExA under s60 of the PA2008.
- 1.4.26. One LIR was received by the ExA from East Riding of Yorkshire Council (ERYC) [REP1-074]. The LIR has been taken fully into account by the ExA in all relevant Chapters of this Report.

Statements of Common Ground, Letters of Comfort and Position Statements

- 1.4.27. A Statement of Common Ground (SoCG) is a statement agreed between the applicant and one or more IPs, recording matters that are agreed between them.
- 1.4.28. By the end of the Examination, the following bodies had concluded signed SoCGs with the Applicant:
- ERYC [REP7-060];
 - Natural England: Derogation Matters [REP7-061];
 - Natural England: Onshore Matters [REP7-062];
 - Natural England: Other Offshore Matters [REP7-068];
 - Natural England: Offshore and Intertidal Ornithology [REP7-071];
 - Environment Agency [REP7-067];
 - Historic England [REP7-069];
 - The Marine Management Organisation [REP8-004];
 - UK Chamber of Shipping [REP7-072];
 - The Royal Society for the Protection of Birds: Offshore and Intertidal Ornithology, Derogation and Compensation [REP8-005];
 - The Maritime and Coastguard Agency [REP6-017];
 - The Ministry of Defence [REP6-018];
 - NATS (En Route) plc [REP6-019];
 - The Holderness Fishing Industry Group and the National Federation of Fishermen's Organisations [REP6-016]; and
 - Trinity House (TH) [REP5-054].

- 1.4.29. The following SoCGs remained unsigned at the end of the Examination:
- National Highways [APP-256]; and
 - The Wildlife Trusts [REP1-047].

- 1.4.30. In some instances, Letters of Comfort (LoC) and Positions Statements (PS) were prepared instead of SoCG. These were used where matters on which the parties remained in discussion were limited in scope (ie substantive matters were either agreed or could be considered post-consent through crossing or proximity agreements). A PS is substantively

the same as a SoCG but follows a different format to allow each party to identify the issues pertinent to their commercial interests and to determine the level of detail to put before the ExA pending the conclusion of any commercial discussions.

1.4.31. By the end of the Examination, the following organisations had submitted a signed PS:

- National Grid Interconnector Holdings Ltd [REP2-035]; and
- Northern Endurance Partnership/ BP Exploration Operating Company Ltd [REP1-057].

1.4.32. The following PSs remained unsigned at the end of the Examination:

- National Grid Gas PLC [REP3-016];
- NEO Energy (SNS) Ltd [REP2-051];
- Network Rail Infrastructure [REP1-051];
- National Grid Electricity Transmissions PLC [REP3-023];
- Northern Gas Networks Ltd [REP1-052]; and
- Northern Powergrid (Yorkshire) PLC [REP1-056].

1.4.33. However, with the exception of NEO Energy (SNS) Ltd, all of the other organisations whose PS remained unsigned had withdrawn their objection to the Proposed Development by the close of the Examination (National Grid Gas Plc and National Grid Electricity Transmissions PLC [AS-054], Network Rail Infrastructure Ltd [REP7-096], Northern Gas Networks Ltd [REP7-110] and Northern Powergrid (Yorkshire)PLC [REP6-064]).

1.4.34. Table 2 of the Statement of Commonality of Statements of Common Ground [REP1-060] submitted at D1 listed the following organisations with whom the Applicant was proposing to obtain a LoC:

- Alderney Wildlife Trust;
- Ocean Conservation Trust;
- Project Seagrass;
- States of Guernsey;
- States of Alderney;
- Yorkshire Wildlife Trust; and
- The Wildlife Trusts.

1.4.35. This was updated throughout the Examination and by the close of the Examination the following organisations had been added to Table 2 [REP8-006]:

- Perenco; and
- Bridge Petroleum.

1.4.36. At the close of the Examination [REP8-006] LoC had been received from:

- Alderney Wildlife Trust [REP2-013, Appendix A];
- The States of Guernsey [REP2-013, Appendix B];
- Ocean Conservation Trust [REP2-015, Appendix C];
- Project Seagrass [REP2-015, Appendix A];
- Yorkshire Wildlife Trust [REP2-015, Appendix B]; and

- The Wildlife Trusts [REP5-067].
- 1.4.37. The States of Guernsey also entered into a Memorandum of Understanding [AS-051] to explore the opportunities for carrying out a predator eradication programme, including ongoing monitoring and biosecurity for the lifetime of the proposed Development. The Memorandum of Understanding was completed in June 2022.
- 1.4.38. The Applicant proposed a Memorandum of Understanding rather than a LoC with the States of Alderney the Applicant to explore the opportunities for carrying out a predator eradication programme. The Applicant’s Schedule of Side Agreements submitted at the close of the Examination [AS-051] showed this to be outstanding but subject to on-going discussions.
- 1.4.39. The Statement of Commonality of Statements of Common Ground [REP8-006] recorded that agreement had been reached with Perenco and that protective provisions would no longer be required. This was confirmed by a joint notification letter received at D8 [REP8-019]. Agreement between the Applicant and Bridge Petroleum had not been reached before the close of the Examination.
- 1.4.40. The SoCGs, PSs and LoCs have been taken fully into account by the ExA in all relevant Chapters of this Report.

Written questions

- 1.4.41. The ExA asked two rounds of written questions:
- first written questions (ExQ1) [PD-006], dated 28 February 2022; and
 - further written questions (ExQ2) [PD-012], issued 30 May 2022.
- 1.4.42. Requests for further information and comments under Rule 17 of the EPR were issued on:
- 14 April 2022 [PD-008];
 - 3 May 2022[PD-009];
 - 19 May 2022[PD-010];
 - 25 July 2022 [PD-014];
 - 28 July 2022 [PD-017]; and
 - 11 August 2022[PD-018].
- 1.4.43. Following the ISH on the draft DCO (ISH1) on 14 April 2022 [PD-008] the ExA wrote to the Applicant and bp Exploration Operating Company Ltd (bp) setting out the timelines for the submission of legal submissions and supporting evidence from both parties regarding whether or not an Interface Agreement should be set aside.
- 1.4.44. On 3 May 2022 [PD-009], the ExA wrote to Natural England (NE) and the Marine Management Organisation (MMO) following its review of the responses submitted at D2 and D3 and following the oral representations and discussions at ISH4 [EV-027], ISH5 [EV-028] and ISH6 [EV-029].

- 1.4.45. In relation to the seabird baseline characterisation data and the use and interpretation of MRSea, NE [REP4-053] advised that, in its opinion, the original model-based estimates were not fit for purpose and could not be reliably used to inform the assessment of impacts in the Environmental Impact Assessment or the Report to Inform Appropriate Assessment, potential compensation requirements or future cumulative or in-combination assessments. To ensure that sufficient progress was made on these matters prior to the close of the Examination, NE suggested that a revised baseline would need to be agreed for key species and subsequent assessments undertaken for submission into the Examination at D5. On 19 May 2022 [PD-010], the ExA wrote to the Applicant requesting whether it intended to comply with this request and whether it would be completed by D5.
- 1.4.46. Following the ISHs that were held in July [EV-031 to EV-036], on the 25 July 2022 the ExA wrote to a number of APs on matters relating to CA that remained outstanding following D5a [PD-014]. In addition, a number of organisations [AS-037, AS-040 to AS-044, AS-046 and AS-047] had advised the ExA that they would not be attending the ISHs. In order to ensure that the ExA had all the information it needed to be able to write this Report, the ExA also highlighted the action points that had arisen from the ISHs where a response from one or more of these organisations was required. The ExA also asked for a response from NE to a question about recent Written Ministerial Statements in relation to river basin catchments that it would have asked at ISH8 [EV-032] had a representative attended, and from the RSPB and NE in relation to a recent Crown Estate publication [REP6-032] that was discussed at ISH12 [EV-036]. The ExA also confirmed, in response to an action point from ISH7 [EV-031a, action point 22], that any financial information submitted into the Examination in relation to compensation would be published in the Examination Library.
- 1.4.47. On 28 July 2022 [PD-017], the ExA wrote to the Applicant asking that NatureScot be directed to the summary information about the bottlenose dolphin qualifying feature of the Moray Firth Special Area of Conservation (SAC) in the RIES [Table 4.2, Moray Firth SAC Section, PD-015] and to verify that NatureScot agreed with the conclusions of the Applicant.
- 1.4.48. Following a review of documents submitted at D6 and an initial review of documents submitted at D7 on the 11 August 2022, the ExA had a number of requests for further information from the Applicant, NE and the Maritime and Coastguard Agency (MCA) [PD-018] including:
- whether an outbreak of Highly Pathogenic Avian Influenza had any implications for the assessments undertaken for this application;
 - what, if any, were the implications for this application of the potential designation of Inner Silver Pit South as a Highly Protected Marine Area;
 - a request for a map showing where the locations of sediment samples were taken;
 - clarification as to whether the two basic matrices for the breeding and non-breeding seasons for auks covered a full 12-month period, and if

the addition of a third matrix for the discrete post-breeding season (August and September) effectively duplicated consideration of data for those two months (ie double counting);

- confirmation that there would be only one bridge link overall;
- clarification as to whether the MCA was satisfied with the proposed air draught on the bridge link being from Lowest Astronomical Tide (LAT) (rather than Highest Astronomical Tide (HAT));
- confirmation that no Horizontal Directional Drilling (HDD) exit pits would be located landward of Mean Low Water (MLW) and whether the commitment to restricting HDD pits was below MLW or Mean Low Water Springs (MLWS);
- a request to update the schedule of side agreements [REP7-081] to clarify the state of progress with National Grid Viking Link Limited;
- a request for NE to comment on the proposed disapplication of s28E of the Wildlife and Countryside Act 1981 and a request for further justification from the Applicant for its inclusion;
- a request for the Applicant to justify further the inclusion of Articles 28(12) and 29(12) of the draft DCO [REP5a-002]; and
- a request for the Applicant to provide further detail as to how the average rate of inflation to 2030 was established [REP7-043].

1.4.49. All responses to ExQ1 and ExQ2 have been fully considered and taken into account in all relevant Chapters of this Report.

Requests to join and leave the Examination

1.4.50. The following parties were invited by the ExA to participate in the Examination prior to the PM:

- Ministry of Environment of Denmark;
- The Kingdom of Belgium; and
- Department of Housing, Local Government and Heritage, Ireland.

1.4.51. The following organisations requested to join the Examination prior to the PM:

- Holderness Fishing Industry Group [AS-025];
- bp Exploration Operating Company Limited [PDL-002]; and
- National Federation of Fishermen's Organisations [AS-026].

1.4.52. All these organisations were granted Other Person status for the purposes of the Examination.

1.4.53. In February 2022, after the PM, Outer Dowsing Offshore Wind Farm Ltd [REP1-081] was awarded Preferred Bidder status in the Crown Estate's Offshore Wind Leasing Round 4. As a result, it is progressing the development of a 1.5GW offshore windfarm, known as Outer Dowsing Offshore Wind (ODOW), in the southern North Sea region. Given the proximity of the project to the Proposed Development, the company submitted a request to be involved in the Examination. The ExA granted it Other Person status to enable it to participate in the Examination.

1.4.54. During the Examination, as a consequence of discussion at Hearings or discussions between relevant IPs, APs, Other Persons and the Applicant,

the following parties wrote to the ExA to confirm that their issues were settled, and their RRs were withdrawn:

- Network Rail Infrastructure Limited [RR-001] advised [REP7-096] that it had reached an agreement providing for, amongst other things, the inclusion and retention of Network Rail's protective provisions in the draft DCO and as a result withdrew its objection.
- The agents acting on behalf of Mr and Mrs Foreman [RR-005] advised [REP5-092] that, following discussions and negotiations with the Applicant's project team, their clients' concerns had been addressed and as a result they withdrew their objection.
- ERYC (Highways) [RR-008] raised concerns regarding potential implications for the A164 Castle Hill Roundabout to A164 Regiment Roundabout Classified Road (Side Roads) Order 2021 Compulsory Purchase Order (the Jocks Lodge Scheme). However, following completion of a co-operation agreement ERYC (Highways) withdrew its objection [REP7-095].
- Viking Link [RR-012] advised that following discussions a suitable commercial agreement was in the process of being reached and as a result it withdrew its objection to the application [AS-047].
- National Grid Electricity Transmission plc [RR-025] and National Grid Gas plc [RR-026] withdrew their objections to the application [AS-054].
- Northern Gas Networks Limited [RR-030] advised that following the completion of a crossing deed it withdrew its objection to the application [REP7-110].
- The agent on behalf of the Hotham Family Trust [RR-034] which holds an interest in the location of the compound at Lockington, withdrew their objection to the proposal [REP5-121].
- Northern Powergrid (Yorkshire) Plc advised [REP6-064] that it had reached agreement with the Applicant and therefore withdrew its objection [RR-042] to the Proposed Development.

1.5. ENVIRONMENTAL IMPACT ASSESSMENT

- 1.5.1. The Proposed Development is development for which an Environmental Impact Assessment (EIA) is required (EIA development).
- 1.5.2. On 15 October 2018, the Planning Inspectorate received a scoping request on behalf of the Secretary of State from the Applicant, under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, as amended (the EIA Regulations). This requested an opinion about the scope of an Environmental Statement (ES) that was to be prepared (a Scoping Opinion). It followed that the Applicant was deemed to have notified the Secretary of State under Regulation 6(2)(a) of the EIA Regulations that it proposed to provide an ES in respect of the Project.
- 1.5.3. The Planning Inspectorate, on behalf of the Secretary of State, provided a Scoping Opinion on 23 November 2018 [APP-235]. In accordance with Regulation 6(2)(a) of the EIA Regulations, the Proposed Development

was determined to be EIA development, and the application was accompanied by an ES.

- 1.5.4. On 17 December 2021 the Applicant provided the Planning Inspectorate with certificates confirming that s56 and s59 of the PA2008 and Regulation 13 of the EIA Regulations had been complied with [OD-006 to OD-008].
- 1.5.5. Consideration is given to the adequacy of the ES and matters arising from it in subsequent chapters of this Report, and especially Chapters 4 to 11.

1.6. HABITATS REGULATIONS ASSESSMENT

- 1.6.1. The Proposed Development is development for which Habitats Regulations Assessment (HRA) reports have been provided.
- 1.6.2. Consideration is given to the adequacy of the HRA reports, associated information and evidence and the matters arising from them in Chapter 13 of this Report.

1.7. UNDERTAKINGS, OBLIGATIONS AND AGREEMENTS

- 1.7.1. By the end of the Examination, there were no matters subject to any separate undertakings, obligations or agreements. All relevant considerations are addressed in this Report as bearing on the DCO.

1.8. OTHER CONSENTS

- 1.8.1. The application documentation and questions during the Examination identified the following consents that the Proposed Development has obtained or must obtain, in addition to Development Consent (including Marine Licensing) under the PA2008. These were set out in the Consents Management Plan [APP-233]. The Applicant confirmed at ISH7 [REP6-034, Point 35] that the Consents Management Plan did not require updating.
- 1.8.2. In addition to consents such as Crown Consent, which is covered in detail in Chapter 14 of this Report, the Applicant has identified that the following consents would be required or have been obtained:

Offshore consents:

- Decommissioning Scheme: s105(6) of the Energy Act 2004 would require the submission of a decommissioning programme to the Secretary of State prior to the commencement of the authorised development.
- Energy Generation Licence: The Gas and Electricity Markets Authority granted an electricity generation licence under s6(1)(a) of the Electricity Act 1989 on 21 September 2020.
- European Protected Species (EPS) Licence: Under the Conservation of Habitats and Species Regulations 2017, the Applicant would need to obtain an EPS licence post-consent in order to carry out activities that

might result in damage to, or destruction of EPS breeding sites or resting places or that could adversely affect an EPS.

- F10 – Notification of construction project: The Construction (Design and Management) Regulations 2015 require the Applicant to notify the Health and Safety Executive of the particulars of the project in advance of construction.
- Safety Zones: Under the Energy Act 2004 the Applicant would be required to make an application to the Department for Business Energy and Industrial Strategy where a safety zone is required.

Onshore consents:

- Building Regulations approval: if operational buildings within the OnSS are staffed they would not be covered by the exemption set out in the Building Regulations 2010; Regulation 9, Schedule 2; Exempt Buildings and Work – Class II; Buildings not frequented by people, and as a result may require Building Regulations approval. This would be sought post-consent.
- Environmental Permit for water discharge or waste operations/ registration of exempt waste operations and water discharge: An Environmental Permit may be required under the Environmental Permitting (England and Wales) Regulations 2016 for waste management activities and discharges to surface or groundwater. This would be sought post-consent if required.
- Flood Defence Consent: Flood Defence Consent may be required pursuant to the Environmental Permitting (England and Wales) Regulations 2016 and the land drainage byelaws from the Environment Agency for river and stream crossings along the ECC. If required these would be sought post-consent.
- Land Drainage Act 1991: if construction of the Proposed Development was to result in the obstruction of an ordinary watercourse, then consent under s23 of the Land Drainage Act 1991 would be required.
- Land Drainage Consent: Land Drainage Consent pursuant to the Land Drainage Act 1991 may be required for the crossing of drainage ditches along the ECC. If required, this would need to be sought post-consent from the Internal Drainage Board/ local authority.
- Water Abstraction Licence: if a contractor needs to abstract water during construction works then it would need to apply to the Environment Agency for a licence under the Water Resources Act 1991.
- Notice of Street Works: a permit under the Traffic Management Act 2004 may be required if there is a permit scheme operating for an affected street.
- Permit for transport of abnormal loads: most abnormal loads can be moved without the need for any permit or authorisation. However, if loads meet the exceptions then a permit under the Road Vehicles (Authorisation of Special Types)(General Order) 2003 would be required post-consent.
- Temporary Road Traffic Orders (TRTO): the DCO would enable the Applicant to temporarily stop up, alter or divert any street within the Order limits. However, if construction required the closure of any

public highway outside the Order limits, then a TRTO would need to be obtained.

- EPS Licence: under the Conservation of Habitats and Species Regulations 2017, depending on the final design of the Proposed Development, the Applicant may need to obtain an EPS Licence if activities associated with the Proposed Development might damage or destroy the breeding sites or resting places or could adversely affect an EPS.
- Wildlife and Countryside Act Licence: If construction activities were to interfere with protected species, then the Applicant would need to obtain a licence under s16 of the Wildlife and Countryside Act 1981.
- Licence for work affecting badgers: badgers and their setts benefit from protection under the Protection of Badgers Act 1992. If setts are identified in a pre-construction survey, and mitigation cannot be carried out, then the Applicant would need to apply for a licence to close or disturb the sett prior to the commencement of any works.

1.8.3. In addition, the ExA identified that the following consents would be required:

- Marine Licence: the Applicant confirmed at ISH7 [REP6-034, 4.9] that clearance of any unexploded ordnance would be the subject of a separate application for a marine licence and therefore the Applicant was not seeking such powers under the DCO.
- Kittiwake compensation: under the kittiwake compensation measures identified by the Applicant, either planning consent for an onshore nesting structure or a marine licence for the construction or repurposing of an offshore structure would be required. The repurposing of an offshore structure would also need approval from the Offshore Petroleum Regulator for Environment and Decommissioning in relation to any Statutory Decommissioning Programme, and potentially, amendment of any existing s29 notices issued under the Petroleum Act 1998.

1.8.4. Should the Secretary of State determine through an Appropriate Assessment that some or all of the without-prejudice compensation measures for other seabird species would be required then further consents in relation to these measures would be required. These would need to be identified post-consent as the design and location of any measures were developed further.

1.8.5. The ExA has considered the available information in relation to the outstanding consents recorded above. Without prejudice to the exercise of discretion by future decision makers, the ExA concludes that, should the Secretary of State make the Order, there are no apparent impediments to the implementation of the Proposed Development in regard to other consents that may be required, or, where outstanding matters do arise, these are addressed in the relevant Chapters of this Report.

1.9. STRUCTURE OF THIS REPORT

1.9.1. The structure of this Report is as follows:

VOLUME 1

- **Chapter 1** introduces the reader to the application, the processes used to carry out the Examination and make this Report.
- **Chapter 2** describes the site and its surrounds, the Proposed Development, its planning history and that of related projects.
- **Chapter 3** records the legal and policy context for the SoS's decision.
- **Chapter 4** sets out the planning issues that arose from the application and during the Examination.
- **Chapter 5** sets out the findings and conclusions in relation to need.
- **Chapter 6** sets out the findings and conclusions in relation to site selection and alternatives.

VOLUME 2

- **Chapter 7** sets out the findings and conclusions in relation to marine and coastal processes and sediments.
- **Chapter 8** sets out the findings and conclusions in relation to marine and coastal ornithology.
- **Chapter 9** sets out the findings and conclusions in relation to other marine ecology matters.
- **Chapter 10** sets out the findings and conclusions in relation to the Endurance Store
- **Chapter 11** sets out the findings and conclusions in relation to other marine planning issues.
- **Chapter 12** sets out the findings and conclusions in relation to onshore planning issues.

VOLUME 3

- **Chapter 13** considers effects on European Sites and the Habitats Regulations Assessment.
- **Chapter 14** sets out the balance of planning considerations arising from Chapters 4 to 13, in the light of the factual, legal and policy information in Chapters 1 to 3.
- **Chapter 15** sets out the ExA's examination of Compulsory Acquisition and Temporary Possession proposals.
- **Chapter 16** considers the implications of the matters arising from the preceding chapters for the Development Consent Order.
- **Chapter 17** summarises all relevant considerations and sets out the ExA's recommendation to the SoS.

1.9.2. This Report is supported by the following Appendices:

- **Appendix A** – The Examination Library.
- **Appendix B** – List of Abbreviations.
- **Appendix C** – The Recommended DCO.

2. THE PROPOSAL AND THE SITE

2.1. THE APPLICATION AS MADE

2.1.1. A full description of each of Works Nos. 1 to 10 that together comprise the Proposed Development is contained in Schedule 1, Part 1 of the draft Development Consent Order (DCO) [APP-203] plus a description of the Associated Development. However, as stated in section 5 of the Application Form, a brief, non-technical description of the Proposed Development [APP-004] is as follows:

"Hornsea Project Four is the fourth development proposed within the former Hornsea Zone. Hornsea Four will constitute an offshore generating station with a capacity greater than 100MW. The project will include all associated offshore and onshore infrastructure necessary for the generation and transmission of electricity.

"The Development Consent Order for Hornsea Four would authorise the construction and operation of up to 180 wind turbine generators. At landfall, the offshore export cables will be joined to onshore export cables at transition joint bays. There will be up to 6 onshore export circuits buried in up to six trenches connecting to an onshore substation to allow the power to be transferred to the National Grid via the existing Creyke Beck National Grid Energy Transmission (NGET) substation.

"The maximum design scenario will include the construction of up to six separate offshore transformer substations. All offshore transformer substations will be in the Hornsea Four array area.

"In order to deliver the power to the National Grid, Hornsea Four may use [high voltage alternating current] HVAC or [high voltage direct current] HVDC transmission or could use a combination of both technologies in separate electrical systems. The maximum number of offshore surface HVAC booster stations (which would only be used should HVAC technology be exploited) would be three or up to three offshore HVDC converter substation (sic) (HVDC only). Hornsea Four may construct one offshore accommodation platform in the array area.

"The offshore substation is located to the west of the NGET substation at Creyke Beck and includes all necessary electrical plant to meet the requirements of the National Grid. The onshore substation will have a maximum of two main buildings and a maximum of fifteen secondary buildings.

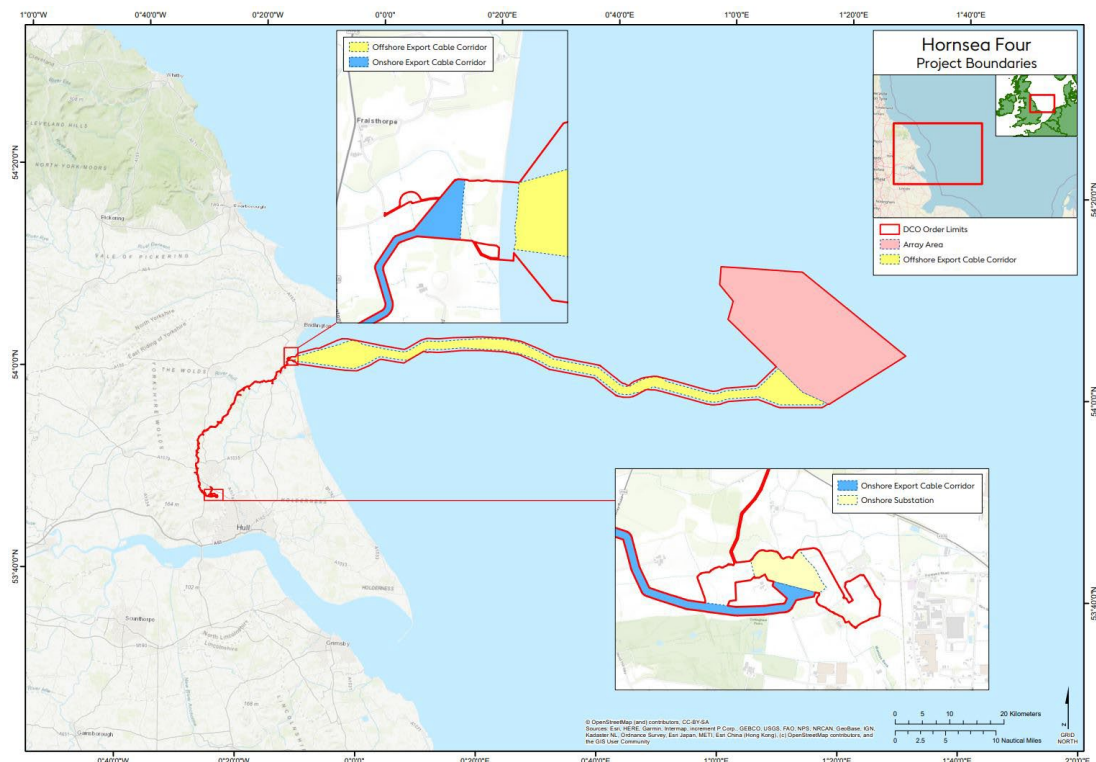
"Hornsea Four will incorporate Energy Balancing Infrastructure (EBI) and will include up to two separate EBI plants. EBI is proposed to be housed in single or multiple building(s), several containers, in an open yard or in a combination of the above. All energy balancing equipment will be housed wholly within the footprint of the onshore or offshore substations."

2.1.2. Section 6 of the Application Form [APP-004] provided a brief description of the location and route of the Proposed Development as follows:

"The Hornsea Four array area (i.e the area in which the offshore wind turbine generators are located) will be approximately 486km.sq and [at its closest point] will be located approximately 69 km due east of Flamborough Head off the Yorkshire Coast. The offshore export cables will make landfall east of Fraisthorpe. From landfall the underground onshore cables will connect to an onshore substation which will in turn connect to Creyke Beck NGET 400 kV Substation, which is located near Cottingham, Humberside."

- 2.1.3. A plan depicting the Hornsea Four project boundaries was included in the Environmental Statement Non-Technical Summary [APP-006, amended by AS-022]. This plan also indicated as inset boxes the Order limits for the landfall area and the onshore substation.

Figure 2.1 Hornsea Four project boundaries



- 2.1.4. As stated in ES Volume A1 Chapter 4: Project Description [APP-010, paragraph 4.2.4.2] the Proposed Development would have a maximum of 180 wind turbine generators (WTGs) but the total capacity has not been defined. However, it is anticipated to have a total capacity of approximately 2.6 Gigawatts (GW) [APP-204, paragraph 2.10.3].
- 2.1.5. Requirement 2 of the draft DCO [APP-203] set out the detailed offshore design parameters. These included, but were not limited to, the following:

- each WTG must not exceed a height of 370 metres (m) when measured from Lowest Astronomical Tide (LAT) to the tip of the vertical blade, must not exceed a rotor diameter of 305m, a maximum blade tip height of 370m above Lowest Astronomical Tide

(LAT) and must not be less than 42.43m above LAT to the lowest point of the rotating blade and must not be less than 810m from the nearest WTG in all directions; and

- the total number of offshore electrical installations and offshore accommodation platforms must not exceed ten, consisting of a combination of no more than: six small offshore transformer substations, three large offshore transformer substations, three offshore HVAC booster stations, six small HVDC converter stations, three large offshore HVDC converter stations and one offshore accommodation platform.

- 2.1.6. In addition, as stated in Work No. 1 of the draft DCO [APP-203], there would be a network of cables between the WTGs, and between the WTGs and Work No. 2, including crossings of cables and pipelines in the offshore export cable corridor (offshore ECC).
- 2.1.7. With reference to the onshore elements of the Proposed Development, as indicated in the Planning Statement [APP-229] the onshore export cable corridor (onshore ECC) would have an approximate maximum length of 39 kilometres (km) and would comprise an 80m onshore temporary easement, encompassing a 60m post-installation permanent easement. There would be 35 access points from the public highway to the onshore ECC and eight temporary logistics compounds (comprising one primary and seven secondary logistics compounds).
- 2.1.8. As set out in the Planning Statement the onshore substation (OnSS) would comprise a range of equipment including transformers, shunt reactors, dynamic reactive power compensation plant, harmonic filters and various switchgear. The equipment could be contained within either a single building or multiple buildings. If a single building was to be used, then the maximum parameters would be 25m in height, 240m in length and 80m in width [APP-229, paragraph 2.6.2.3]. In addition, up to two separate EBI plants could be constructed. The maximum parameters for the main EBI buildings would be 15m in height, 100m in length and 25m in width. The maximum design scenario for the secondary EBI building would be 20m in height, 40m in length and 40m in width [APP-229, paragraph 2.6.3.4].
- 2.1.9. An indicative construction programme was provided in Figure 1 of the Planning Statement [APP-229]. This indicated the anticipated construction timescales for the various elements of the Proposed Development. The Applicant has anticipated that the maximum construction duration for the entire Proposed Development would be 61 months.
- 2.1.10. As set out in the section 2 of the original Explanatory Memorandum [APP-204] there would be Associated Development for the purposes of section (s) 115 of Planning Act 2008 (PA2008) in connection with Works Nos. 1 to 10 of the Proposed Development. The Associated Development is set out in the draft DCO [APP-203].

2.2. THE APPLICATION AS EXAMINED

- 2.2.1. No change requests were made during the course of the Examination. A Project Description Schedule of Change, dated 14 January 2022, was issued by the Applicant [AS-006]. Table 1 listed the changes that had been made in relation to s51 advice regarding the EBI by removing the previous references to hydrogen electrolysis and confirming that the proposed substation would be onshore.
- 2.2.2. In terms of matters relating to changes that fell within the Rochdale envelope of the Proposed Development, and therefore for which a formal change request was not required, by the close of the Examination the Applicant had made the following amendments:
- reduction in the maximum number of gravity base structure foundations that could be installed for WTGs from 110 to 80 in total (Schedule 11, Part 2, Condition 1(8), [REP7-039]);
 - reduction in the maximum total seabed footprint area for WTG foundations to 302,180 square metres (m²) excluding scour protection and 985,240 m² including scour protection (Schedule 11, Part 2, Condition 1(6)(a) and 1(6)(b), [REP7-039]);
 - reduction in the maximum total volume of scour protection material for the WTG foundations to 1,582,040 cubic metres (m³) (Schedule 11, Part 2, Condition 1(7), [REP7-039]);
 - increase in the maximum amount of cable protection in Work No. 1(c) to 624,000 m² (Schedule 11, Part 2, Condition 3(1) [REP7-039]);
 - introduction of a requirement that a bridge link forming part of the authorised project must be installed at a minimum height of 20m when measured from LAT (Schedule 11, Part 2, Condition 2(7) [REP7-039]);
 - amendment to the definition of the maximum eastern extent of the temporary construction ramp (Work No. 9(d));
 - Changes to constraints on the locations of horizontal directional drilling (HDD) exit pits in relation to Mean Low Water; and
 - minor amendments to the minimum separation distance between the Proposed Development and the Hornsea Two offshore wind farm.

2.3. RELEVANT PLANNING HISTORY

- 2.3.1. A number of offshore wind farms are either located or proposed off the south-east to north-east coast of Great Britain. Some of these offshore wind farms have been fully constructed and are operational, some are currently in the process of being constructed and others have been consented, but construction work has not yet commenced.
- 2.3.2. In terms of onshore planning applications, during the course of the Examination reference was made by the Applicant and East Riding of Yorkshire Council (ERYC) to the Jock's Lodge Highway Improvement Scheme. At Deadline (D) 2 the Applicant submitted a 'Plan showing interaction between ERYC Jock's Lodge CPO boundary and Hornsea Project Four Order Limits' [REP2-056]. This issue is considered further in Chapter 12 of the Report.

3. LEGAL AND POLICY CONTEXT

3.1. INTRODUCTION

- 3.1.1. This Chapter sets out the main relevant legal and policy context for the application. It outlines the legislation and policy context considered and applied by the Examining Authority (ExA) in carrying out the Examination and in making its findings and recommendations to the Secretary of State (SoS).
- 3.1.2. The Planning Statement [APP-229, Chapter 5] set out the policy position in relation to the Proposed Development, and Chapter 2 of the ES contained a section setting out the overarching environmental legislation, policy and guidance [APP-008]. Individual chapters of the ES provided specific policy background relating to relevant topics.
- 3.1.3. The Local Impact Report (LIR) [REP1-074] set out the local authority's position on applicable development plan policies and other local strategies.

3.2. PLANNING ACT 2008

- 3.2.1. The application is for a Development Consent Order (DCO) under the Planning Act 2008 (PA2008). The application is for a Nationally Significant Infrastructure Project (NSIP) because the Proposed Development is located in England or in waters in or adjacent to England and would be an offshore generating station with capacity of greater than 100MW. The Proposed Development therefore meets the definition of an NSIP as set out in section (s) 14(1)(a) and s15(3) of the PA2008 and so requires development consent in accordance with section 31 of the PA2008.
- 3.2.2. This is an application for which there are relevant National Policy Statements (NPSs) to be considered. The application is therefore examined under Section 104(3) of the PA2008 which sets out the matters the SoS must consider as follows:
- any NPS which has effect in relation to development of the description to which the application relates (s104(2)(a));
 - any relevant marine policy documents, determined in accordance with section 59 of the Marine and Coastal Access Act (s104(2)(aa));
 - any local impact report submitted to the SoS before the specified deadline (s104(2)(b));
 - any matters prescribed in relation to development of the description to which the application relates (section 104(2)(c)); and
 - any other matters to which the SoS thinks are both important and relevant to the decision (section 104(2)(d)).
- 3.2.3. Section 104(3) of the PA2008 requires the SoS to decide the application in accordance with any relevant NPS, except to the extent that one or more of the exceptions in subsections (4) to (8) applies. The exceptions are that the SoS is satisfied that:

- Deciding the application in accordance with any relevant NPS would lead to the United Kingdom being in breach of its international obligations (subsection (4)).
- Deciding the application in accordance with any relevant NPS would lead to the SoS being in breach of any duty imposed on the SoS by or under any enactment (subsection (5)).
- Deciding the application in accordance with any relevant NPS would be unlawful by virtue of any enactment (subsection (6)).
- The adverse impact of the Proposed Development would outweigh its benefits (subsection (7)). and
- Any condition prescribed for deciding an application otherwise than in accordance with a NPS is met (subsection (8)).

3.2.4. This Report sets out the ExA's findings and recommendations taking these matters into account and applying the approach that is set out in s104 of the PA2008.

3.3. NATIONAL POLICY STATEMENTS

3.3.1. The National Policy Statements (NPSs) that are relevant in this case are:

- Overarching National Policy Statement for Energy (July 2011) (NPS EN-1);
- National Policy Statement for Renewable Energy Infrastructure (July 2011) (NPS EN-3); and
- National Policy Statement for Electricity Networks Infrastructure (July 2011) (NPS EN-5).

3.3.2. NPS EN-1 sets out the overarching policy in relation to NSIPs. The remaining energy NPSs should be read in conjunction with NPS EN-1 where they are relevant.

3.3.3. NPS EN-3 sets out additional policy, specific to renewable energy projects, which for offshore wind includes any project over 100 Megawatt (MW) capacity. Paragraph 2.1.1 of NPS EN-3 states that: "*The policies set out in this NPS are additional to those on generic impacts set out in EN-1 and do not replace them.*"

3.3.4. NPS EN-5 sets out policy relevant to electricity transmission and distribution systems, from transmission systems to the end user. Whilst principally focussing on long distance transmission and distribution systems, it also covers substations and converter stations. Paragraph 1.8.2 of NPS EN-5 notes that it can cover development that: "*constitutes associated development for which consent is sought along with an NSIP such as a generating station or relevant overhead line.*"

3.3.5. The Government are currently undertaking a review of the Energy NPSs. While this review is being undertaken the current suite of NPSs remains relevant Government policy and NPS EN-1 to EN-5 have effect for the purposes of the PA2008. The SoS² has decided that for any application

² Planning for New Energy Infrastructure, Draft National Policy Statements for energy infrastructure (September 2021)

accepted for examination before designation of the amendments of the NPS, the original suite of NPSs should have effect. The review advised that the amended NPSs would therefore only have effect in relation to those applications for development consent accepted for examination after their designation.

3.4. MARINE AND COASTAL ACCESS ACT 2009

3.4.1. The Marine and Coastal Access Act 2009 introduced the production of marine plans and the designation of Marine Conservation Zones (MCZs) in United Kingdom waters.

3.4.2. Under section 104(2)(aa) of the PA2008 the SoS must have regard to: *"... the appropriate marine policy documents (if any) determined in accordance with section 59 of the Marine and Coastal Access Act 2009."*

UK Marine Policy Statement

3.4.3. In regard to the Proposed Development the relevant marine policy documents are the UK Marine Policy Statement (UKMPS) and the East Inshore and East Offshore Marine Plans (EIEOMP). Also, although the proposed landfall would be approximately 15km south of the North East Inshore Marine Plan area, nevertheless the North East Marine Plan is a relevant consideration in regard to shipping and navigation considerations for the Proposed Development.

3.4.4. The UKMPS provides the high-level policy context within which marine plans are developed, implemented and monitored. It provides the overarching policy context for the ExA's consideration of the offshore works and the deemed marine licences (DMLs) that would be created by the DCO, if made.

East Inshore and East Offshore Marine Plans

3.4.5. The EIEOMP were adopted in April 2014. As noted in the Planning Statement [APP-229] the East Inshore Marine Plan includes the area of sea stretching from Flamborough Head to Felixstowe and extends out to the seaward limit of the territorial sea, ie 12 nautical miles (nm). The East Offshore Marine Plan extends from the seaward limit of the territorial sea to the boundary of the UK Exclusive Economic Zone.

3.4.6. The EIEOMP contain objectives and policies that must be taken into consideration. The policies in the EIEOMP elaborate on the ten objectives and cover the following matters: economic growth and employment benefits; renewable energy; conservation of the marine ecosystem; protection and recovery of biodiversity; support for communities; support for Marine Protected Areas; support for climate change adaptation and mitigation; and integration with other plans.

Marine Conservation Zones

3.4.7. The Proposed Development does not overlap spatially with any MCZs. The nearest MCZs are the Holderness Offshore MCZ which lies 0.75km

from the closest part of the Proposed Development and the Holderness Inshore MCZ which lies 4.5km from the nearest part of the Proposed Development [APP-014, Table 2.8, amended by AS-007].

3.5. EUROPEAN LAW AND RELATED UK REGULATIONS

EU Retained Law

- 3.5.1. The UK left the European Union (EU) as a Member State on 31 January 2020. The European Union (Withdrawal Agreement) Act of January 2020 gave effect to the transition arrangements until 31 December 2020. This provided for EU law to be retained as UK law unless excepted, and to bring into effect obligations which may come into force during the transition period which has now ended. This Report has been prepared on the basis of retained law. It will be a matter for the Secretary of State to satisfy themselves as to the position on retained law, obligations and equivalent terms at the point of decision. However, as much of the retained law is derived from primary EU legislation this section also gives summaries of the relevant EU legislation to provide context.

The EIA Directive

- 3.5.2. EU Council Directive 2011/92/EU (the EIA Directive), on the assessment of the effects of certain public and private projects on the environment, defines the procedure by which information about the environmental effects of a project is collated by the developer and taken into account by the relevant decision maker. The Proposed Development falls to be considered under the UK legislation related to 2011/92/EU; ie The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

- 3.5.3. The Proposed Development falls within Schedule 2, paragraph 3(i) of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 EIA Regulations). The location, scale and nature of the Proposed Development may have the potential to give rise to significant environmental effects and is considered to be Environmental Impact Assessment (EIA) development. The DCO application is therefore required to be accompanied by an Environmental Statement (ES). The Applicant has provided an ES [APP-007] to [APP-128] as part of the submitted application.

The Habitats Directive

- 3.5.4. EU Directive 92/43/EEC on the conservation of natural habitats and wild fauna and flora (the Habitats Directive), is a European nature conservation policy measure. It provides for a network of protected sites, now incorporated for the UK into the National Site Network, and a system of species protection.

- 3.5.5. Under the terms of the Bern Convention and the Convention of Biological Diversity the EU and the UK have obligations to conserve a range of natural habitats and associated flora and fauna. These obligations are met through the Habitats Directive. This requires the identification and designations of Special Areas of Conservations for habitats that are listed in Annex I and species that are listed in Annex II (which are referred to as 'European protected species').

The Birds Directive

- 3.5.6. The EU and the UK have obligations for the protection of wild birds and their habitats as agreed under the Ramsar Convention, Bern Convention and Bonn Convention. These obligations, together with more general duties, are met through Directive 2009/147/EC on the conservation of wild birds (the Birds Directive). This requires the identification and designation of Special Protection Areas, which have now been incorporated into nationally protected sites.

The Conservation of Habitats and Species Regulations 2017 and the Conservation of Offshore Marine Habitats and Species Regulations 2017

- 3.5.7. In England and Wales the Conservation of Habitats and Species Regulations 2017, as amended, (SI 2017/1012) (the Habitats Regulations) consolidated earlier legislation and transposed the obligations of the Habitats Directive and the Birds Directive into domestic legislation.
- 3.5.8. The Habitats Regulations and the Conservation of Offshore Marine Habitats and Species Habitats and Species Regulations 2017 as amended (the Offshore Marine Regulations) govern the assessment processes that must be undertaken in relation to European sites and Ramsar sites and the Proposed Development, referred to as Habitats Regulations Assessment (HRA). The Secretary of State as the decision maker is the competent authority for the HRA.
- 3.5.9. On 24 February 2021, Defra published the guidance, 'Habitats regulations assessments: protecting a European site' to assist competent authorities, and the Examining Authority has had regard to this in preparing this Report for the Secretary of State.
- 3.5.10. The protected sites relevant to this process are those protected by the Habitats Regulations (Special Areas of Conservations (SACs), Special Protection Areas (SPAs), Sites of Community Importance (SCIs) and candidate Special Areas of Conservation (cSACs)) and those given equivalent status by national planning policy (possible SACS (pSACS), potential SPAs (pSPAs), listed Ramsar sites and proposed Ramsar sites for which the UK is responsible). Areas secured as sites compensating for damage to a European site also require a HRA under Government policy.
- 3.5.11. Chapter 13 of this Report sets out full details of the HRA that would be required for the Proposed Development

The Conservation of Habitats and Species (Amendment)(EU Exit) Regulations 2019

- 3.5.12. These Regulations came into force in December 2020 and reflect the arrangements in light of the UK's departure from the EU. This includes the introduction of new terminology with reference to the National Site Network rather than the Natura 2000 Network, which remains the collective term for sites in the EU.

The Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2017

- 3.5.13. The Offshore Marine Conservation (Natural Habitats, & c.) Regulations 2017 transpose the Habitats Directive and the Birds Directive into UK law. These Regulations apply to the UK's offshore marine area which covers waters beyond 12nm within British Fishery Limits and the seabed within the UK Continental Shelf Designated Area.

Ramsar Convention 1971

- 3.5.14. Ramsar sites comprise wetlands of international importance, as listed under the Ramsar Convention. The main aim of the Ramsar Convention is the conservation and wise use of all wetlands.

The Water Framework Directive

- 3.5.15. Directive 2000/60/EC (the Water Framework Directive) establishes a framework for action in the field of water policy and sets objectives to prevent and reduce pollution, improve aquatic ecosystems and mitigate the effects of floods. The Water Framework Directive is transposed into law in England and Wales by The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017. Among other matters, these Regulations require the 'appropriate agency' to prepare river basin management plans for each River Basin District.

The Air Quality Directive

- 3.5.16. Council Directive 2008/50/EC on ambient air quality and cleaner air for Europe (the Air Quality Directive) requires Member States to assess ambient air quality with respect to sulphur dioxide (SO₂), nitrogen dioxide (NO₂), oxides of nitrogen (NO_x), particulate matter (PM₁₀ and PM_{2.5}), lead, benzene, carbon monoxide and ozone. It sets legally binding concentration-based limit values as well as target values to be achieved for the main air pollutants and establishes control actions where these are exceeded. The Air Quality Directive is transposed into UK law through the Air Quality Standards Regulations 2010 made under the Environment Act 1995.

The UK Air Quality Strategy

- 3.5.17. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland 2007 establishes the framework for air quality improvements by

setting out air quality objectives and policy options to further improve air quality in the UK. Individual plans prepared under its framework provide more detailed actions to address limit value exceedances for individual pollutants. In turn, these plans set the framework for action in specific local settings where limit value exceedances are found, including the designation of Clean Air Zones and more localised Air Quality Management Areas where Air Quality Management Plans are prepared by local authorities.

The Climate Change Act 2008 (as amended) and Carbon Budget Order 2021

- 3.5.18. The Climate Change Act 2008, as amended by the Climate Change Act 2008 (2050 Target Amendment) Order 2019, established the world's first long-term, legally binding framework to tackle the dangers of climate change. It sets statutory climate change projections and carbon budgets. A key provision is the setting of legally binding targets for greenhouse gas emission reductions in the UK of at least 100% by 2050 ('Net Zero'). This has increased from 80% by the June 2019 amendment order.
- 3.5.19. The Act also created the Committee on Climate Change, which has responsibility for setting five-year Carbon Budgets covering successive periods of emissions reduction to 2050, advising and scrutinising the UK Government's associated climate change adaptation programmes and producing a National Adaptation Plan for the UK Government to implement.
- 3.5.20. The Paris Agreement 2015 provides a framework for constraining greenhouse gas emissions, keeping global warming well below 2°C. It was ratified by the UK Government in November 2016.
- 3.5.21. The Sixth Carbon Budget report 'The UK's path to Net Zero' was published in December 2020 and entered UK Law on 24 June 2021. The Carbon Budget Order 2021 sets the UK carbon cap for the five-year period 2033-2037 at 965 million tonnes of carbon dioxide equivalent (78% reduction on 1990 levels), which is in line with the 2050 target in section 1 of the Climate Change Act 2008. The report recommends that the target can be met through four key steps which include the phasing out of high carbon options for transport.
- 3.5.22. The PA2008 s10(3)(a) requires the Secretary of State to have regard to the desirability of mitigating, and adapting to, climate change in designating an NPS. The ExA had regard to the above objectives throughout this Report.

The Environment Act 2021

- 3.5.23. The provisions of the Environment Act 2021 came into force progressively and subsequent to the Application for the Proposed Development and are therefore not applicable to the ExA's Examination of this Application.

3.6. OTHER RELEVANT LEGAL PROVISIONS

Equality Act 2010

- 3.6.1. The Equality Act 2010 establishes the Public Sector Equality Duty (PSED) to eliminate discrimination, advance equality of opportunity and foster good relations between persons who share a protected characteristic and persons who do not. The PSED was applicable in the conduct of this Examination and reporting to the SoS in decision making. The ExA had particular regard to the PSED, including in the decision to hold virtual hearings during the Examination as well as in producing the guidance for, and conduct of, those hearings.

Human Rights Act 1998

- 3.6.2. The compulsory acquisition of land can engage various relevant Articles under the Human Rights Act 1998. This has been considered throughout the Examination and the implications of this for Affected Persons is considered in Chapter 15 of this Report.

Other relevant legislation

- 3.6.3. As well as the EU Directives and UK Regulations that are listed in Section 3.5 of this Report, the Examining Authority (ExA) has also taken account of the following legal provisions:

- The Infrastructure Planning (Decisions) Regulations 2010;
- The Air Quality Standards Regulations 2010;
- United Nations Environment Programme Convention on Biological Diversity 1992;
- National Parks and Access to the Countryside Act 1949;
- Wildlife and Countryside Act 1981;
- Natural Environment and Rural Communities Act 2006;
- The Countryside and Rights of Way Act 2000;
- The Hedgerow Regulations 1997;
- The Protection of Badgers Act 1992;
- UK Biodiversity Action Plan 1994;
- The Environmental Permitting (England and Wales) Regulations 2016;
- The Planning (Listed Buildings and Conservation Areas) Act 1990;
- Ancient Monuments and Archaeological Areas Act 1979;
- Environmental Protection Act 1990;
- Control of Pollution Act 1974;
- The Pollution Prevention and Control Act 1999;
- Water Resources Act 1991;
- Flood and Water Management Act 2010;
- Water Act 2003 and 2014;
- Land Drainage Act 1991;
- The Climate Change Act 2008 (2050 Target Amendment) Order 2019;
- The Energy Act 2004;
- The Electricity Act 1989;
- The Highways Act 1980;
- The Town and Country Planning Act 1990;
- The Neighbourhood Planning Act 2017;

- Protection of Wrecks Act 1973;
- The Protection of Military Remains Act 1986;
- The International Convention for the Safety Of Life At Sea (SOLAS) 1974 (as amended) which is given effect in UK law by The Merchant Shipping (Safety of Navigation) Regulations 2020;
- The Convention on the International Regulations for Preventing Collisions at Sea 1972 (as amended) which are given effect in UK law by the Merchant Shipping (Distress Signals and Prevention of Collisions) Regulations 1996; and
- The Air Navigation Order 2016.

3.7. OTHER RELEVANT POLICY STATEMENTS

3.7.1. Other relevant policy statements include the following:

- Noise Policy Statement for England 2010;
- Net Zero Strategy: Build Back Greener 2021; and
- British Energy Security Strategy 2022.

3.7.2. The British Energy Security Strategy is considered in more detail in Chapter 5 of this Report.

3.8. THE NATIONAL PLANNING POLICY FRAMEWORK

3.8.1. The National Planning Policy Framework, July 2021, and its accompanying Planning Practice Guidance set out the Government's planning policies for England and how these are expected to be applied for the purposes of making Development Plans and deciding applications for planning permission under the Town and Country Planning Act 1990 (as amended).

3.9. MADE DEVELOPMENT CONSENT ORDERS

3.9.1. In the Explanatory Memorandum [APP-204, updated by REP7-041] the Applicant made reference to the following made Orders:

- Rookery South (Resource Recovery Facility) Order 2011;
- Hinkley Point C (Nuclear Generating Station) Order 2013;
- Hornsea One Offshore Wind Farm Order 2014;
- Walney Extension Offshore Wind Farm Order 2014;
- Thames Water Utilities Limited (Thames Tideway Tunnel) Order 2014;
- Dogger Bank Creyke Beck Offshore Wind Farm Order 2015;
- A160/A180 (Port of Immingham Improvement) Order 2015;
- Hirwaun Generating Station Order 2015;
- Hornsea Two Offshore Wind Farm Order 2016;
- A14 Cambridge to Huntingdon Improvement Scheme Order 2016;
- East Anglia Three Offshore Wind Farm Order 2017;
- Wrexham Gas Fired Generating Station Order 2017;
- Eggborough Gas Fired Generating Station Order 2018;
- Abergelli Power Gas Fired Generating Station Order 2019;
- Port of Tilbury (Expansion) Order 2019;
- Millbrook Gas Fired Generating Station Order 2019;
- Hornsea Three Offshore Wind Farm Order 2020;

- Cleeve Hill Solar Park Order 2020;
- Lake Lothing (Lowestoft) Third Crossing Order 2020;
- Norfolk Boreas Offshore Wind Farm Order 2021; and
- Norfolk Vanguard Offshore Wind Farm Order 2022.

3.9.2. During the course of the Examination reference was also made to the East Anglia ONE North Order 2022 and the East Anglia TWO Order 2022.

3.10. TRANSBOUNDARY EFFECTS

3.10.1. On behalf of the SoS the Planning Inspectorate carried out a screening exercise to determine whether the Proposed Development would result in any likely significant effects on the environment in any European Economic Area (EEA) State. An initial transboundary screening [OD-003] under Regulation 32 of the 2017 EIA Regulations was undertaken on behalf of the SoS on 1 October 2019 following the receipt of the Applicant's Scoping Report.

3.10.2. It was concluded that significant effects on the environment of EEA states were likely. A notice was placed in the London Gazette [OD-004] on 11 October 2019 and the following states were notified of the Proposed Development:

- Belgium;
- Denmark;
- France;
- Germany;
- Norway;
- Iceland;
- Sweden;
- The Netherlands; and
- The Republic of Ireland.

3.10.3. No EEA States replied to that initial notification.

3.10.4. A second screening took place on 25 November 2022 following acceptance of the application for Examination. The second screening [OD-003] concluded that the Inspectorate remained of the view that the Proposed Development is likely to have a significant effect on the environment in the EEA States as a result of impacts to marine mammals and commercial fisheries. No new EEA States were identified as likely to be affected. On a precautionary basis, notification letters were re-sent to all the states that were initially notified. The Republic of Ireland [OD-011] responded to the notification to confirm that it did not wish to participate in the transboundary EIA procedure. Denmark [OD-009] and Belgium [OD-010] confirmed their wish to participate and were subsequently consulted by the Planning Inspectorate. Consultation responses were received from both parties. No responses were received from any of the other notified EEA States.

3.10.5. Potential transboundary impacts were considered by the Applicant in the ES Transboundary Screening Report [AP-055] with relevant matters carried forward to the individual Chapters of the ES.

3.10.6. This Report considers transboundary matters in the relevant topic sections in chapters 11, 12 and 13, and in Chapter 14 includes conclusions on transboundary effects for Shipping and Commercial Fisheries and Fishing.

3.11. LOCAL IMPACT REPORTS

3.11.1. Section 104 of the PA2008 states that in deciding the application the SoS must have regard to any LIR within the meaning of s60(3). There is also a requirement under s60(2) to give notice in writing to each local authority falling under s56A inviting them to submit LIRs. This notice was given on 24 January 2022 [PD-005].

3.11.2. A LIR was submitted by East Riding of Yorkshire Council (ERYC) [REP1-074]. The matters raised in the LIR are discussed in the relevant Chapters of this Report.

3.12. THE DEVELOPMENT PLAN

3.12.1. Paragraph 4.15 of NPS EN-1 states that policies in Development Plan documents and other Local Development Framework documents may be considered important and relevant in decision making.

3.12.2. The onshore cable route and associated onshore development falls within the administrative boundary of ERYC. The Development Plan in relation to the onshore works comprises the East Riding Local Plan Strategy Document (ERLPSD), adopted April 2016 and the Allocations Document, adopted July 2016.

East Riding Local Plan 2012 – 2029 Strategy Document, April 2016

3.12.3. The East Riding Local Plan 2012–2029 Strategy Document (the Local Plan) contains both overarching and issue-specific policies. The relevant issue-specific Local Plan policies are discussed in more detail in Chapter 12 of this Report.

3.12.4. In terms of more general, overarching Local Plan policies:

- Policy S1 states a presumption in favour of sustainable development;
- Policy S2 supports a reduction in greenhouse gas emissions;
- Policy S3 seeks to focus new development to specific locations; and
- Policy S4 supports certain types of development in the countryside, including energy development and associated infrastructure.

4. THE PLANNING ISSUES

4.1. MAIN ISSUES IN THE EXAMINATION

- 4.1.1. As required by Section (s) 88 of the Planning Act 2008 (PA2008) and Rule 5 of the Infrastructure Planning (Examination Procedure) Rules 2010, the Examining Authority (ExA) made an Initial Assessment of Principal Issues (IAPI) arising from the application within 21 days of the day following the receipt of the s58 Certificate of Compliance [OD-007] (s56 notice) from the Applicant.
- 4.1.2. The IAPI, which was based on the Relevant Representations (RR) and the ExA's reading of the application documentation, was set out in Annex C of the ExA's Rule 6 letter [PD-005] and comprised the following headings:
- commercial fishing and fisheries;
 - compulsory acquisition;
 - design;
 - draft Development Consent Order (DCO);
 - Environmental Impact Assessment (EIA) and Environmental Statement (ES);
 - Habitats Regulations Assessment (HRA);
 - historic environment (onshore and offshore);
 - infrastructure and other users;
 - landscape and visual effects;
 - marine and coastal geology, oceanography and physical processes;
 - marine ecology;
 - navigation and radar (marine and air) including effects on shipping routes;
 - noise, vibration, Electro Magnetic Fields (EMFs) and light;
 - onshore ecology;
 - onshore water environment;
 - Proposed Development and site selection;
 - socio-economic and land use effects; and
 - traffic and transport and Public Rights of Way (PRoW).
- 4.1.3. At the Procedural Deadline prior to the Preliminary Meeting (PM) the RSPB [PDL-007] advised that in its opinion the proposed use by the Applicant of outline rather than detailed plans should be included as a principal issue in the Examination.
- 4.1.4. The IAPI was discussed at the PM [EV-003] where, under this agenda item, a representative of the RSPB raised concerns regarding the provision of information and the level of detail in relation to offshore ornithology. The representative for Mr and Mrs Dransfield also highlighted their concern [RR-013] regarding the adequacy of pre-application consultation, advocating that it should be included as a principal issue in the Examination.
- 4.1.5. The ExA noted the points raised on behalf of the RSPB and Mr and Mrs Dransfield. However, it felt that the adequacy of offshore ornithological

data would be examined under marine ecology and the HRA and the use of outline rather than detailed plans would be considered under the draft DCO. As a result, the ExA considered that these issues, whilst not specifically referenced, were covered by the IAPI.

- 4.1.6. With regard to the adequacy of pre-application consultation the ExA noted from Mr and Mrs Dransfield's RR [RR-013] that this concern originated from their contention that they had not been afforded the opportunity to suggest alternatives during the pre-application process. As a consequence, the Applicant had, in their opinion, not fully considered alternative routes for accessing the onshore substation (OnSS). The ExA noted that the IAPI as drafted in the Rule 6 [PD-005, Annex C] included 'Proposed Development and Site Selection' and 'Traffic and Transport' as principal issues. Therefore, it was the ExA's view that these concerns could be considered as part of these principal issues and the IAPI did not need to be amended.

4.2. OTHER ISSUES ARISING IN WRITTEN AND ORAL SUBMISSIONS

- 4.2.1. Other issues raised either through written or oral submissions that would not be covered by the IAPI included:

- failure to consult and provide the relevant information to enable engagement [RR-013];
- no offshore firefighting capability for the proposed area of development [RR-016];
- concern about how noise and disturbance from construction and the OnSS would affect animal welfare [RR-017] and [RR-019];
- rural crime and security [EV-007b] and [REP3-059]; and
- risk of fire at the convertor [*sic*] sub-station [EV-007b] and [REP3-059].

- 4.2.2. The representatives for Mr and Mrs Dransfield [RR-013], [REP2-074], [REP4-061] and [REP5-100] alleged in respect of their clients that the Applicant had failed to comply with the statutory consultation requirements under s42 of the PA2008. As a result of the lack of involvement, it was argued, decisions that were potentially prejudicial to their clients, had been made without consideration of their views. Furthermore, they contended that the evidence that the Applicant produced to demonstrate that it did consult with their clients was not provided in a timely manner, was misleading and inaccurate.

- 4.2.3. The Applicant [REP1-038, Annex 2] advised that upon notification that Mr and Mrs Dransfield had not received notice of the statutory consultation carried out in 2019, a further notice pursuant to s42 of the PA2008 was sent in July 2020, to which Mr and Mrs Dransfield responded. The Applicant advocated that in accordance with s49 of the PA2008 it had had regard to that response [APP-133, pages 452 to 469].

- 4.2.4. Furthermore, the Applicant highlighted that, whilst the location of the access to the OnSS was not moved to the A164 as requested by Mr and

Mrs Dransfield, to address their concerns regarding the potential interaction between the access road to the OnSS and the new access to Jillywood Farm as part of the Jocks Lodge Improvement Scheme, the Applicant made changes to the location of the junction on the A1079.

- 4.2.5. The concerns regarding lack of pre-application consultation were repeated by Mr and Mrs Dransfield in more detail at Deadline (D) 2 [REP2-074], D4 [REP4-061] and D5 [REP5-100]. In response the Applicant repeated its D1 submission and, where new points had been raised provided a more detailed response [REP3-031, Section 5] and [REP5a-014, Section 2].
- 4.2.6. Based on what it has read and heard the ExA is satisfied that Mr and Mrs Dransfield were consulted as required by s42 of the PA2008 as part of the Applicant's pre-application consultation. However, the ExA accepts that, given the lack of definitive proof that notices were either posted or received, this might not have been undertaken in the initial rounds of consultation.
- 4.2.7. Section 49(2) of the PA2008 states that, "*the applicant must, when deciding whether the application that the applicant is actually to make should be in the same terms as the proposed application, have regard to any relevant responses*". Consequently, the question before the ExA is whether, because of when Mr and Mrs Dransfield engaged in the pre-application process, the application that is before it is the same as if Mr and Mrs Dransfield had had the opportunity to engage with the pre-application process at an earlier stage.
- 4.2.8. In its Further Written Questions (ExQ2) [PD-012, PDS.2.1], the ExA asked Mr and Mrs Dransfield and their representative to provide further details of the alternative means of access to the OnSS that had been referred to in their RR [RR-013] including a request for further details of the benefits that the alternatives would deliver over the route proposed by the Applicant.
- 4.2.9. At D5 [REP5-100], a representative for Mr and Mrs Dransfield advised that of the five potential routes considered by the Applicant for access to the OnSS, the only appropriate option considered was access from the west via the A164. However, they considered that there may be additional route(s) which were not considered by the Applicant which could also be appropriate. Access to the OnSS, including this alternative, is considered in Chapter 12 of this Report. As a result, the ExA was satisfied with these responses and did not find it necessary to advance these matters in the Examination.
- 4.2.10. With regards to the concerns regarding offshore firefighting capability, [RR-016] the Applicant [REP1-038, 2.16] noted the representation but clarified for the avoidance of doubt that Humber Fire and Rescue were the relevant 'local fire and rescue service' for the onshore elements of the Proposed Development and thus this was not an issue. The Applicant highlighted that Humber Fire and Rescue was referenced in relation to the HazID report for the outline energy balancing infrastructure (EBI)

[REP2-029] and would be consulted during the design phase for this element of the scheme. The ExA was satisfied with this response and did not find it necessary to advance these matters in the Examination.

- 4.2.11. Mr and Mrs Taylor [RR-017] and [RR-019] attended the Open Floor Hearing [EV-007b], where they expanded on the concerns that they had raised in their RR and raised a number of new issues. The points that they raised in relation to flooding, effect on the PRoW, effect on living conditions for residents of the farmhouse and potential impacts on agriculture are considered in the relevant sections of this Report.
- 4.2.12. Mrs Taylor [EV-007b] advised that the concerns about the Proposed Development and animal welfare related to the potential effect of noise and disturbance arising from construction on the elderly rescue ponies that resided at the farm, some of which had respiratory problems. A vet's report submitted at D3 [REP3-059] confirmed that construction work in such close vicinity to where the animals were both housed and graze could have a negative impact on their welfare.
- 4.2.13. In response the Applicant [REP4-042] advised that specific consideration of livestock and horses is not typical in the EIA process. However, it considered that the assessments undertaken for the OnSS on human and ecological receptors sufficiently assessed the constructional and operational impacts that would arise from the Proposed Development and that the Code of Construction Practice (CoCP) would secure the mitigation measures necessary to avoid significant effects.
- 4.2.14. The concerns about rural crime related to the fact that the access to the OnSS from the A1079 would not pass any dwellings and could therefore attract unauthorised people [EV-007b] and [REP3-059]. The Applicant [REP4-042] advised that it would be a legal requirement to exclude unauthorised personnel from entering the site. During construction, access to the OnSS site would be gated and staffed at all times by a security guard based in a gatehouse. During operation, the need to access the OnSS would be reduced. Consequently, access would be by way of a more substantial electronic gate opened either via a keypad or phone number. These measures would be secured for construction in the Outline CoCP [REP4-019, paragraph 5.3.1.5] and for operation by Requirement 11(2) of the draft DCO [REP7-039].
- 4.2.15. Mrs Taylor highlighted the proximity of the OnSS and other structures to her property. She was concerned that the proposed access could be difficult for emergency vehicles, thereby increasing the risk associated with any fire at the OnSS. The Applicant responded [REP4-042] that the access road to the OnSS had been designed to accommodate emergency vehicles. The Applicant confirmed that it had assessed the likelihood of an accident occurring and the severity of any impact [AS-020] which it considered would be 'low'. Risk management techniques for the EBI would be secured through Requirement 26 of the draft DCO [REP7-039].
- 4.2.16. The ExA was satisfied with these responses and did not find it necessary to advance these matters in the Examination.

4.3. ISSUES ARISING IN LOCAL IMPACT REPORT

- 4.3.1. Sections 104 and 105 of the PA2008 state that in deciding the application the Secretary of State (SoS) must have regard to any Local Impact Report (LIR) within the meaning of s60(3).
- 4.3.2. A LIR was submitted by the host authority, East Riding of Yorkshire Council (ERYC) [REP1-074], which expressed support for the Proposed Development in principle.
- 4.3.3. ERYC advised [REP1-074, paragraph 5.1] that it was satisfied that the information submitted with the application provided sufficient detail for the ExA to make an appropriate decision.
- 4.3.4. ERYC advocated [REP1-074, paragraph 5.2] that the Proposed Development would result in significant contributions to increased provision of renewable energy. The onshore works would be largely temporary and below ground. However, the OnSS and EBI would be of an extremely significant scale and would inevitably have a negative effect on the existing landscape, albeit that the Council considered that the effect could be partly mitigated by appropriate landscaping and appropriate design and use of materials.
- 4.3.5. ERYC considered [REP1-074, paragraph 5.3] that impacts on highway safety, heritage assets, residential amenity, ecology and PRow could all be minimised through the proposed Requirements as set out in the draft DCO.
- 4.3.6. Overall, the LIR [REP1-074, paragraph 5.4] advised that ERYC was satisfied that the application as submitted provided sufficient information to demonstrate that the principle of the application would be acceptable and as a result ERYC concluded that it did not wish to make an in-principle objection.
- 4.3.7. The LIR raised several minor issues, which are not listed here, but are considered in the relevant Chapters of this Report. However, it can be noted here that the final signed Statement of Common Ground (SoCG) between the Applicant and ERYC [REP7-060] demonstrated that the issues raised at the outset of the Examination in the LIR had been overcome and confirmed agreement on all topics.
- 4.3.8. The ExA has had regard to all matters raised in the LIR, as required by s104(2) of the PA2008. The overall support for the proposal and its significant contribution to the increased provision of renewable energy highlighted by ERYC is noted. The areas of concern or on-going discussion referred to in the LIR are discussed in the relevant Chapters of this Report.

4.4. CONFORMITY WITH NATIONAL POLICY STATEMENTS

- 4.4.1. As identified in Chapter 3 of this Report, the Proposed Development falls to be considered against the National Policy Statements (NPSs) for

Energy (NPS EN-1), Renewable Energy Infrastructure (NPS EN-3) and Electricity Networks Infrastructure (NPS EN-5). Conformity with the NPSs was a principal matter for consideration in the Examination and for the SoS under s104(3) of the PA2008.

- 4.4.2. The Energy White Paper: 'Powering our Net Zero Future' (December 2020) announced that the Government would review the energy NPSs to reflect the policies and broader strategic approach set out in the white paper and ensure that it continued to have a planning policy framework that could support the infrastructure required for the transition to net zero. In September 2021, as part of that review the Government published revised NPS EN-1 to EN-5 for consultation.
- 4.4.3. While the NPSs are being reviewed, the current suite of NPSs remains relevant Government policy and NPS EN-1 to EN-5 have effect for the purposes of the PA2008. The SoS has decided³ that the original suite of NPSs should have effect for any application accepted for examination before the designation of the amendments. The review advised that the amended NPSs should therefore only have effect in relation to those applications for development consent accepted for examination after their designation.
- 4.4.4. As a result, this application has been considered for conformity with the NPSs as designated.
- 4.4.5. Section 5.4 of the Planning Statement [APP-229] and Section 2.3.3 of Chapter 2 of the ES [APP-008] discuss the NPSs in the context of this application. Where relevant to the topic, individual chapters of the ES provide further consideration of the Proposed Development against the criteria in the NPSs.
- 4.4.6. The LIR [REP1-074] only considered the application in the context of local planning policy and made no reference to the NPSs. No Interested Parties (IPs) raised conflict with the NPSs as a matter of concern.
- 4.4.7. Chapters 5 to 12 of this Report identify the extent to which the Proposed Development conforms with the relevant parts of NPS EN-1, NPS EN-3 and NPS EN-5.

4.5. CONFORMITY WITH THE MARINE POLICY STATEMENT AND MARINE PLANS

- 4.5.1. Under s104(2)(aa) of the PA2008, the SoS must have regard to, "*the appropriate marine policy documents (if any), determined in accordance with s59 of the Marine and Coastal Access Act (MCAA) 2009*". The relevant marine policy documents for this application are the Marine Policy Statement (MPS) and the East Inshore and East Offshore Marine Plan.

³ Planning for New Energy Infrastructure, Draft National Policy Statements for energy infrastructure (September 2021)

- 4.5.2. Sections 5.6 of the Planning Statement [APP-229] and sections 2.3.3 and 2.5.3 of Chapter 2 of the ES [APP-008] set out the overarching marine policy framework for this application. Where relevant, individual chapters of the ES assessed the Proposed Development against these in more detail.
- 4.5.3. Schedules 11 and 12 of the draft DCO [REP7-039] are deemed marine licences (DMLs) (part 4 of the MCAA), and the MPS and the Marine Plans provided the overarching policy context for the ExA's consideration of these.
- 4.5.4. The relevant Chapters of this Report assess whether the Proposed Development would accord with the appropriate sections of the MPS and Marine Plans.

4.6. CONFORMITY WITH THE DEVELOPMENT PLAN

- 4.6.1. The LIR submitted by ERYC [REP1-074, Section 3] identified that the relevant development plan comprised the East Riding Local Plan Strategy Document (April 2016) and Allocations Document (July 2016). It then listed the development plan policies against which the Proposed Development would need to be considered. These were also set out by the Applicant in Chapter 2 of the ES [APP-008, Section 2.5] and the Planning Statement [APP-229, Section 5.7].
- 4.6.2. ERYC did not identify any conflict with the relevant development plan in either its LIR [REP1-074] or the signed SoCG [REP7-060]. ERYC highlighted [REP1-074, paragraph 4.1.2] that Policy S4(D) allows for energy development and associated infrastructure where a countryside location is required for operational reasons and Policy EC5 supports energy development where any adverse impacts can be satisfactorily minimised, and any residual harm is outweighed by public benefits.
- 4.6.3. No IPs raised conflict with development plan policies as an issue.

4.7. APPLICATION OF OTHER POLICIES

- 4.7.1. The National Planning Policy Framework (NPPF) sets out the Government's definition of sustainable development and identifies how planning policies for England are expected to be applied. It is a material consideration for local planning authorities when making planning decisions for development under the Town and Country Planning Act 1990.
- 4.7.2. The NPPF and the accompanying National Planning Practice Guidance (NPPG) can be important and relevant material considerations in decisions on NSIPs, but only to the extent relevant to that individual project.
- 4.7.3. Where appropriate, the ExA has considered the NPPF and NPPG in the relevant Chapters of this Report.

4.8. ENVIRONMENTAL IMPACT ASSESSMENT

Introduction

- 4.8.1. For reasons set out at section 1.5 of this Report, the application is for EIA development in terms of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the EIA Regulations). This section records:
- the documents that comprise the Environmental Statement (ES) and the changes made to those documents during the Examination;
 - the environmental management documents proposed by the Applicant to work in tandem with DCO provisions to secure the construction and operation of the Proposed Development within the Parameters assessed in the ES, and the application of mitigation measures that were relied on when undertaking the EIA; and
 - the documents that comprise the ES submitted in relation to the proposed measures for compensation in support of the Applicant's Habitats Regulations Assessment derogation case.
- 4.8.2. It concludes on the question of whether the EIA process and the submitted ES provide an adequate basis for decision making by the Secretary of State.

The submitted and final Environmental Statement

- 4.8.3. Six ES volumes [APP-007 to APP-128] including a non-technical summary [APP-006] were provided with the application.
- 4.8.4. Several clarifications, amendments and additions were made to the ES during the course of the Examination in response to the changes to the Proposed Development discussed in Chapter 2, and in response to requests and questions from the ExA and submissions from IPs.
- 4.8.5. Some changes were made shortly after submission of the application in response to s51 advice. The ES documents involved are listed in a cover letter from the Applicant [AS-005]. The amendments were recorded in 'schedules of change' by the Applicant [AS-006 to AS-010 and AS-021 to AS-022]. Finding this approach to be potentially confusing for parties attempting to follow the evolution of the ES through the Examination, the ExA requested subsequent amendments to be recorded through the production of tracked and clean versions of the relevant submitted documents rather than a separate schedule. From D2 onwards, the Applicant amended the Guide to the Application (for example [REP2-040]) to highlight where changes had been made and to specify the up-to-date version of each ES document.
- 4.8.6. Schedule 15 of the draft DCO ('Documents to be certified') [APP-203] included the ES, without a definition. Article 2 of the draft DCO defined the ES as '*the document certified as the environmental statement by the Secretary of State for the purposes of this Order under article 38 (certification of plans and documents etc)*'. The ExA's first written questions (ExQ1) [PD-006] sought clarity over the list of application

documents that comprised the ES, and how these and any subsequent amended or additional documents could be secured through any DCO.

- 4.8.7. In response [REP2-061], the Applicant updated Schedule 15 of the draft DCO into two parts, with Part 1 listing the application and subsequent ES documents (and Part 2 listing all other documents). By the Applicant's final preferred draft DCO [REP7-039], the Schedule was divided into three parts for further clarity: Part 1, Documents forming the ES to be certified; Part 2 Examination documents forming part of the ES to be certified; and Part 3, Other documents to be certified. The Schedule was updated as necessary throughout the Examination, whenever further documentation amending or clarifying the ES was submitted.
- 4.8.8. There was some uncertainty about the relevance of the Applicant's Commitment Register [APP-050] to the ES, and how the measures within it were secured through the draft DCO. Whilst it was referred to in the interpretation section of the draft DCO and listed in Schedule 15 as a document to be certified, there was no further reference to it. Clarity was requested by several parties including Historic England and the Marine Management Organisation (MMO).
- 4.8.9. The Applicant explained [REP2-038] that each commitment listed in the Register was secured separately through a certified document, as referenced in the Register. The Commitment Register was intended simply to be a collated checklist rather than a means of securing the measures.
- 4.8.10. The ExA noted that Chapter 1 [APP-007] and other parts of the ES included mitigation measures that were said to be set out in the Applicant's Preliminary Environmental Information Report (PEIR) and agreed pre-application. It appeared that these were relied on to evidence that no detailed assessment was required in the ES, or in some cases to reach a finding of no significant adverse effect. Given that the PEIR was a pre-application consultation document and was not before the Examination, it was unclear how such commitments could be secured.
- 4.8.11. The Applicant responded [AS-021, Appendix A] that the approach was intended to comply with emerging best practice in relation to proportionate EIA, and that further explanation was included in 'How to Read this ES' [APP-035].
- 4.8.12. The relevant impacts from the PEIR had been carried through in list form to the submitted Impacts Register [APP-049], which was part of the ES, and therefore secured. All mitigation commitments associated with these impacts had been identified in the Commitment Register along with an explanation of how they are secured. These documents also included brief details of how and why issues were scoped out (or agreements reached) at the scoping and PEIR stages; in carrying forward any necessary mitigation to reach those conclusions, all necessary measures would be secured.

- 4.8.13. In pursuing the proportionate approach to the EIA, the Applicant had also sought to scope out detailed consideration of various matters from the ES on the basis of iterative consultation and pre-application agreement with regulators and consultees. A table in each topic chapter of the ES set out 'Impacts scoped out of assessment and justification' (for example, Table 3.8 of [APP-015]).
- 4.8.14. The ExA was concerned that such discussions and agreements should be before the Examination rather than being 'taken as read'. In response to the request, the Applicant collated all letters of comfort, meeting minutes and consultation responses that were relevant to this and submitted them into the Examination [REP1-008 and REP1-009].
- 4.8.15. The final ES comprises the documents set out in section 1.3 of the Applicant's Rule 17 Guide to the Application [REP8-010] under the title 'Environmental Statement' (from table references A1 to A6.10.1 inclusive).

Proposed derogation compensation measures EIA

- 4.8.16. The application documents included a Habitats Regulations Assessment (HRA) derogation and compensation case for any adverse effects on integrity of European sites, mostly on a without-prejudice basis. This is discussed in detail in Chapter 14 of this Report. As the Applicant considered the proposed compensation measures to be part of the Proposed Development, the Applicant undertook an EIA for them, and provided the results in an annex to the ES. This is included in the ES documents noted above and comprises [APP-057 to APP-066].
- 4.8.17. Both Natural England (NE) [REP2-082, superseded by AS-028 and AS-029] and the RSPB [REP2-090] submitted that any compensation measures should be better defined at the point of application. NE submitted that without an appropriate level of detail on the locations and implementation methods for the proposed compensation, it was not possible to comment meaningfully on the likely environmental effects. The RSPB suggested that the EIA of the compensatory measures was:
- "...of very limited (if any) practical value... We would welcome clarification from the Applicant on when further detailed information on each specific compensation measure will be provided, including but not limited to location, design, implementation methods and management, monitoring etc".*
- 4.8.18. The ExA considered the proposed compensation measures to be at a rudimentary stage, and, while some site selection criteria and search areas were defined, few actual or potential locations had been identified for them. As such, the EIA process was rather strategic in nature. In ExQ1 [PD-006], the ExA asked how the detail and assessment would be refined, and on what timescale. In response, the Applicant [REP2-038] suggested that any refinement would not affect the outcome of the EIA, though no evidence for this conclusion was provided.

- 4.8.19. While some additional detail for the compensation proposals was provided during the course of the Examination, and some potential sites and options were more clearly identified, no final design or location was defined for any of the proposed measures. Some of the ES annex documents were updated, and the final set of up-to-date documents is listed in section 1.3 of the Applicant's Rule 17 Guide to the Application [REP8-010] (from table references A4.6.1 to A4.6.5 inclusive).
- 4.8.20. The Applicant noted [REP2-038] that consent for any such measures, should they be deemed necessary by the Secretary of State, would be sought at a future date through another consenting regime rather than through the Order for which this application is made, and indicated that any detailed assessment would be more appropriately undertaken in that context and at that stage.
- 4.8.21. Therefore, the ExA brings to the attention of the SoS that there would most likely be a requirement for an updated or additional ES to be provided to the relevant consenting authority alongside any future application for physical HRA compensation measures. The SoS should also note that some of the without-prejudice compensation proposals for guillemot and razorbill are situated in the Bailiwick of Guernsey, outside the usual legislative framework for England and its territorial waters. Full details are considered in Chapter 13 of this Report, the Findings and Conclusions in Relation to Habitats Regulations Assessment.

The outline management plans

- 4.8.22. The ES relies on mitigation to ensure that the effects of the Proposed Development would be restricted to those described in the ES. This includes measures that are not inherent in the design of the Proposed Development being transferred into a series of outline management plans and strategies that would be detailed and finalised post-consent, secured through the discharge of various Requirements in the Order or Conditions in the deemed marine licences. The final versions of each plan would need to accord with the corresponding outline plans. The approval of the detailed plans post-consent would largely determine the detail of the mitigation measures to be implemented, in accordance with the framework set out in the outline plans.
- 4.8.23. The ES provided with the application was supported by the following outline management plans:
- Outline Code of Construction Practice [APP-237] (which included the Outline Onshore Biosecurity Risk Assessment, Outline Soil Management Strategy, Outline PRow Management Plan, Outline Pollution Prevention Plan, Outline Site Waste Management Plan, and the Outline Construction Traffic Management Plan);
 - Outline Ecological Management Plan [APP-238];
 - Outline Marine Written Scheme of Investigation [APP-239];
 - Outline Marine Mammal Mitigation Protocol [APP-240];
 - Outline Onshore Infrastructure Drainage Strategy [APP-241];
 - Outline Marine Monitoring Plan [APP-242];

- Outline Landscape Management Plan [APP-243];
- Outline Fisheries Coexistence and Liaison Plan [APP-244];
- Outline Written Scheme of Investigation for Onshore Archaeology [APP-245];
- Outline Southern North Sea Special Area of Conservation Site Integrity Plan [APP-246];
- Outline Energy Balancing Infrastructure HazID Report [APP-247];
- Outline Design Plan [APP-248];
- Outline Enhancement Strategy [APP-249];
- Outline Offshore Cable Installation Plan [APP-250];
- Outline Net Gain Strategy [APP-251];
- Outline HVAC Booster Station Lighting Plan [APP-252];
- Outline Employment and Skills Plan [APP-253]; and
- Outline Ornithological Monitoring Plan [APP-254].

4.8.24. Article 38 of the Applicant's draft DCO restricted documents to be certified to those listed in Schedule 15. The ExA was initially unclear how in some cases the various outline plans and strategies mentioned in the application documents were to be secured, or how in some cases they fitted together to ensure that all necessary mitigation would be carried through to a final set of approved documents. Some were 'nested' and there was inconsistency in the naming of some of them in various application documents. Clarification was therefore sought from the Applicant, who provided this in part in some additional submissions during the Pre-examination phase [AS-014], [AS-016] and [AS-022].

4.8.25. Following the start of the Examination, as the clarification noted above did not appear to be comprehensive, the ExA asked for further clarification in its ExQ1 [PD-006], along with an explanation of how the various plans and the measures in them were secured through the draft DCO.

4.8.26. In response to ExQ1, the Applicant [REP2-038] made a number of changes to the outline plans and to the definitions, articles and schedules in the draft DCO.

4.8.27. The final versions of the outline strategies, management plans and similar control documents are listed in Schedule 15 of the Applicant's final draft DCO [REP7-039] as follows:

- Outline Code of Construction Practice [REP4-019] (including the Outline Onshore Biosecurity Risk Assessment, Outline Soil Management Strategy, Outline PRoW Management Plan, Outline Pollution Prevention Plan and Outline Site Waste Management Plan);
- Outline Ecological Management Plan [REP1-029];
- Outline Marine Written Scheme of Investigation [REP5-042];
- Outline Marine Mammal Mitigation Protocol [REP6-011];
- Outline Onshore Infrastructure Drainage Strategy [APP-241];
- Outline Marine Monitoring Plan [REP7-059];
- Outline Landscape Management Plan [REP3-010];
- Outline Fisheries Coexistence and Liaison Plan [REP1-033];
- Outline Written Scheme of Investigation for Onshore Archaeology [REP3-012];

- Outline Southern North Sea Special Area of Conservation Site Integrity Plan [REP7-054];
- Outline Energy Balancing Infrastructure HazID Report [REP2-029, Appendix F];
- Outline Design Plan [REP4-021];
- Outline Enhancement Strategy [APP-249];
- Outline Cable Specification and Installation Plan [REP6-013];
- Outline Net Gain Strategy [APP-251];
- HVAC Booster Station Lighting Plan [APP-252];
- Outline Employment and Skills Plan [APP-253];
- Outline Ornithological Monitoring Plan [APP-254];
- Outline Construction Traffic Management Plan [REP4-019];
- Outline Operations and Maintenance Plan [REP5a-007]; and
- Kittiwake Compensation Plan [REP5-016].

Adequacy of the EIA process and ES

EIA methodology

- 4.8.28. The ExA and some of the parties to the Examination raised concerns about the Applicant's EIA methodology. Chapter 5 of the ES [APP-011 amended by AS-007] describes the approach taken to the assessment. The significance of each effect was determined from a matrix of magnitude versus value or sensitivity (Figure 5.3; Paragraph 5.7.82). In general, only effects of moderate or greater significance were considered significant for the purposes of the EIA. There appeared to be conflicting indications of whether effects of minor significance had been considered for mitigation.
- 4.8.29. The ExA asked for clarification, noting that effects of minor significance were inherently significant, and that paragraph 5.7.8.8 of the ES stated:
- "Mitigation measures (commitments) are developed to eliminate or reduce any negative effects identified."*
- 4.8.30. The Applicant's Responses to ExQ1 [REP2-038] confirmed that significance had been defined using a standardised assessment methodology from the Design Manual for Roads and Bridges and that:
- "... All impacts at all stages of development (Scoping, PEIR, ES and DCO) were considered for mitigation."*
- 4.8.31. In its Relevant Representation [RR-029], NE noted numerous instances in the ES where significance had been presented as a range, and that it was nearly always the lower value taken forward into the conclusions. It suggested that a precautionary principle should have been applied, especially where a Rochdale Envelope approach had been used.
- 4.8.32. In response [REP1-038], the Applicant defended its approach, noting that, in each case, the, *"relevant consultant utilised their professional judgement accordingly using available evidence..."*.

- 4.8.33. NE also expressed concern that the definitions of magnitude used for some topics such as benthic and intertidal habitats were very broad with no suitable incremental step between 'minor' and 'moderate', suggesting this might have resulted in the underestimation of impacts.
- 4.8.34. Again, the Applicant defended its approach [REP3-046], and when questioned by the ExA at Issue Specific Hearing 4 (ISH4) [EV-027], the Applicant explained that it simply disagreed with NE on this point; the approach was based on proper Design Manual for Roads and Bridges (DMRB) methodology; and it had checked other recent and similar projects and found that their approaches did not materially differ.
- 4.8.35. The ExA has concerns that the assessment appeared to be based very firmly on guidance set out in the Design Manual for Roads and Bridges, which was published principally for the assessment of major road schemes, when alternative approaches that might be considered more appropriate for major renewable energy projects are available.

The cumulative assessment

- 4.8.36. In its Relevant Representation [RR-029], NE suggested that the impact pathway approach adopted by the Applicant for the assessment potentially leads to a failure to identify an overall, cumulative impact on any given receptor. Clarification was requested from the Applicant in ExQ1 [PD-006], but the response was considered unsatisfactory by the ExA [REP2-038]. The Applicant's subsequent response to a similar question in ExQ2 [REP5-074] was, in the ExA's view, partial and failed to add clarity so the ExA raised the matter orally at ISH10. Here, the Applicant confirmed that each topic chapter in the ES has a section that describes any inter-related effects of different impacts on the same receptor.
- 4.8.37. The Applicant monitored the progress of other proposed projects that might add cumulatively to the effects of the Proposed Development, where further details became available during the course of the Examination. The decision on the Norfolk Vanguard Offshore Wind Farm and the publication of the Dudgeon and Sheringham Shoal Extension Offshore Wind Farm PEIR were considered, but no parties felt that any update to the cumulative assessment was necessary as a consequence.
- 4.8.38. NE pointed out [REP3-054] that scoping for the Northern Endurance Partnership's carbon storage project had been submitted and that the additional detail made available should be considered in the cumulative assessment for the Proposed Development. The matter of whether the two projects could co-exist, or 'overlap' is covered in detail in Chapter 10 of this Report, but a question about potential cumulative effects was raised with the Applicant in ExQ2.
- 4.8.39. In response [REP5-074], the Applicant, whilst adding additional material into the Report to Inform the Appropriate Assessment (RIAA) at D5 [REP5-013], suggested that the technical details provided with the scoping request were insufficient to inform updates to the cumulative assessment but committed to undertaking a screening exercise

considering 'no overlap' with the Endurance Project for D5a (the 'Endurance No Overlap EIA and HRA review') [REP5a-016]. The Applicant said that this would be followed by an updated assessment at D7 if necessary (the 'Endurance Overlap EIA Annex'). The review concluded that there was no material change to the significance of the cumulative assessment in the case of no overlap between the projects, and a subsequent Annex was considered unnecessary.

- 4.8.40. During the Examination, Interested Parties also suggested that the cumulative assessment should consider the Eastern Green Link 2 (a submarine High Voltage Direct Current link between Peterhead in Aberdeenshire and Drax in North Yorkshire), and the Dogger Bank South Offshore Wind Farms. The Applicant considered both, and, in an update to the onshore and offshore cumulative assessment [REP7-086], concluded that the Scoping Report for the Dogger Bank South Offshore Wind Farms included insufficient information to undertake a meaningful cumulative assessment. The Applicant suggested that detailed consideration of any cumulative effects from the Proposed Development and the Dogger Bank South Offshore Wind Farms would need to be provided with any forthcoming DCO application for the latter.
- 4.8.41. The Applicant agreed with the conclusions reached in the cumulative assessment for the Eastern Green Link 2 Environmental Appraisal Report, and that there would be no additional adverse likely significant cumulative effects beyond those already described in the Hornsea Four ES.

Major accidents and disasters

- 4.8.42. Table 5.5 of the ES [APP-011 amended by AS-007] recognised the potential for significant effects arising from the vulnerability of the Proposed Development to fire in the onshore substation and the energy balancing infrastructure, mentioning hydrogen but not batteries. However, the table noted that this was "*Not covered in the EIA*".
- 4.8.43. During the acceptance phase, the Applicant clarified that electrolysis (or any hydrogen-based energy balancing infrastructure) was no longer under consideration, and that the energy balancing infrastructure would be located alongside the onshore substation. A fire risk assessment was accepted prior to the Preliminary Meeting (Environmental Risk Assessment of the Onshore Substation and Energy Balancing Infrastructure [AS-006, AS-007, AS-020 and AS-021]).
- 4.8.44. In ExQ1 [PD-006], the ExA noted that the additional information addressed the risk of an accident occurring rather than an assessment of the impacts that might result in the unlikely event of it doing so, as required by the EIA Regulations.
- 4.8.45. The Applicant's response to ExQ1 [REP2-038] said that the additional information supplied was a suitable environmental risk assessment. Related risk management techniques were incorporated into an updated version of the Applicant's Outline Energy Balancing Infrastructure HazID Report at Deadline 2 [REP2-028].

- 4.8.46. However, the ExA was still unclear about how the assessment had been undertaken and whether it was consistent with the other topic assessments in the ES. Further clarification was sought in ExQ2.
- 4.8.47. The Applicant's response [REP5-074] was that the risk assessment had identified that the residual risk for all receptors, from all hazards, was at worst 'low', which was not considered significant in EIA terms. As such, the potential effects from accidents were deemed not to reach a threshold for consideration in the EIA.
- 4.8.48. The Applicant did, nevertheless, recognise that there would be clear safety considerations for human receptors located in close proximity to OnSS and EBI and that the Applicant would therefore ensure that all relevant regulations requiring fire safety would be rigorously applied, and that any additional permits or consents relating to the OnSS would be applied for if required.
- 4.8.49. The ExA sought further clarification on this matter at ISH8 [EV-032], asking the Applicant to confirm whether cumulative effects on individual receptors – specifically in the onshore environment – had been adequately addressed in the documents submitted into the Examination.
- 4.8.50. The Applicant's response at ISH8 set out its view that this matter had been adequately addressed. The Applicant noted that it had considered three forms of cumulative assessment:
- multiple projects combining together and the potential for that to increase the significance of an effect;
 - the cumulative increase of impacts during construction and operation combining over time and impacting on certain receptors; and
 - the intra combination of multiple topic areas from the environmental statement combining together on receptors (for example, traffic, noise and air quality).
- 4.8.51. The Applicant concluded by confirming that the cumulative scenarios set out above were assessed in the Applicant's onshore EIA, typically in section 14 of each chapter of its ES.

Regulation 20 and the adequacy of the offshore ornithology baseline in the ES

- 4.8.52. As described in Chapter 8 of this Report, both NE [RR-029] and the RSPB [RR-033] raised concerns in their Relevant Representations about the Applicant's presentation of the offshore ornithology baseline in the ES [APP-017]. These concerns continued well into the Examination. At D4, NE [REP4-055] concluded that, in its opinion, the characterisation of the seabird baseline was not fit for purpose and could not be relied on to inform the EIA.
- 4.8.53. The ExA issued a Rule 17 request [PD-010] to the Applicant to ask if it intended to address the shortcomings identified by NE. The Applicant reported [REP4a-001] some interim results from remodelling for gannet that it considered not materially different from those in the ES and

suggested that the ExA could therefore have full confidence in the suitability and robustness of the assessment in the ES. It went on to say that it would, nevertheless, be following NE's advice to review the approach taken for some key species of seabirds.

- 4.8.54. The ExA considered any implications for the Examination process arising from the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, and in particular Regulation 20, 'Accepted application - effect of environmental statement being inadequate'. Given the Applicant's assertion that the assessment outcomes seemed most unlikely to be materially different from those in the ES, the ExA was reassured that, while the revisions were necessary, there was no reason to believe that the new baseline would make a material change to the outcome of the assessment.
- 4.8.55. The ExA considered that changes to data and analysis are not uncommon throughout the course of an Examination. Indeed, that could be viewed as a benefit of the process, where iterative feedback could be used to review and revise the information accordingly. The decision as to whether such an update constituted 'further information' was a matter of degree and judgement.
- 4.8.56. The ExA noted that there is no specific procedure in the EIA Regulations relating to the submission of updated environmental information during the course of an Examination, except where the ExA has expressly asked for it. In this case, the information was already being prepared by the Applicant and the ExA had been given firm assurances that it would be submitted into the Examination at Deadline 6 at the latest, some 4 weeks before the close of the Examination. All parties closely associated with consideration of ornithological issues were actively participating in the Examination and had access to all of the discussions and submitted documents. As such, the ExA was satisfied that no party would be prejudiced in relation to consultation or the opportunity to provide submissions on the revised baseline.
- 4.8.57. Overall, the ExA determined that invoking Regulation 20 was unwarranted, based on its acceptance of the Applicant's assertion that the work would be submitted, and the Applicant's assurance that the early indications were that the outcome would have no material implication for the assessment presented in the ES. Whilst it was prepared to reconsider this decision should either of these two assumptions prove to be incorrect once the revised submissions had been received, this proved unnecessary as the information was provided and later accepted as reliable by both NE [REP7-104] and the RSPB [REP7-099].
- 4.8.58. At ISH11, the Applicant confirmed [REP6-038] that the updated baseline had been used in the revised assessment set out in its Ornithology Environmental Impact Assessment EIA and HRA Annex [REP5a-012], and that no material difference had been found between the original and revised assessment outputs. In response to oral questioning from the ExA, the Applicant replied that it did not intend to submit updated ES

chapters, as the Ornithology EIA and HRA Annex, which contained all relevant information, would be added to Schedule 15 of the draft DCO as a certified ES document.

- 4.8.59. NE [REP6-055] considered the retention of the original information in the ES unacceptable and believed that the ES chapters should have been fully updated to incorporate the revised baseline and assessment, not least to avoid confusion for the authors of cumulative effects chapters for subsequent offshore wind farm and other relevant proposals.

ExA's conclusions on the adequacy of the EIA and ES

- 4.8.60. In reaching the overall conclusions and recommendation set out in this Report, the ExA has considered all documentation relevant to the EIA in the context of the requirements of the EIA Regulations.
- 4.8.61. Concerns in relation to the EIA process and the format of the ES were submitted by several parties during the Examination, including NE, the MMO and Historic England. These were largely due to the Applicant's adopted 'proportionate' approach, and the relegation of much of the detail to a complex library of annexes and appendices. With subsequent explanation and amendment where necessary, many of the parties' reservations were overcome, but some fundamental concerns remained.
- 4.8.62. The rather novel approach to mitigation route mapping caused several parties and indeed the ExA some difficulty in checking the robustness of the secured pathways from the identification of impacts through to securing the necessary mitigation. However, with the additional material and explanations, the ExA is satisfied that mitigation route mapping is now comprehensive, such that the Secretary of State could rely on it in reaching a decision, and that there is sufficient clarity for the authorities that would ultimately be responsible for discharge of Requirements and deemed marine licence Conditions to understand the scope and necessary detail that would be needed in the detailed management plans submitted to them for that purpose.
- 4.8.63. Notwithstanding these reservations, the ExA is satisfied that, with the additional clarification, incremental improvements, and additional safeguards provided during the course of the Examination, the final documentation in its entirety represents a compliant ES that enables the Secretary of State to take a decision in conformance with the EIA Regulations.

4.9. HABITATS REGULATIONS ASSESMENT

- 4.9.1. The Conservation of Habitats and Species Regulations 2017 (as amended by The Conservation of Habitats and Species (Amendment)(EU Exit) Regulations 2019) and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (also as amended) are relevant to this application as the Proposed Development would have the potential to affect a number of Special Areas of Conservation and Special Protection

Areas. These are collectively termed 'European sites' and form part of a network of protected sites across the UK known as the 'National Site Network'.

- 4.9.2. The Proposed Development has been identified as giving rise to likely significant effect on European sites and as such the SoS will need to undertake an appropriate assessment. To help such an assessment the Applicant submitted a RIAA with the application [APP-168, amended by AS-015]. The RIAA was updated at various points during the Examination with the final version being submitted at D5 [REP5-012].
- 4.9.3. In accordance with Section 4.3 of NPS EN-1 the ExA has considered all matters and documentation relevant to the HRA and taken it into account when reaching the conclusions contained within this Report. Chapter 12 considers HRA in more detail including the ExA's considerations and recommendations in relation to it.
- 4.9.4. The ExA is satisfied that the evidence submitted in relation to HRA with the application and over the course of the Examination provides an adequate basis on which the SoS can fulfil the duties of the competent authority.

5. FINDINGS AND CONCLUSIONS IN RELATION TO NEED

5.1. LEGISLATION AND POLICY CONSIDERATIONS

National Policy Statements

- 5.1.1. Paragraph 2.2.1 of the Overarching National Policy Statement for Energy EN-1 (NPS EN-1) states that the Government is, "... *committed to meeting our legally binding target to cut greenhouse gas emissions by at least 80% compared to 1990 levels*".
- 5.1.2. Part 3 of NPS EN-1 deals with the need for new nationally significant energy infrastructure projects. Paragraph 3.13 of NPS EN-1 states that, "*To meet its 2050 emissions reductions goals, the UK needs to move away from fossil fuels not only as a source of electricity generation, but also in other sectors of industry and for heating and surface transport. Increasing the supply of low carbon electricity is an essential pre-requisite for the switch away from fossil fuels in these areas, and this will further substantially increase demand for electricity.*"
- 5.1.3. Paragraph 3.1.4 of NPS EN-1 states that the decision maker should give substantial weight to the contribution that energy projects would make towards satisfying need for energy. Paragraph 3.3.15 refers to there being an urgent need for new (and particularly low carbon) energy Nationally Significant Infrastructure Projects (NSIPs), "*to be brought forward as soon as possible, and certainly in the next ten to fifteen years given the crucial role of electricity as the UK decarbonises its energy sector.*"
- 5.1.4. Paragraph 3.4.1 of NPS EN-1 cites the commitment for the UK to source 15% of its total energy, across the sectors of transport, electricity and heat, from renewable sources by 2020.
- 5.1.5. The NPS for Renewable Energy Infrastructure EN-3 (NPS EN-3) highlights that electricity generation from renewable sources of energy was an important element of the Government's development of a low-carbon economy. It recognises that there were ambitious renewable energy targets in place and a significant increase in generation from large-scale renewable energy infrastructure was necessary to meet the 15% renewable energy target (paragraph 1.1.1).

Climate Change Act 2008

- 5.1.6. Through the Climate Change Act, 2008, the UK set a legally binding emissions reduction target of 34% of the 1990 levels of greenhouse gas (GHG) emissions by 2020 and at least 80% of the '1990 baseline'. The '1990 baseline' was defined as comprising the aggregate amount of net UK emissions of carbon dioxide (CO₂) for that year and the net emissions of each of the other targeted greenhouse gases for the year that is the base year for that gas.

- 5.1.7. The Climate Change Act, 2008 included the requirement for the Secretary of State (SoS) to set carbon budgets for each five-year budgetary period beginning with the period 2008-2012. It also created a statutory body, the Committee on Climate Change (CCC), to advise on setting carbon budgets and on tackling and preparing for climate change.

Climate Change Act 2008 (2050 Target Amendment) Order 2019

- 5.1.8. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 introduced a revised target of achieving net zero greenhouse gas emissions by 2050. This legislated for a 100% reduction in greenhouse gas emissions instead of the 80% reduction that had originally been stated in the Climate Change Act 2008.

Energy White Paper 2020

- 5.1.9. The Energy White Paper: 'Powering our Net Zero Future', December 2020 (the Energy White Paper), stated that, "*The UK has set a world-leading net zero target, the first major economy to do so, but simply setting the target is not enough – we need to achieve it. Failing to act will result in natural catastrophes and changing weather patterns, as well as significant economic damage, supply chain disruption and displacement of populations.*"
- 5.1.10. It goes on to state that, "*This white paper puts net zero and our effort to fight climate change at its core, following the Prime Minister's Ten Point Plan for a Green Revolution ... This includes building on our leadership in offshore wind to target 40GW by 2030 – enough to power every home in the UK – which alone will support up to 60,000 jobs.*"
- 5.1.11. As referenced in the Energy White Paper, included in the Ten Point Plan was the aim that "*By 2030 we plan to quadruple our offshore wind capacity so as to generate more power than all our homes use today, backing new innovations to make the most of this proven technology and investing to bring new jobs and growth to our ports and coastal regions.*" A key commitment in the Energy White Paper was, "*Targeting 40GW of offshore wind by 2030, including 1GW of floating wind, alongside the expansion of other low-cost renewable technologies.*"
- 5.1.12. Figure 3.2 of the Energy White Paper set out a Department for Business, Energy and Industrial Strategy analysis of the potential electricity demand at 2020, 2035 and 2050 using lower and higher demand scenarios for the latter two years. This indicated that electricity demand could double from 2020 to 2050.

Net Zero Strategy: Build Back Greener, 2021

- 5.1.13. This Strategy set out the Government's plans for reducing emissions from each sector of the economy, while hoovering up any remaining emissions with greenhouse gas removals. Amongst the key policies it contained a target of 40GW of energy generated from offshore wind by

2030. The Strategy stated that a clean, reliable power system would be the foundation of a productive net zero economy and referenced the intention of fully decarbonising the UK's power system by 2035.

British Energy Security Strategy, 2022

- 5.1.14. The British Energy Security Strategy (BESS) was published by the Government in April 2022. The 'Introduction' section of BESS referenced both the reopening of the global economy after the COVID-19 pandemic and the illegal invasion of Ukraine as being factors that have pushed up gas and coal prices. It then went on to state that, "*Accelerating the transition away from oil and gas depends on how quickly we can roll out renewables.*"
- 5.1.15. In terms of offshore wind, BESS stated that, "*Our ambition is to deliver up to 50GW by 2030, including up to 5GW of innovative floating wind*". BESS also referred to strengthening the Renewable [Energy] Policy Statements to reflect the importance of energy security and net zero. It also stated the aim to cut the process time by half by introducing measures such as making environmental considerations at a strategic level and working with the Offshore Wind Acceleration Task Force.
- 5.1.16. As regards energy storage, BESS referenced, "*encouraging all forms of flexibility with sufficient large-scale, long-duration energy storage to balance the overall system by developing policy to enable investment.*"

The Sixth Carbon Budget: The UK's Path to Net Zero, December 2020

- 5.1.17. In the Sixth Carbon Budget (2033-2037), the CCC presented a recommended pathway that required a 78% reduction in UK territorial emissions between 1990 and 2035. In effect this would bring forward the UK's previous 80% reduction target by fifteen years. It also noted that the UK offshore wind capacity was 10GW in 2019 with another 10GW having been contracted and which would start generating in the 2020s.
- 5.1.18. The Sixth Carbon Budget stated that, "*Costs of renewables have fallen significantly, with offshore wind costs falling from £150/Megawatt hour (MWh) to £45 MWh over the last decade.*"

Emerging policy - Draft Overarching National Policy Statement for Energy (EN-1), September 2021

- 5.1.19. A Draft Overarching National Policy Statement EN-1 was published for consultation in September 2021. Among other matters, the draft NPS EN-1 referenced the Climate Change Act 2008 (2050 Target Amendment) Order 2019 and stated the role of the five-year carbon budgets in ensuring a trajectory consistent with meeting the net zero by 2050 target. Paragraph 2.2.4 of the Draft NPS EN-1 cited the sixth carbon budget that was announced by the Government in April 2021, which would legislate to reduce GHG emissions by about 78% by 2035 compared to 1990 levels.

- 5.1.20. As regards the role of wind power, the Draft NPS EN-1 stated that, *“Wind and solar are the lowest cost ways of generating electricity ... Our analysis shows that a secure, reliable, affordable net zero consistent system in 2050 is likely to be composed predominantly of wind and solar.”*

5.2. THE APPLICANT’S CASE

- 5.2.1. The Applicant’s case for the Proposed Development in terms of need was primarily set out in its Statement of Need [APP-234] which was updated with a final version at Deadline 7 (D)7 [REP7-052]. The main difference between these two versions was that in the latter [REP7-052], the Applicant amended previous references to the possible use of hydrogen as an energy balancing infrastructure (EBI) technology. Nevertheless, the Proposed Development still proposes EBI in order to assist in ensuring a continuity of energy supply from the Proposed Development.
- 5.2.2. In the Statement of Need [REP7-052, paragraph 5.4.1.13] the Applicant noted that offshore wind generated nearly 40 terawatt hours (Twh) of power in 2019 rising to 46TWh in 2020. In terms of alternative sources, section 5.5 of the Statement of Need assessed the potential contribution of new nuclear projects in the UK to reduce UK carbon emissions. The Applicant noted that whilst Hinkley Point C was due to become operational in 2026, it was also the case that other sites such as Dungeness B, Hunterston, Heysham 1 and Hartlepool either have closed or are due to close by the end of 2024. The Applicant also noted in Table 5.2 of the Statement of Need that no larger-scale wave or tidal energy generation schemes were yet to be deployed.
- 5.2.3. In its Statement of Need, the Applicant considered that the future daily profile of electricity demand was less easy to forecast [REP7-052, paragraph 7.6.1.1]. Nevertheless, the Applicant contended that, *“To enable the Net-Zero transition, it is clear that the power generation sector must both increase in capacity and reduce in carbon intensity on an unprecedented scale”* [REP7-052, paragraph 8.1.1.1].
- 5.2.4. In terms of the economic case for offshore wind the Applicant referred to Figure 10.3 of its Statement of Need [REP7-052] which depicted the Levelized (*sic*) Cost of Energy for various forms of energy generation. Whilst Figure 10.3 was primarily focussed on the American market, the Applicant concluded that this demonstrated that, *“wind power is already more economically attractive than all other existing forms of generation and is matched only by utility scale PV [Photovoltaics]”* [REP7-052, paragraph 10.3.1.1].
- 5.2.5. The Applicant concluded that:
- “The Hornsea Four development proposes a substantial infrastructure asset, capable of delivering large amounts of cheap, low-carbon electricity. Maximising the capacity of generation in the resource-rich, accessible and technically deliverable Hornsea Zone, is to the benefit of all GB consumers, and the wind industry generally.”*

5.2.6. And:

"The delivery of Hornsea Four would deliver a significant reduction in risk associated with the forward delivery of offshore wind projects to meet government's revised ambition and deliver important decarbonisation and security of supply aims" [REP7-052, paragraph 9.19].

5.3. ExA RESPONSE AND CONCLUSIONS

5.3.1. The Climate Change Act 2008 (2050 Target Amendment) Order 2019 has intensified the UK Government's commitment to reducing GHG emissions, with the implementation of a target to achieve net zero by 2050. Furthermore, BESS and the Energy White Paper have emphasised the role of offshore wind in achieving this ambitious target. BESS raised the overall target for the contribution of offshore wind from the 40GW by 2030 that was stated in the Energy White Paper to an aspiration of up to 50GW by 2030. This demonstrates the increasing importance that the Government has ascribed to offshore wind in both the overall mix of energy generation and in meeting targets for GHG.

5.3.2. The current NPS EN-1 was designated in 2011 and in the intervening eleven years there has been a strengthening of the targets for reducing GHG emissions up to that of achieving net zero by 2050. In this regard the current NPS EN-1, when also considered in the context of recent policy and legislation, can be regarded as representing a stage along the way towards decarbonisation rather than a final destination in itself. Nevertheless, the ExA considers that, when taken together with other legislation and guidance, NPS EN-1 demonstrates a strong presumption in favour of the provision of energy infrastructure projects and in particular those that would assist in meeting the net zero target.

5.3.3. The Draft NPS EN-1 published in September 2021 incorporates a commitment to achieving net zero by 2050 and it indicates a direction of travel that goes beyond the current NPS EN-1 in terms of reducing GHG emissions. However, due to its draft status the ExA can assign it only limited weight, as NSIP decisions need to be made in the framework of designated policy. The ExA is aware that the current policy position is dynamic and should any new NPSs or other relevant policy be designated before a decision is made then this is a matter on which the SoS would need to be satisfied.

5.3.4. Overall, the ExA considers that there is a compelling need for new renewable energy projects to be developed, a significant proportion of which in terms of generation capacity would be provided by offshore wind. Furthermore, recent events in Ukraine have clearly raised the importance of energy security and, irrespective of climate change considerations, have further strengthened the need for the UK to develop both alternatives to, and alternative markets for, imported gas and oil for future energy supplies.

5.3.5. As secured in Requirement 2 of the draft DCO [REP7-039] the Proposed Development would be capable of providing up to 180 wind turbine

generators (WTGs) that would not exceed a height of 370m when measured from the lowest astronomical tide to the tip of the vertical blade. As noted by the Applicant in its Planning Statement [APP-229, paragraph 2.5.1.4], *“Offshore wind turbine models are constantly improving as new technology evolved. Therefore, the exact design of the turbine will be finalised post-consent.”* Consequently, the Applicant has not specified any detailed output per WTG nor the exact number of WTGs that would be installed, beyond a minimum, *“gross electrical output of over 100MW”* that is defined in Work No.1 of the Draft DCO [REP7-039]. The Statement of Need refers to a 2.6GW connection capacity agreement with National Grid [REP7-052, paragraph 9.16] but this is not secured in the draft DCO.

- 5.3.6. Therefore, it is not possible at this stage to make a precise calculation as to the proportion of the envisaged 50GW of wind energy that the Proposed Development would contribute. Despite this lack of clarity at this stage, in the ExA’s view it would be reasonable to consider that the Proposed Development would make a material contribution towards achieving the target of up to 50GW of offshore wind by 2030.
- 5.3.7. As stated in the Non-Technical Summary [APP-006, amended by AS-022] the envisaged overall construction duration for both the offshore and onshore elements of the Proposed Development would be a maximum 61 months. Offshore wind is now a well-established technology and the ExA has no reason to doubt that the Proposed Development could be constructed in this timeframe. Therefore, despite uncertainty remaining over the precise output, with an anticipated maximum overall construction duration of 61 months the Proposed Development comprising up to 180 WTGs could come on stream towards the latter part of the 2020s. Consequently, it is quite possible that the Proposed Development would be in operation before the 2030 delivery date for up to 50GW of offshore wind generation capacity cited in BESS. It is also highly likely that the Proposed Development would be operational before any new nuclear projects become operational, apart from potentially Hinkley Point C, or any large-scale tidal power projects.
- 5.3.8. As such, the Proposed Development would clearly contribute towards meeting the net zero obligation that is enshrined in law in the Climate Change Act 2008 (2050 Target Amendment) Order 2019 and in meeting rising future energy demand. Furthermore, with the addition of EBI, the Proposed Development has the potential to level out some of the inevitable fluctuations in energy generation that arise from operational offshore wind projects.
- 5.3.9. Taking all of this into account, the ExA concludes that, notwithstanding the consideration of project-specific issues, the overarching need argument for the Proposed Development is very strong in terms of meeting the urgent need for low carbon energy, deliverability within a reasonable timeframe to meet growing energy demands, ensuring security of supply and on economic grounds, with costs for offshore wind having fallen significantly in the last decade. Therefore, the overall need argument weighs heavily in favour of making the Order.

6. FINDINGS AND CONCLUSIONS IN RELATION TO SITE SELECTION AND ALTERNATIVES

6.1. POLICY AND LEGISLATIVE CONSIDERATIONS

6.1.1. Regulation 14(2)(d) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, as amended, (the EIA Regulations) requires an ES to include a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment.

National Policy Statements

6.1.2. The Overarching National Policy Statement for Energy EN-1 (NPS EN-1) states in section 4.4 that applicants must include information about the main alternatives they have considered in their Environmental Statement (ES). Paragraph 4.4.1 of NPS EN-1 goes on to state that: *"From a policy perspective this NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option."* However, NPS EN-1 does also identify the following circumstances where there is a requirement to consider alternatives:

- under specific circumstances. For example, in relation to the requirements of the Habitats Directive (paragraph 4.4.2) makes it clear that the consideration of alternatives must be a proportionate exercise;
- development should seek to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives (paragraph 5.3.7). This is considered in the Onshore Ecology Section of Chapter 12; and
- in respect of flood risk a Sequential Test should be applied as part of site selection (paragraph 5.7.9). This is considered in the Onshore Water Environment Section of Chapter 12.

6.1.3. Paragraph 4.4.3 of NPS EN-1 sets out a series of guiding principles in regard to deciding what weight should be given to alternatives. In summary these are as follows:

- the consideration of alternatives should be carried out in a proportionate manner;
- the SoS should be guided by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity in the same timescale as the Proposed Development;
- the SoS should not reject an application for development on one site simply because fewer adverse impacts would result from development of another site. Also, regard should be had to the possibility that all

suitable sites for that energy infrastructure type may be needed for future proposals;

- alternatives not among the main alternatives studied by the applicant should only be considered to the extent that the decision maker thinks they are both important and relevant to its decision;
- if the existence of a hypothetical alternative proposal would not be in accordance with the policies set out in the relevant NPS then such existence is unlikely to be important and relevant;
- alternative proposals which mean the necessary development could not proceed on, for example, commercial viability grounds can be excluded on the grounds that they are not important and relevant to the SoS's decision.
- where an alternative is first put forward by a third party the onus is on the person proposing the alternative to provide the evidence for its suitability and the SoS should not necessarily expect the applicant to have assessed it.

6.1.4. The Habitats Regulations Assessment (HRA) process requires a consideration of alternatives if a plan or project fails the integrity test, as do the specific requirements of NPS EN-1 sections 5.3 (biodiversity) and 5.9 (landscape and visual).

6.2. THE APPLICANT'S CASE

Offshore site selection and alternatives

6.2.1. The Applicant's description of the site selection process and consideration of alternatives for the offshore element of the Proposed Development is set out in Volume A1 Chapter 3 of the Environmental Statement (ES) [APP-009] and also in ES Volume A4 Annex 3.2 Selection and Refinement of Offshore Infrastructure [APP-037].

6.2.2. Volume A4, Annex 3.2: Selection and Refinement of Offshore Infrastructure [APP-037] documented the decision making behind the selection of offshore element of the Electrical Infrastructure Study Area (EISA). Table 1 [APP-037] set out the five key stages of the route planning and site selection (RPSS) process and Table 2 [APP-037] summarised the RPSS programme, which included the consultation stages.

Offshore array area

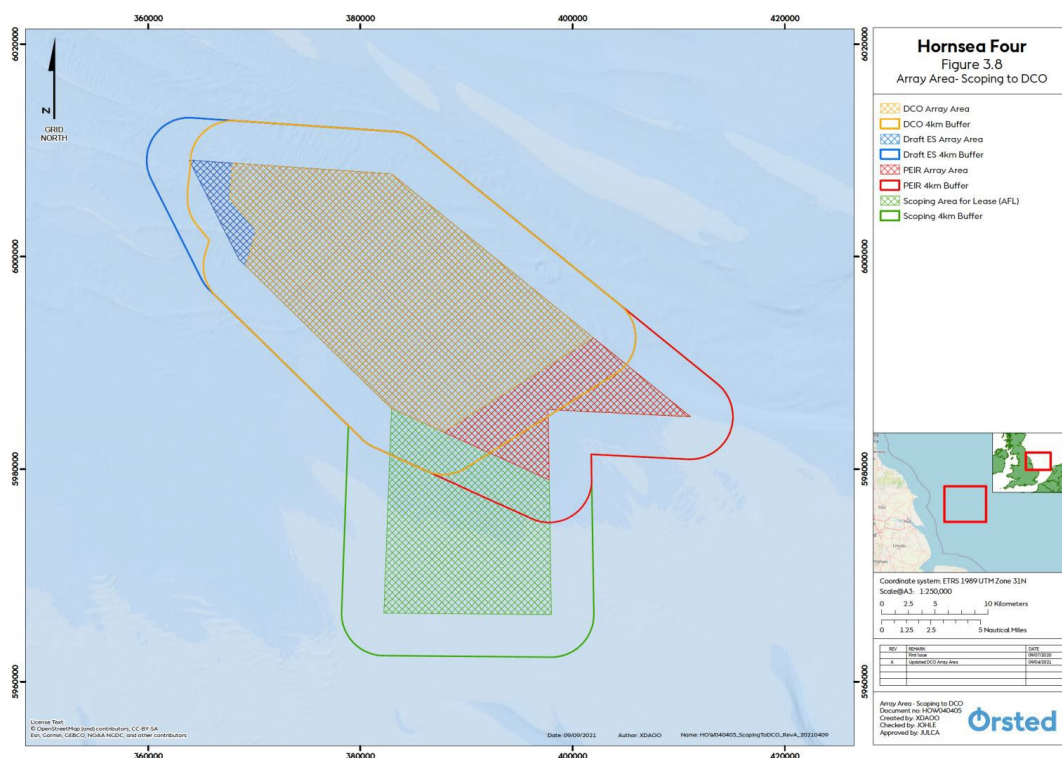
6.2.3. The Applicant noted that the former Hornsea Zone was one of nine offshore wind zones around the United Kingdom coast that was identified by The Crown Estate in its third round of offshore wind licensing [APP-009]. The starting point for the location of the offshore array area was the Agreement for Lease (AfL) that arose following the termination of the Hornsea Zone Development Agreement, following which a new, project-specific AfL was agreed with The Crown Estate⁴. Leading up to the submission of its DCO application the Applicant refined the scope of the

⁴ AfL in [APP-037] is defined as Agreement for Lease but is stated as Area for Lease in [APP-009] the ExA has assumed that this is at typo.

proposed array area. The first stage of this was during the period between conclusion of the AfL and receipt of the EIA Scoping Opinion [APP-009, paragraph 3.11.1.1].

6.2.4. The Applicant explained how it had further refined the developable offshore array area as a result of EIA Scoping consultation [APP-235] and also feedback following publication of the Preliminary Environmental Information Report (PEIR). The Applicant reported that it had undertaken a 'Developable Area Approach', which included the consideration of physical, biological and human constraints within the AfL area in order to balance consenting and commercial considerations with technical feasibility. Figure 3.8 of ES Volume A1 Chapter 3 [APP-009] depicted these various stages in terms of how that affected the spatial extent of the array area. The Applicant explained that the array area was reduced at the PEIR stage to reduce the potential impacts on seabird populations [APP-037, paragraph 5.4.1.1]. As reported in the Selection and Refinement of Offshore Infrastructure [APP-037, paragraph 5.4.2.2] this process resulted in a reduction in the extent of the array area from 846 km² at the AfL stage to 600 km² in the PEIR and subsequently to 478 km² for the Proposed Development in the DCO application.

Figure 6.1 Reductions to array area



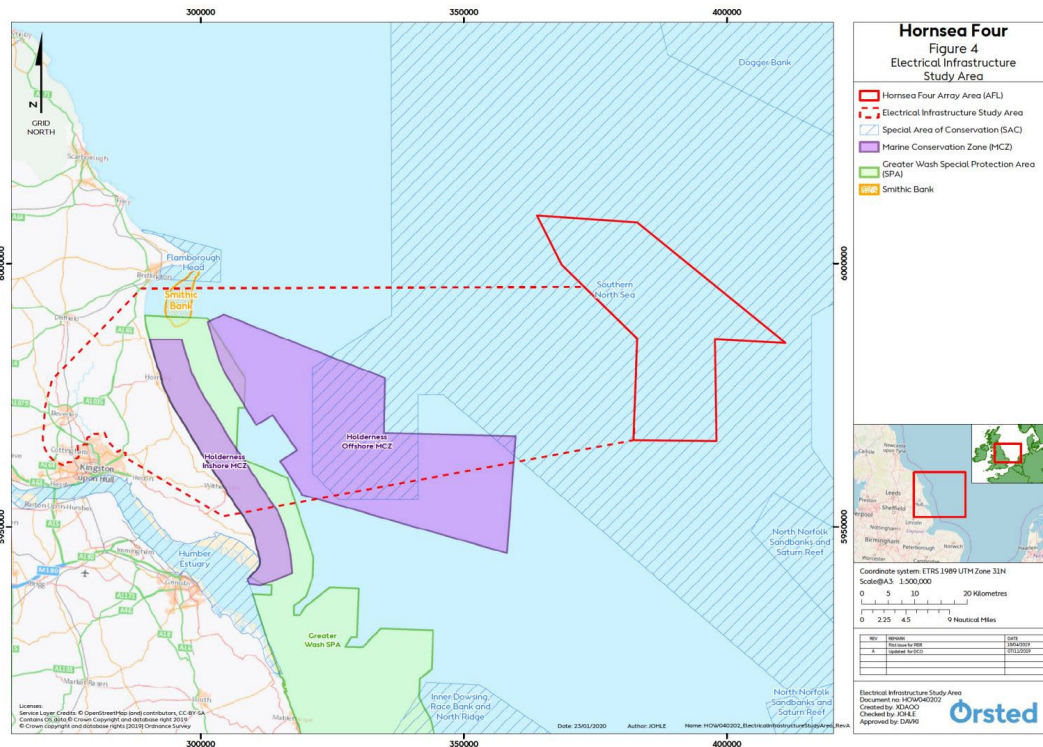
Offshore Export Cable Corridor

6.2.5. As stated in Volume A4, Annex 3.2 [APP-037, paragraph 2.1.1.1] the guiding principle for the offshore Export Cable Corridor (offshore ECC) alignment was to provide the shortest possible route from the offshore AfL area to the selected landfall site whilst avoiding constraints, including

avoidance of crossing either the Holderness Inshore Marine Conservation Zone (MCZ) or the Holderness Offshore MCZ.

6.2.6. In addition, the offshore ECC was aligned so as not to cross either the Greater Wash Special Protection Area (SPA), the Flamborough and Filey Coast SPA or the Flamborough Head Special Area of Conservation (SAC). This is set out in Figure 4 of [APP-037].

Figure 6.2 Hornsea Four Electrical Infrastructure Study Area (EISA)



6.2.7. Tables 8 and 9 of the Selection and Refinement of Offshore Infrastructure [APP-037] set out the assessment criteria and a 'BRAG Assessment' (black, red, amber and green) for four potential routes for the offshore ECC. The BRAG assessment included the following considerations that had been grouped into three categories as follows:

- Technical: cable length, geology, bathymetry, seabed features, seabed slopes and seabed obstructions;
- Environmental: nature conservation sites, archaeology, navigational aids, shipping lanes, recreation and anchorages; and
- Commercial: oil and gas infrastructure electrical export cables, commercial fisheries, carbon capture and storage.

Onshore site selection and alternatives

6.2.8. In ES Volume A1 Chapter 3 'Site Selection and Consideration of Alternatives' [APP-009], the Applicant set out its approach to selection of a location for the Proposed Development and its consideration of alternatives in relation to onshore elements. The Applicant set out five

key stages [APP-038, Table 1] to its process of site selection, taking account of environmental, technical and commercial matters

Landfall

- 6.2.9. The Applicant's approach to consideration of offshore elements were identified as Stages 1 and 2 of its five key stages. These are considered in Chapter 12 of this Report. Site selection for onshore infrastructure was assessed by the Applicant beginning at Stage 3 - the identification of provisional landfall locations along the coastline [APP-036]. The Applicant identified potential landfall locations along the coastline from north of Spurn Head to just south of Bridlington.
- 6.2.10. This stretch of coastline was further divided into zones which provided the starting point for a desk-based assessment to aid the Applicant's landfall selection. Two potential landfall sites emerged, both located south of Flamborough Head and north of the village of Barmston. These sites were assessed by the Applicant in terms of their physical, commercial and environmental considerations, as well as the technical feasibility of landfall construction at each location, leading to the selection of the stretch of the Holderness coastline for the landfall of the Proposed Development offshore export cables.

Onshore sub-station (OnSS) site selection and onshore export cable corridor

- 6.2.11. The National Grid Creyke Beck substation north of Hull and south of Beverley is the allocated grid connection for the Proposed Development. Stage 4 of the Applicant's process for site selection and consideration of alternatives was concerned with identification of the site for the OnSS together with energy balancing infrastructure (EBI) as required for supply to the National Grid. Stage 5 defined the offshore and onshore export cable corridor (ECC).
- 6.2.12. In its site selection process for the OnSS [APP-038] the Applicant initially identified an initial 3 kilometre (km) radius around the Creyke Beck substation. The area within this radius was refined by the exclusion of heavily constrained areas and then further adjusted after the Applicant determined that one of the two routes identified for the onshore ECC was unsuitable [APP-038, section 2.2 and Table 11]. The Applicant subdivided the remaining area in the original 3km radius into four zones and each was assessed against environmental constraints [APP-038, Table 4]. Following this assessment, three of the four zones were found to contain sufficiently severe constraints to development that they were removed from further consideration by the Applicant. The search area referred to by the Applicant as zone 2 was retained for further refinement.

OnSS access route

- 6.2.13. The Applicant carried out an appraisal of potential access routes for the OnSS alongside its appraisal of potential sites. This appraisal work was carried out to establish whether there were suitable access points from the surrounding highway network.

- 6.2.14. Two potential site options (site A and site B) were identified within zone 2, based on parameters defined by the Applicant [APP-038, Table 5]. The Applicant then assessed these options against key technical, consenting and commercial criteria [APP-038, Table 7]. The Applicant concluded its site selection process by identifying site B in zone 2 as the preferred location for the OnSS [APP-038, paragraph 2.3.5.1].

6.3. PLANNING ISSUES

Onshore site selection and alternatives

- 6.3.1. Gordons LLP and Quod made a number of representations on behalf of Mr and Mrs Dransfield who reside at Jillywood Farm adjacent to the proposed OnSS access route. In response to ExQ2 [REP5-100] Quod explained what it considered would be a better, alternative access to the OnSS for both construction and operational use.
- 6.3.2. Objections were also raised by Lockington Parish Council (LPC) in relation to the location of the proposed primary logistics compound on the outskirts of Lockington [RR-019] and [REP1-075]. The Applicant proposed that the primary logistics compound would be located on the western side of the A164 and would be accessed off the initial stretch of Station Road that leads towards the village of Lockington (hereafter referred to as Station Road West). LPC's view was that the primary logistics compound could be located at an alternative location, to the north-east quadrant of the Station Road and A416 crossroads.

Implications of the Offshore Transmission Network Review

- 6.3.3. In ExQ1, the Applicant was asked about the Offshore Transmission Network Review (OTNR) [PD-006, BGC.1.10]. The Applicant responded in [REP2-038] that it agreed with the decision made by the Secretary of State in both the Norfolk Boreas and Norfolk Vanguard decision letters which stated that, *"The proposed onshore transmission element complies with the current policy and regulatory regime, and the OTNR does not require live applications to be deferred pending its outcome."*

Offshore site selection and alternatives

Proposed Endurance aquifer carbon store

- 6.3.4. During the course of the Examination, bp on behalf of the Northern Endurance Partnership raised concerns about the overlap area between part of the array area for wind turbine generators and the Endurance Store which it is proposing to use for the storage of carbon. This matter is considered in detail in Chapter 10 of this Report.

Habitats Regulations Assessment (HRA) considerations

- 6.3.5. To assist the SoS as competent authority, the ExA sets out its consideration of alternatives in relation to HRA in Chapter 13 of this Report. Chapter 13 also reports on revisions to the maximum design scenario for the Proposed Development in response to EIA and HRA considerations. The overarching need case for renewable energy

projects, including offshore wind farms, and for the Proposed Development is addressed in Chapter 5 of this Report.

- 6.3.6. In terms of the offshore array area the ExA notes that the Applicant had refined the area as a result of the EIA Scoping consultation and also feedback following publication of the Preliminary Environmental Impact Report (PEIR) [APP-009, Figures 3.3 and 3.8]. The Applicant confirmed the blade tip clearance height above Lowest Astronomical Tide (LAT) for the wind turbine generators as 42.43m from LAT to the lowest point of the rotating blade (40m above Mean Sea Level) [APP-010, page 28].

6.4. ExA RESPONSE

Onshore site selection and alternatives

- 6.4.1. The concerns set out above together with the Applicant's response to these concerns and the ExA's findings on these matters are set out in further detail in Section 12.3 of this Report: Traffic and Transport including Public Rights of Way. Taking this into account, the ExA is satisfied that the site selection process and the consideration of alternatives has been appropriately undertaken by the Applicant in respect of the onshore elements of the Proposed Development.

Offshore site selection and alternatives

- 6.4.2. The ExA has considered the refinement process that the Applicant has undertaken for both the offshore array area and the offshore ECC including a proposed zone within which an offshore HVAC booster station would be located, depending on the transmission technology selected.
- 6.4.3. The Applicant noted [APP-037] that the baseline ornithological survey data identified considerable ornithological interest within the AfL array area, and that this was concentrated around the southernmost and northernmost areas. The Proposed Development excludes the southernmost extent of the AfL area but retains most of the northernmost section, albeit with an area of the north-west part of the AfL area removed.
- 6.4.4. The ExA has not been presented with any evidence that an alternative array area for the Proposed Development within the overall AfL area would be demonstrably preferable in terms of the environmental or other constraints that have been considered.
- 6.4.5. The route for the offshore ECC [APP-037, Figure 4] was selected to pass through the relatively narrow gap between Flamborough Head and the northern boundaries of the Holderness Offshore Marine Conservation Zone (MCZ) and the Greater Wash Special Protection Area (SPA). Alternative routes for the Offshore ECC would either have to pass through at least one of those designated sites or would require the construction of a longer offshore ECC and a longer onshore ECC. The ExA therefore considers the selection of the offshore ECC route to be reasonable.

- 6.4.6. It is also the ExA's view that the Applicant's approach in terms of the EIA and consultation in relation to the assessment and reporting of alternatives is reasonable and adequate and in accordance with national policy objectives.

6.5. CONCLUSIONS

- 6.5.1. The ExA is content that the Applicant has explored reasonable alternatives in terms of both the location and extent of the offshore array area, within the constraints imposed by The Crown Estate's leasing process.
- 6.5.2. Furthermore, the ExA concludes that the Applicant has undertaken an appropriate site selection process, having considered alternatives with due regard to the environmental, commercial and technological constraints, for: the route of the offshore ECC; the offshore export cable landfall; the onshore ECC route; and the site for the OnSS and its access.

END OF VOLUME 1

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